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Remarks

This document serves as a guide for the planning and technical implementation of the Siedle Access system. It is designed to provide an overview of the key points that need to be observed.

This document supplements and is supplemented by the Access server commissioning instructions. To supplement this system manual, you will find the latest edition in the download area of our website on www.siedle.com

For complex systems or special requirements, the technical consultants in Project Sales will be pleased to advise you. (For detailed information, see page 163)

We accept no liability for modifications / additions, mistakes or printing errors.

1 Safety remarks

Electrical distribution boards and IT cabinet systems



Please make sufficient provisions in the electrical distribution boards/IT cabinet system for later expansion, changes or subsequent disassembly (service/maintenance).

Plan the electrical distribution board/ the IT cabinet system so that the heat generated by all installed components is adequately dissipated and cannot impair any functions or cause damage to the components or infrastructure at the installation site.

During planning, take the applicable legal provisions, standards, directives and safety instructions for the operation/installation site into account.

All system components which are designed for/suitable for installation in an electrical distribution board or in an IT cabinet system/housing may only be installed in the permitted installation position according to the enclosed product information.

If system components are operated in improper installation positions or with improper operating parameters (e.g. excessive ambient temperature), this will render their warranty rights void in the event of service.



Be aware of inrush currents, including when power is restored after power failures. Protect max. 6 ATLC/NG 670-... with a B 16A circuit breaker; if necessary, an appropriate inrush current limiter must be provided by the customer.

Electrical voltage



Mounting, installation and servicing work on electrical devices may only be performed by a suitably qualified electrician. Failure to observe this regulation could result in the risk of serious damage to health or fatal injury due to electric shocks.

Devices with 230 V connection

In accordance with DIN VDE 0100 part 410, section 411.1.3 attention must be paid to ensuring a safe separation between system lines and the mains voltage; i.e. system and mains cores must not be permitted to touch! The system line cable (extra-low safety voltage) must be stripped back by the minimum possible.

Electrostatic charging



As a result of electrostatic charging, direct contact with the circuit board can result in destruction of the device. Direct contact with the circuit board must therefore be avoided.

- When working at the device, observe the remarks relating to mains cut-off.
- Observe the DIN EN 60065 standard! When establishing the electronic connection, observe the requirements of VDE 0805 or EN 60950.
- The building installation must include an all-pole mains switch with a contact separation of at least 3 mm.
- Ensure maximum fusing of 16 A for the mains connection in the building installation.
- When planning large-scale (complex) systems, the distributor space required for the switch panel mounting devices must be taken into consideration in the distributor planning process.
- No external voltages >30 V AC/DC may be applied to system users.

Device placement

Avoid direct sunlight / prolonged exposure to heat: If devices are exposed to sunlight for a prolonged period of time, the device's surface temperature or the temperature inside the device may exceed the maximum permitted ambient temperature for operation. Observe the permissible temperature range.

For mounting situations with optimum positioning and alignment, consider the lighting conditions, as these can affect the image capture of cameras or the legibility of device user interfaces.

The following installation situations must be avoided without fail:

- Direct backlight
- Direct sunlight
- Reflective surfaces
- Direct light sources such as spotlights
- Very bright picture background
- Highly reflective walls opposite the device

Protect your network!

Only use up-to-date components and terminals in the network in line with the latest state of the art. Regularly update the operating systems of all components and terminals. Exchange obsolete components and terminals for up-to-date models. Use professional protective software (antivirus, firewall, ...) in all terminals. Issue secure passwords. Secure your network with the highest security standards available in the network. Protect your network against unauthorized attack from inside and outside.

Protect your property!

The Siedle App can be used from any location as a door release! Keep smartphones/tablets on which the Siedle App is activated safe from theft. Protect these devices against unauthorized usage with a code/password/fingerprint. Always use the latest protection mechanisms available for your smartphone/tablet.

User access and passwords for the Access system

Siedle Access and the server operating system are delivered with standard passwords. Issue new and secure passwords and keep these in a safe location. Forgotten passwords of the Access server and the server operating system cannot be restored and the server operating system would have to be reinstalled and commissioned.

All user access codes and passwords are within the sphere of responsibility of the installer/operator/customer.

1 Safety remarks

Warranty

Siedle excludes the guarantee for configurable functions and system properties on hardware and software supplied by Siedle if commissioning was not carried out by the Access Service Centre or our Access Certified Partners and this can be verified. Statutory rights for the delivery of defect-free goods are not affected.

All system components which are designed for/suitable for installation in an electrical distribution board or in an IT cabinet system/housing may only be installed in the permitted installation position according to the enclosed product information.

If system components are operated in improper installation positions or with improper operating parameters (e.g. excessive ambient temperature), this will render their warranty rights void in the event of service.

Legal notice

Photographs of individuals taken without their knowledge may not be published or stored in publicly accessible video memory facilities.

Individuals who have been photographed without their knowledge are entitled to request that pictures be deleted based on the right of persons to their own likeness. Never store pictures of persons you do not know in social networks or send them by email to others/public groups. This will infringe their personal rights.

If stored images are used as part of private / criminal law proceedings or in a police investigation, this requires prior clarification with a lawyer or the responsible police authority.

Systems with video cameras which are operated within the European Union and are aimed at a publicly accessible area or part of one, and film and record this, are subject to the EU General Data Protection Regulation (EU GDPR) as of May 25, 2018. It is the sole responsibility of the operator to operate such systems in accordance with data protection regulations.

2 Installation and operating conditions

The following requirements must be met in order for the Siedle Access system to operate properly:

- In the configured server operating system, install only the Siedle Access system. In addition, no other server services may be installed, as this can result in impaired performance of the Siedle Access server. (**Rule:** 1 server service per server operating system installation.)
- As server operating system use **Debian Linux 10... Buster** (installation **without** graphical user interface).
- The server hardware or virtual machine (from VMware vSphere 6) you have provided complies at least with the technically specified system requirements for the Access server.
- Only activate the services necessary for operating the Access server.
- **Optionally:** Assign the server operating system the role of the **DHCP server** and where applicable the **NTP server**, if there is no DHCP and NTP server operating in your network.
- Assign a static IP address for the server operating system.
- The network infrastructure corresponds to the prescribed specification for Siedle Access.
- All network users of the Access server are operated using this network infrastructure.

3 System description

Performance features / Functions

Siedle Access Professional is a server-based IP system for building communication. It offers the whole breadth of Siedle communication system functionality, from the speech or video connection through concierge functionality to complex switching and control functions.

Central management on the Access Server permits configuration and administration both over the web browser, encrypted VPN connection and also remotely using remote maintenance software. It also facilitates system upgrading by the extension and exchange of devices or purchasing of licences (e.g. optional application licences for the use of apps, PC software and integration of non-Siedle products such as touch control panels with installed Siedle door communication client, SIP telephones, SIP TC systems and KNX gateways).

Security concept

- No access to the IP network outdoors - door stations are connected via a controller
- No direct access from the door station to the door release contact (high level of manipulation protection)
- Use of recognized authentication mechanisms during the transfer of security-relevant information (including door release actuation, switching commands etc.)
- Encrypted communication: between the Access system and the Siedle app (Cloud-based), and the Access in-house telephone software and the Access "Concierge" software via secure protocols
- Secured access to the Access system management (configuration interface)
- Secure transport protocol (TCP over TLS) can be configured for TC gateway applications (remote station with a SIP voice channel)
- High functional security due to cyclical unit monitoring

Extension and upgrade capability

- Extension of the system possible at any point of the network at any time
- Function upgrades possible by means of updates or licences
- Central updating facility of all system components

Efficient data transmission

- Efficient video transmission (H.264 standard)
- Natural speech quality for audio transmission (G.711 audio coding)
- No relevant range restriction (up to 200 m between door station and door controller, in all other cases the standard network ranges apply)

Call station flexibility

- Wide choice of different call stations for many fields of application
- Door stations from the Vario, Classic or Steel design lines with their wide functional, mounting and design scope
- Siedle audio or video indoor stations, with receiver or handsfree, wall mounted or in a table-top version, in a range of different design variants through to special paintwork finishes or branding with the user's own logo
- Virtual in-house video telephone in the form of PC software
- Concierge software
- Siedle app (for iOS and Android – Cloud-based connection)

Server-based system

- Extensive central configuration with storage facility via web browser
- Direct access to all devices over the central server
- Optimum location networking
- Centrally available link to non-Siedle systems
- Digital video decoupling when connecting after incoming door call (e.g. for building automation panels)
- Several parallel audio and video channels
- Parallel switching and group formation without supplementary components
- Individually adjustable authorization system

- Deactivation of the video memory function (GDPR)

Integration capability

- Integration of SIP telephones with and without video
- Integration of TC (PABX) systems
- Integration of analogue surveillance cameras
- Link-up with KNX building control systems

System

- Up to 640 devices per system
- New system concept: there are only devices and groups
- New permission concept: more flexibility in system configuration (access down to the individual switching contact)
- Access Professional 5 is released to run on Debian Linux 10... (Buster)
- Support for several network cards
- Distribution of system services to different network cards configurable
- Group formation possible

Communication

- Internal calls, internal conversations
- Audio and video privacy device
- Door call and door conversation with video
- End of call on direct triggering of the door release configurable
- Direct door call with video
- Storey call (also to groups)
- Concierge function as a central interface, e.g. at the reception desk
- Echo compensation
- Active background noise suppression
- User status displayed via the contact list
- Selective dialling of the door station via additional free keys
- Call list with history
- Voicebox (ASC/ASHT)
- Individual language setting (AHT/AHTV, AHF/AHFV, AVP, ASC/ASHT)
- Call list with history (ASC/ASHT)
- Acoustic feedback after pressing a call button

- AZIO configurable (additional input and output for AHT/AHTV, AHF/AHFV, AVP)
- Support of ZAM 670 (Status display module)
- CTI call support with ASC/ASHT and external IP phone

Video

- Central video memory
- Deactivating of the video memory function (GDPR)
- Digital video decoupling of incoming door calls (e.g. for building automation panels)
- Automatic and selective recording of camera images during a door call
- Selective display and deletion of images
- Camera selection using contact list or in the video section
- Scanning mode (ASC)

Telephony

- Connection of a TC (PABX) system to the Access server (VoIP only)
- Support DTMF tones (RCF2833 / SIP-Info) for telephony connection
- Digital calling: Calls via the public telephone network
- Dialing of public numbers from the contact list or via direct dial function (ASC)
- Calling the public telephone network via a code lock
- Hold, call waiting (ASC/ASHT)
- Music on hold
- Call rerouting (manual, in the event of absence or if the line is busy)
- Call forwarding attended, unattended (ASC)

Automation

- Time profiles for the time-dependent execution of any system functions (e.g. time-controlled (automated) call forwarding or doormatic)
- Extended doormatic function (device-related, door-related)

Switching/Control

- Extended door release function (2nd door release contact can be configured depending on call destination, any switching contacts (potential-free) can be configured as door release)
- Extended KNX functionality (KNX contact as door release, status feedback)
- Switching functions configurable on call buttons
- Extended button function / status display for Siedle terminals
- Support of ATLCE
- Inverting an Output
- Re-triggering an output
- Mail Notification system

Commissioning

- Browser-based commissioning
- Browser compatibility (latest version required): Google Chrome, Microsoft Edge, Mozilla Firefox
- Central management and configuration of devices
- Group management
- Remote configuration via the web interface of the Access server
- Extended DHCP setting options
- DHCP IP address range configurable
- NTP server configurable
- Check of the system configuration (database validation function)
- 8 ring tones freely selectable

Servicing

- Remote maintenance and remote update (only in the case of customer-side set-up; Internet connection necessary!)
- Manual user monitoring
- Management of software statuses in the server (e.g. automatic updating of Siedle devices)
- Detailed logging for Siedle support

Interfaces

- Link to IP telephone systems conforming to the standard (also via telephony converters/gateways: Analog/ISDN/SBC)
- LiExternal analogue cameras (with Access Interface Analog Video Standard - AIVS 670... to ATLC...)
- KNX or other building automation systems (e.g. JUNG, Crestron or Control4)
- Link to video recording devices, operating display as and video servers via the Access video decoupler
- Access control (via Vario bus)
- Connection to the push notification service for the Siedle App

Hardware clients

- AFS/AFSV (New indoor stations)
- AHF/AHFV (Discontin. art.)
- AHT/AHTV
- AVP with KNX
- External devices (SIP)
- Android panel with pre-installed Siedle app (e.g. JUNG Smart Control...)

Client-Software (ASC/ASHT)

- Show entire application on incoming call (ASHT only)
- Automatic login and minimization at Windows startup (Minimize: ASHT only)
- Security prompt before closing the application
- Switching functions can be triggered during a call
- Status displays of switching inputs
- USB handset support (Jabra®)
- Changed scope of functions for the software clients from Access Professional 5: the functions central Doormatic Lock, individual voice announcements and sending/receiving text messages have been removed from the software clients

App

- Siedle app (for iOS and Android – Cloud-based connection)

3 System description

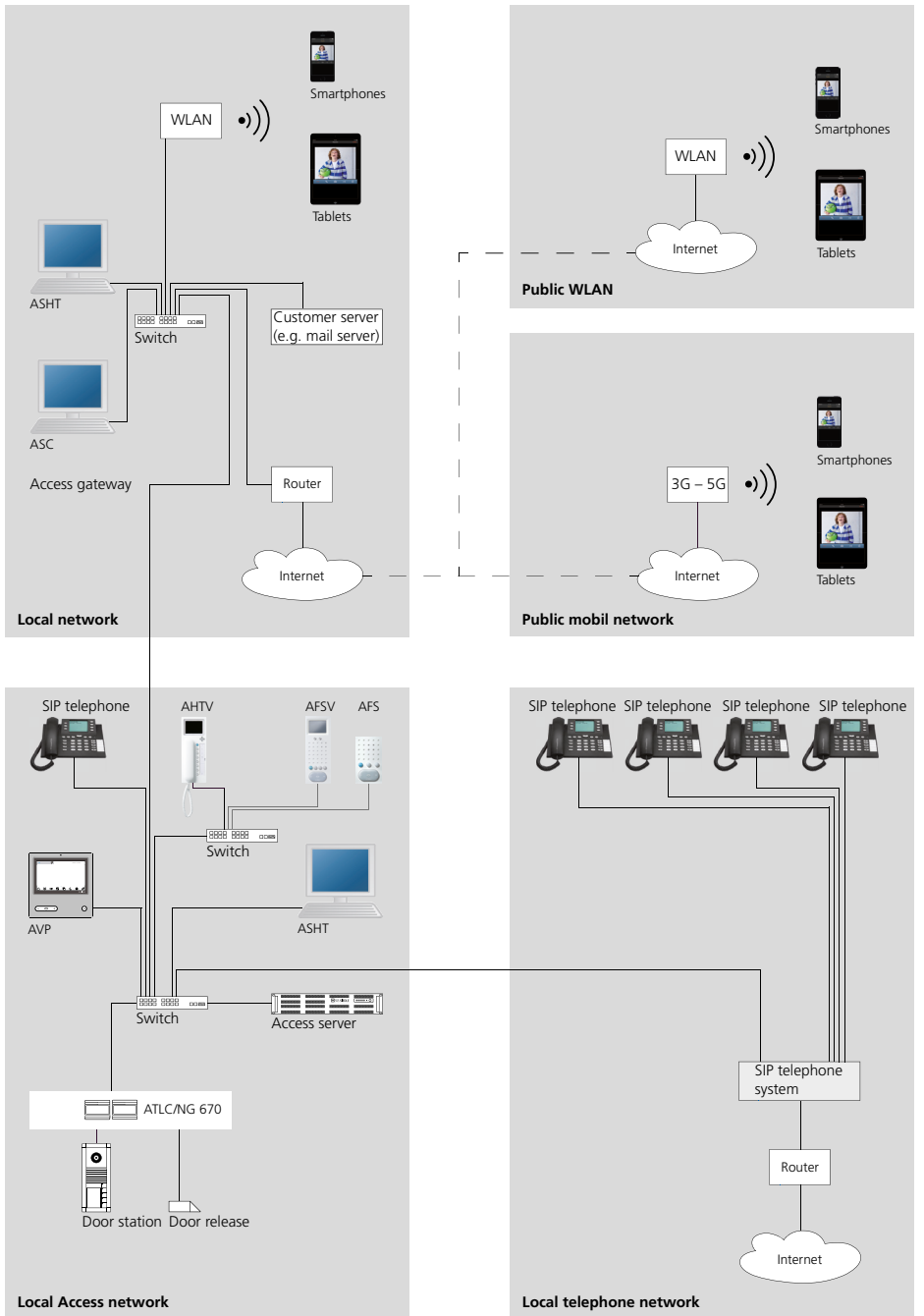
Fields of application

Fields of application

Projects with

- a large number of users (door stations and/or indoor devices) and long distances
- stringent demands on audio and video transmission
- several (also geographically) separate building sections
- concierge functions
- heterogeneous utilization (private and commercial mixed use)
- fundamental requirement for structured cabling and IP technology

System overview



3 System description

Time synchronisation in the Access system (NTP server)

For security reasons, all switching commands are signed and given a time stamp in the Access system. The time deviation between Access end devices and the Access Server must be no more than 59 seconds. Siedle hardware end devices with impermissible time deviations from the Access Server do not execute any switching commands. Note: Please only use one time server/time server pool with one address for the Access system.

Switching commands from Siedle software clients (e.g. Access Software Concierge) are also signed and time-stamped. Since the time synchronicity of mobile devices (e.g. laptop) and the Access system cannot be ensured (e.g. location in a different time zone), switching commands are executed even if there is a major time deviation.

To ensure time synchronisation in the Access system, we recommend the use of one of the following supply structures:

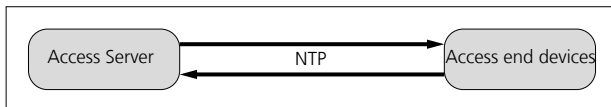
1 Time synchronisation in stand-alone operation (closed system)

In the case of stand-alone operation, only Access components without a connection to other networks/Internet/time server are located within the network.

The time set on the Access server supplies all Access end devices.

In this case, the DHCP options 4 and 42 configured in the Access server point to the IP address of the Access server which acts as time server (NTP/Time Server) for the Access end devices.

Note: When installing the Access system on the customer's own server hardware or virtualisation solution, the time server service (NTP/Time Server) in the server operating system must also be configured, otherwise a time server cannot be provided for the Access end devices.



Benefits

- Time deviation cannot arise between Access server and Access end devices.
- Stable Access system operation independent of outside world.

Drawbacks

- Access system time and the time for the outside world are not synchronised and may drift apart.
- The time must be corrected manually.

2 Time synchronisation via the Access server (recommended in networks with separate time server)

Time synchronisation for the Access end devices takes place via the Access server only. The Access server time synchronisation takes place via a time server in the local network or via the Internet. In this case, the DHCP options 4 and 42 configured in the Access server point to the IP address of the Access server which acts as time server (NTP/Time Server) for the Access end devices.

Note: When installing the Access system on the customer's own server hardware or virtualisation solution, the time server service (NTP/Time Server) in the server operating system must also be configured, otherwise a time server cannot be provided for the Access end devices.



Benefits

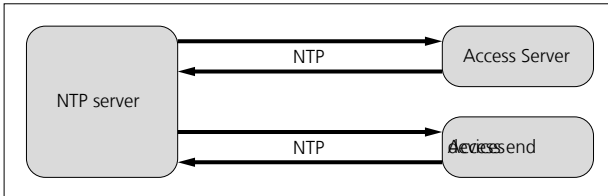
- Time deviation cannot arise between Access server and Access end devices.
- Stable Access system operation, even if the Internet or a time server is down.

Drawbacks

- If the connection to the NTP server is interrupted (e.g. Internet connection fails, modified firewall rules), the Access system time and the time of the outside world will no longer be synchronised. In the event of a longer interruption, this can result in a time deviation. However this will not have any negative effect on the Access system operation.

3 Time synchronisation via separate NTP supply

The time synchronisation of all Access components only takes place via a separate time server in the local network or via the Internet. In both cases, the DHCP options 4 and 42 configured in the Access server point to the customer's time server (NTP/Time Server).



Benefits

- The time is in sync across the entire Access network.

Drawbacks

- If the connection to the NTP server is interrupted (e.g. Internet connection fails, modified firewall rules), the Access system time between the Access server and Access end devices may differ.
- If there is a longer interruption, this may result in a time deviation.
- Registration and operation of the Siedle App (ALSA 270-0) on the Access system is only possible if there is no time deviation.
- If the time deviation is more than 59 seconds, no more switching commands are executed for safety reasons.

Note on time synchronisation in virtualisation solutions:

Please note the relevant manufacturer recommendations for your virtualisation solution.

VM-Ware:

https://kb.vmware.com/selfservice/microsites/search.do?language=en_US&cmd=displayKC&externalId=1318

Microsoft:

https://blogs.msdn.microsoft.com/virtual_pc_guy/2010/11/19/time-synchronization-in-hyper-v/

3 System description

Push Notification Service (Siedle App)

From the Access system version 5.1 onwards, the "Siedle App" (black logo) can be used on mobile devices with the iOS or Android operating system. Incoming calls are signalled from the Siedle Server to the app by means of push notification via the respective app platform (Apple Push Notification Service (APNS) or Google Cloud Messaging (GCM)).

- An internet connection for the Siedle App and the Access system is required for commissioning.

- The mobile end device must be connected to the internet for push notifications to be received. For this, the DNS server and the standard gateway must be configured in the LAN/WLAN and the Access Server and Siedle App must be known.

Other operating methods (e.g. local stand-alone operation without internet connection) are no longer supported.

- Provided there is an internet connection and the Siedle App is registered on the Access system, App users are always informed of incoming calls (Always On), regardless of the operating state of the Siedle App. Due to the iOS operating system, an app that is active in the foreground will respond the quickest.

System conditions

The following requirements apply when using the Siedle App:

- Access Professional Version 5.1 or higher
- Siedle App (black logo)
- Mobile device with installed operating system from iOS 13 or Android 7 or higher
- Permanent Internet connection for the Access system
- Permanent Internet connection for the mobile device
- Receipt of push notifications must not be blocked on the mobile device
- Non-blocked port 443 (HTTPS) for the Access system (in addition to the ports required for operation of the Access system)

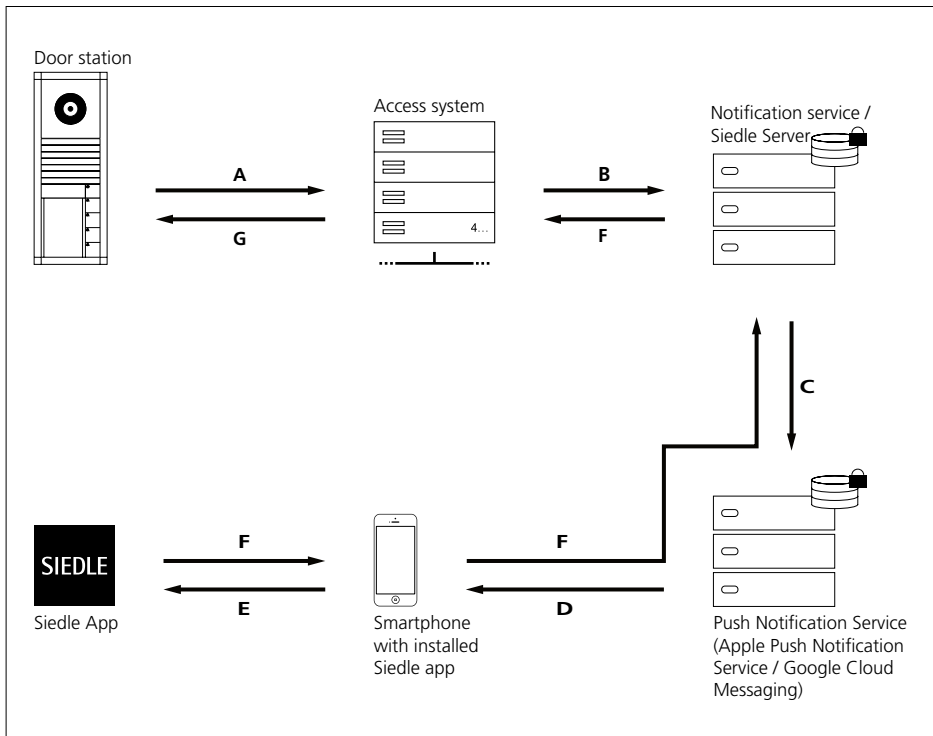
Important!

Registration and operation of the Siedle App (ALSA 270-0) on the Access system is only possible if there is no time deviation.

Properties of the entire system

- Communication is encrypted.
- Access systems only connect to the Siedle Server. There is no direct connection to a third-party provider or Push service.
- Mobile end devices with a registered Siedle app are always connected to the Push service and are ready-to-receive when there is an Internet connection.
- The Siedle notification service (Siedle Server) only forwards notifications on incoming calls (door calls or internal calls) to the Siedle App.

Note: Technical details and requirements for receiving Push Notification on mobile devices may change over time. Please contact the support of the respective app platform if required.



Standard operation

The call button is pressed at the door station. The call destination is a mobile device with Internet connection and installed Siedle App.

Sequence

- A** A call is initiated at the door station. The call destination is a mobile device with the Siedle App.
- B** The Access system sends a notification about the incoming door call to the Siedle notification Service (Siedle Server) in the Internet.
- C** The Siedle notification service forwards the notification to the Push Notification Service (Apple Push Notification Service (APNS) or Google Cloud Messaging (GCM)).
- D** The Service sends the notification to the mobile end device via the existing internet connection.
- E** The mobile device signals the notification about the incoming door call to the Siedle App.

- F** The user can open the Siedle App via the displayed push notification in order to accept the pending call. The Siedle App connects to the Access system via the mobile device.
- G** The Access system establishes the connection to the door station and opens the communication channels to the Siedle App. The door call can take place.

3 System description

Connection to telephone systems

In order to connect telephone systems (TC system) to the Access system, the following system requirements must be met (from Access system version V. 2.1.x):

- VoIP standard: SIP protocol
- Audio codec: G.711 a-law or μ -law
- Length of the audio packets (framing size): 40 ms (can be changed to 20 ms)
- Protocol for DTMF tones: RFC 2833 or SIP info

A TC system can be connected to the Access system via SIP trunk or PABX gateway. TC systems without VoIP-capable network interface can be connected via analogue, ISDN or SBC gateway.

Depending on the TC system, it may need to be extended in order to connect to the Access system:

- Hardware: (e.g. retrofitting VoIP assemblies/PCBs)
- Software/software licences: (e.g. system update and additional licences from the TC manufacturer)

These extensions are not part of the scope of supply of the Access system and must not be confused with the user and application licenses which are needed for the operation of the Access system.

Information about PABX gateway (single channel connection)

Connecting the Access system to the TC system as a PBX extension:

- One connection channel per configured PABX gateway connection in the Access system (max. 50 connection channels can be configured per Access system, including via the same prefix), one ALT 270-0 telephony connection Access licence is required per connection channel.
- A PBX extension/user for connection of the Access system is also created in the TC system. This connection may vary depending on the TC system.
- For each call from the access system, the call number / name is always displayed which is configured in the PABX for the SIP user used in the PABX. Call differentiation is possible in the TC system.
- A TC gateway is set up for each door station!

As of Access system V. 5.1.0, the protocol and port can be configured individually for negotiating the SIP communication parameters of the TC connection:

- Protocol: UDP, TCP or TLS
- Port: 1–65535

Important!

The selected protocol and port must also be configured in the remote party. Please note the respective standard ports of the protocols:

- UDP/TCP: 5060 – Session Initiation Protocol (SIP)
- TLS: 5061 – Session Initiation Protocol (SIP) over TLS

Notes on the SIP trunk (bundle channel connection)

Network-side connection of the Access system to a TC system via SIP trunk:

- Up to 50 connection channels in the Access system (without authentication), one ALT 270-0 telephony connection Access licence is required per connection channel.
- A uniform call number plan is recommended (each assigned call number in the common Access and TC system group is unique).
- A gateway for connection to the Access system is also created in the TC system. This connection may vary depending on the TC system.
- Each call from the Access system to the TC system is shown with the relevant Access user call number (call differentiation is possible).

As of Access system V. 5.0.0, both the call number and the device name is transmitted to the TC system. Many TC systems include display of transmitted user names as a configurable performance feature, which must be activated and configured in the TC system if necessary.

4 System structure, conductor material and range

General planning information

The basis for planning an Access system is an IP network configured in accordance with specifications for creating structured cabling (as described under Network cabling). The purpose of the Access security concept is to ensure that network cabling terminates not outside the door but with the ATLC/NG 670-... Consequently, the door connection (as described under cabling in the door area) is not a constituent part of the IP network.

For positioning of the Access devices and network components, it is advisable to provide a construction plan. This should take into consideration the length restrictions of the connection types such as copper and optical fibres.

The space requirement of network components and Siedle devices must be determined and taken into consideration. Siedle recommends drawing up a schematic drawing of the network structure and the used Siedle devices.

Logical and self-explanatory names should be assigned to the various devices, for example FL1AP5 for 1st floor, apartment 5. All cable segments between active components should be listed in an index showing their name, cable length and cable type.

In order to permit correctly controlled server shutdown, we recommend including a UPS (uninterruptible power supply) unit in the planning.

Planning areas

Generally speaking, a distinction is drawn between the door area and the protected local area network (LAN).

Door area

The installation for the door station is referred to as the door area. If correctly installed, this area is protected from unauthorized access. From the outside, it is not possible to access the network.

Cabling in the door area

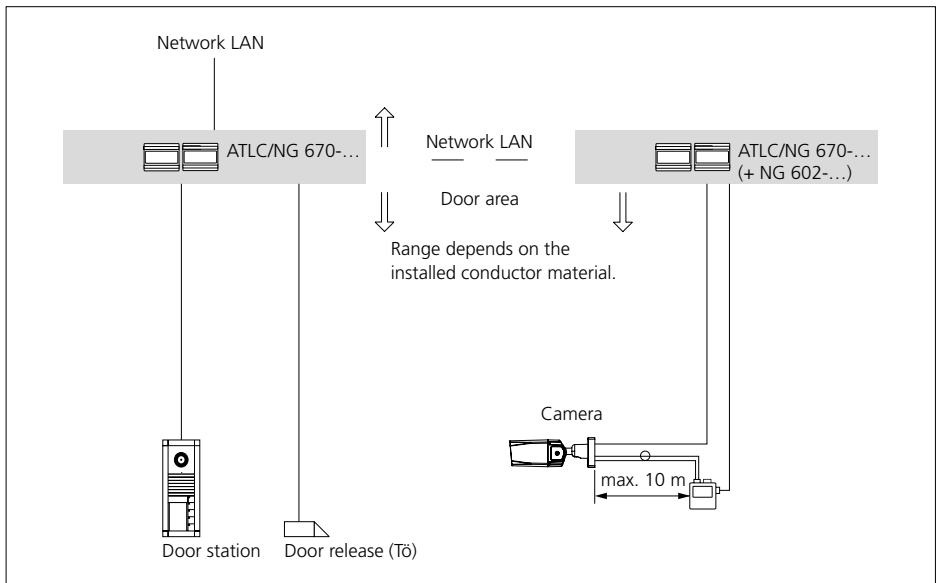
The IP network terminates with the ATLC/NG 670-... To protect against unauthorized access, the ATLC/NG 670-... must be accommodated without fail inside the building.

The cabling from the ATLC/NG 670-... to the door station is executed in the conventional way.

Every door station/independent camera is installed in the system with its own ATLC/NG 670-... The cabling between the door release and ATLC/NG 670-... should be tamper-proof with a separate line (direct laying).

If an external camera is used, the maximum distance between AIVS 670-... and the camera is 10 m. The AIVS 670-... requires a video input signal of 1 V_{pp}.

The following conductor materials with suitable maximum ranges have been officially approved for wiring between ATLC/NG 670-... and the door station:



4 System structure, conductor material and range

Permitted conductor material / Ranges

Type	Cable	Diameter	Maximum range
Telecommunications installation cable (Pair-twisted)	J-Y(St)Y...	dia. 0.8 mm	200 m
	J-Y(St)Y...	dia. 0.6 mm	100 m
Telecommunications outdoor cable (Quad-twisted)	A-2Y(L)2Y...	dia. 0.8 mm	200 m
	A-2Y(L)2Y...	dia. 0.6 mm	100 m
Network cable (Pair-twisted)	Cat. 5 AWG22...	dia. 0.644 mm	120 m
	Cat. 5 AWG23...	dia. 0.573 mm	90 m
	Cat. 5 AWG24...	dia. 0.511 mm	80 m
	Cat. 5 AWG26...	dia. 0.405 mm	50 m

Switching inputs / Ranges

Device types	Models	Input contacts	Maximum range
Door controller	ATLC 670-...	E1 *	200 m
Door controller extension	ATLCE 670-...	E1, E2 *	200 m
Indoor devices	AFS/AFSV/AHT/AHTV/AVP 870-... AHF/AHFV 870-...	E1	50 m
Indoor device extension	AZIO 870-...	E2	50 m

* Input contacts in the “electrically isolated” operating mode require the following supply: 5 30 V DC, 10 mA

Connection method

Depending on the cable type, **pair-twisted** or **quad-twisted**, we recommend the following connection methods for the cabling between the door station and ATLC/NG 670-0:

Terminals	Type – Pair-twisted			Type – Quad-twisted		
	Core	Twin core	Location	Core	Twin core	Bundle
S1	a	1	1	a	1	1
S2	b			b		
S3	a	2	1	a	2	
S4	b			b		
D1	a	3	1	a	3	2
D2	b			b		
V1	a	4	1	a	4	
V2	b			b		

Supply limits ATLC/NG 670-...

Supply limits ATLC/NG 670-... / Access door loudspeaker module ATLM 670-...

Siedle Vario	Video door stations			Audio door stations		
	Standard	with COM 611-...	with DRM 612-...	Standard	with COM 611-...	with DRM 612-...
ACM 67x-...	1	1	1	-	-	-
ATLM 670-...	1	1	1	1	1	1
COM 611-...	-	1	-	-	1	-
DRM 612-...	-	-	1	-	-	1
BTM 650-...	10	1	1	26	12	12

Siedle Classic/Steel

ACM 67x-...	1	1	1	-	-	-
CATLE/SATLM 670-...	1	1	1	1	1	1
COM 611-...	-	1	-	-	1	-
DRM 612-...	-	-	1	-	-	1
Call buttons	20	1	1	60	30	30

Supply limits ATLC/NG 670-... / Access door loudspeaker module Plus ATLM 671-...

Siedle Vario	Video door stations			Audio door stations		
	Standard	with COM 611-...*	with DRM 612-...*	Standard	with COM 611-...	with DRM 612-...*
ACM 67x-...	1	-	-	-	-	-
ATLM 671-...	1	-	-	1	1	-
COM 611-...	-	-	-	-	1	-
DRM 612-...	-	-	-	-	-	-
BTM 650-...	1	-	-	6	1	-

Siedle Classic/Steel

ACM 67x-...	1	-	-	-	-	-
CATLE/SATLM 671-...	1	-	-	1	1	-
COM 611-...	-	-	-	-	1	-
DRM 612-...	-	-	-	-	-	-
Call buttons	2	-	-	10	2	-

* Operation via the door station's internal power supply is not possible. A separate power supply is required.

4 System structure, conductor material and range

Supply limits ATLC/NG 670-...

Supply limits ATLC/NG 670-... /

Access door loudspeaker module ATLM 670-... + Status display module ZAM 670-...

Siedle Vario	Video door stations			Audio door stations		
	Standard	with COM 611-...	with DRM 612-...	Standard	with COM 611-...	with DRM 612-...
ACM 67x-...	1	1	1	-	-	-
ATLM 670-...	1	1	1	1	1	1
COM 611-...	-	1	-	-	1	-
DRM 612-...	-	-	1	-	-	1
ZAM 670-...	1	- *	- *	1	1	1
BTM 650-...	2	-	-	18	4	4

Siedle Classic/Steel

ACM 67x-...	1	1	1	-	-	-
CATLE/SATLM 670-...	1	1	1	1	1	1
COM 611-...	-	1	-	-	1	-
DRM 612-...	-	-	1	-	-	1
ZAM 670-...	1	- *	- *	1	1	1
Call buttons	5	1	1	45	15	15

Supply limits ATLC/NG 670-... /

Access door loudspeaker module Plus ATLM 671-... + Status display module ZAM 670-...

Siedle Vario	Video door stations			Audio door stations		
	Standard	with COM 611-...*	with DRM 612-...*	Standard	with COM 611-...	with DRM 612-...*
ACM 67x-...	1	-	-	-	-	-
ATLM 671-...	1	-	-	1	1	-
COM 611-...	-	-	-	-	1	-
DRM 612-...	-	-	-	-	-	-
ZAM 670-...	- *	- *	- *	1	- *	- *
BTM 650-...	1	-	-	2	-	-

Siedle Classic/Steel

ACM 67x-...	1	-	-	-	-	-
CATLE/SATLM 671-...	1	-	-	1	1	-
COM 611-...	-	-	-	-	1	-
DRM 612-...	-	-	-	-	-	-
ZAM 670-...	- *	- *	- *	1	- *	- *
Call buttons	2	-	-	4	2	-

* Operation via the door station's internal power supply is not possible. A separate power supply is required.

Supply units – digital call

Input unit	Supply unit	For detailed information, see page
COM 611-...	TR 603-...*	
DRM 612-...	TR 603-...*	38, 50
COM 611-... + DRM 612-...	TR 603-...	
Siedle Touch...	ANG 600-... + TR 603-...	33, 49, 50

* Is only required if the door station's supply limit (ATLC/NG 670-0 Access door loudspeaker controller with line rectifier) no longer suffices. For detailed information, see page 19

PoE – Power over Ethernet

The supply for the indoor stations must be ensured by the customer via PoE. Routers/switches used must be PoE-capable according to IEEE802.3af, as a minimum. To prevent supply problems, we recommend the use of PoE switches which can supply each PoE port according to standard "IEEE 802.3af" with up to PoE class 3.

Depending on the network infrastructure, the decentral PoE supply of individual devices can take place with PoE injectors, and the central PoE supply of several devices can take place with PoE-capable routers/switches.

PoE budget

Model	Designation	PoE class	Required operating voltage *	Required power on switch port (Watt)	Recommended transfer speed in network
AFS 870-...	Access standard handsfree telephone	2	PoE according to IEEE 802.3af	7,0	100 Mbit/s
AFSV 870-...	Access standard video handsfree telephone	2	PoE according to IEEE 802.3af	7,0	100 Mbit/s
AGW 67x-...	Access gateway	–	–	–	100 Mbit/s
AHF 870-...	Access handsfree telephone	2	PoE according to IEEE 802.3af	7,0	100 Mbit/s
AHFV 870-...	Access video handsfree telephone	2	PoE according to IEEE 802.3af	7,0	100 Mbit/s
AHT 870-...	Access in-house telephone	2	PoE according to IEEE 802.3af	7,0	100 Mbit/s
AHTV 870-...	Access video in-house telephone	2	PoE according to IEEE 802.3af	7,0	100 Mbit/s
ASH 670-...	Access server hardware	–	–	–	1000 Mbit/s
ATLC/NG 670-...	Access door loudspeaker controller with line rectifier	–	–	–	100 Mbit/s
AVP 870-...	Access video panel	3	PoE according to IEEE 802.3af	15,4	100 Mbit/s

* Power supply devices (PoE switches) of newer PoE standards (IEEE 802.3at, IEEE 802.3bt) are usually downward compatible with IEEE 802.3af.

4 System structure, conductor material and range

Network LAN

The requirement for integration of an Access system is a network infrastructure created in accordance with the stipulations for generic cabling (from Category 5e).

Rules for generic cabling are set out in various standards:

- EN 50173-1 General requirements
- For individual building types, the following standards apply in addition:
- EN 50173-2 (ISO/IEC 11801) for office buildings
 - EN 50173-3 (ISO/IEC 24702) for industrially used locations
 - EN 50173-4 (ISO/IEC 15018) for apartments

Internationally, the ISO/IEC standards apply.

Cabling structure/areas

The cabling is broken down into 3 areas.

Primary area

- Fibre optic cables
- Cabling between individual buildings and/or within buildings between several main building distributors.
- In the case of copper wire connections, adequate equipotential bonding must be guaranteed.

Secondary area

- Fibre optic cables
- The storeys are networked by means of storey distributors. Both fibre optic and copper connections can be used. This is dependent upon the switches used and their distance from the main distributor/switch.

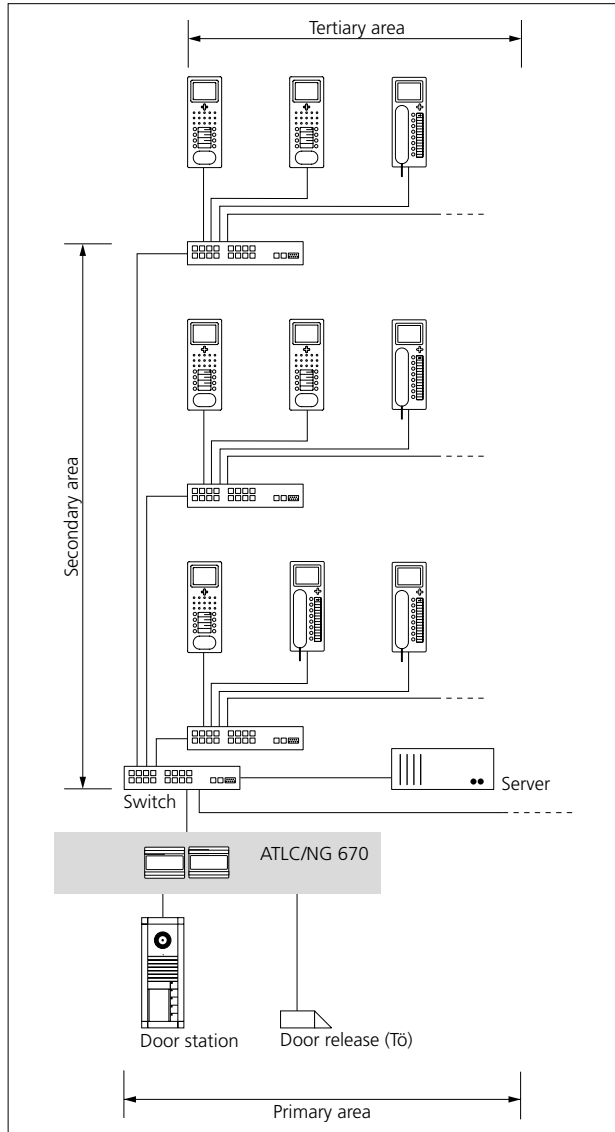
Tertiary area

- Twisted pair for fixed installation plus patch cable for cabling from the network junction box to the terminal.

Network characteristics

Access system

- Maximum of 150 ms delay in one direction (one way delay)
- Maximum of 300 ms total delay
- Packet loss < 1%
- Maximum of 20 ms jitter



Cabling for indoor devices

All indoor devices are always connected via an RJ45 8/8 (or RJ45 socket modules 8(8)) network socket. This is divided into two sockets (AHT/AHTV..., AVP..., AHF/AHFV...).

The left-hand socket is reserved for the network (LAN area). The right-hand socket is independent of the network and is used for connecting other control elements permitting additional uses (AHT/AHTV..., AVP..., AHF/AHFV...).

Supplementary functions such as a storey call button are also connected via the RJ45 network socket (right-hand socket/side) or the RJ45 socket modules 8(8).

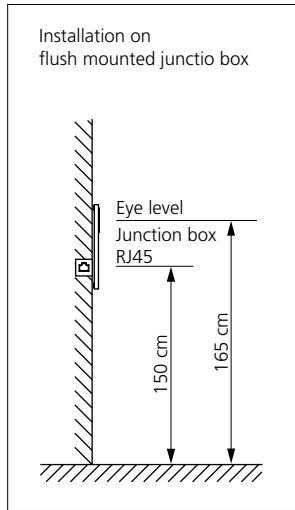
The range between ERT and the indoor device is max. 50 m (Cat 5 AWG22).

The Access indoor devices can be installed without problems using standard RJ45 flush mounting network junction boxes.

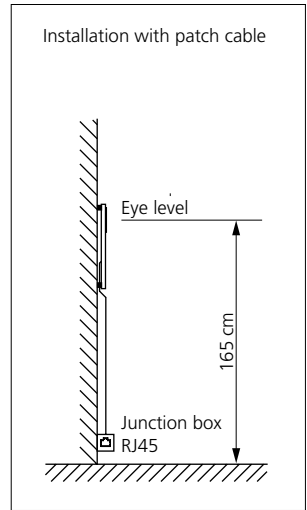
In this case, simply install the network junction box without the frame and panel. The Siedle indoor device can be mounted above the junction box and connected to the network with a plug-in connector.

If there is no flush mounted network socket at the required mounting height due to circumstances on site, the indoor call station can be surface mounted with the AZA 870-... (AHT/AHTV..., AVP..., AHF/AHFV...). In this case, the connection from the indoor call station to the network is established using a patch cable (not provided).

If the indoor call station is intended for use as a table-top unit, the device can be converted using the AZTV 870-... with 3 metre long connecting cable (AHT/AHTV..., AVP..., AHF/AHFV...).



Ideally, an RJ45 flush mounted junction box should be positioned at the mounting height for the indoor device (display height less 15 cm) (AFS/AFSV..., AHT/AHTV..., AVP..., AHF/AHFV...).



Mounting with Access surface mounting accessory AZA 870-... and patch cable provided on site (AHT/AHTV..., AVP..., AHF/AHFV...).

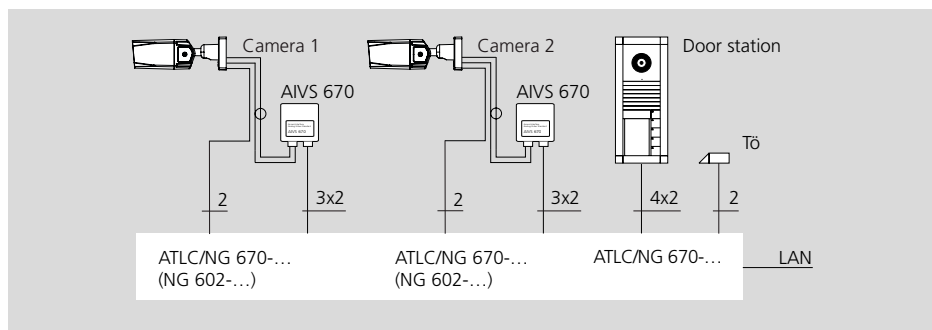
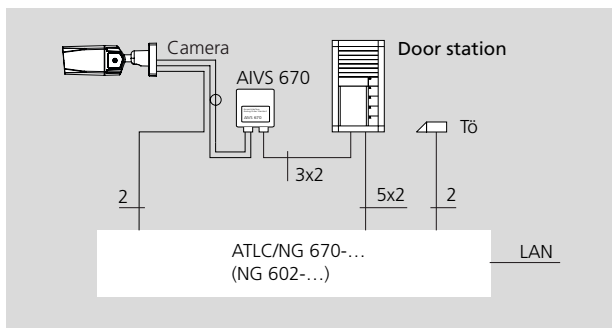
4 System structure, conductor material and range

Cameras

External cameras

Audio door station with external analogue camera: For the external camera, an AIVS 670-... and, if necessary (e.g. CE 950-...) a matching separate power supply (e.g. NG 602-...) is required.

Separately operated external analogue camera: One AIVS 670-... and one ATLC/NG 670-... are required for each external analogue camera. The camera is connected to the ATLC via the AIVS.



Supply limits ATLC/NG 670-...	Access door loudspeaker module ATLM 670-...			Access door loudspeaker module Plus ATLM 671-...		
	Standard	with COM 611-...	with DRM 612-...	Standard	with COM 611-...*	with DRM 612-...*
Siedle Vario						
ATLM 670-...	1	1	1	1	-	-
COM 611-...	-	1	-	-	-	-
DRM 612-...	-	-	1	-	-	-
BTM 650-...	10	1	1	1	-	-
CE 600-... + AIVS...	1	1	1	1	-	-
Siedle Classic/Steel						
CATLE/SATLM 670-...	1	1	1	1	-	-
COM 611-...	-	1	-	-	-	-
DRM 612-...	-	-	1	-	-	-
Call buttons	20	1	1	2	-	-
CE 600-... + AIVS...	1	1	1	1	-	-

* Operation via the door station's internal power supply is not possible. A separate power supply is required.

Pick-up range of the camera

General

Video cameras operating with the Vario door loudspeaker or externally in the background provide an unobtrusive method of surveillance in the entrance area. Call, speech and door release operation of the door station. The visitor appears on screen at one or more of the video call stations.

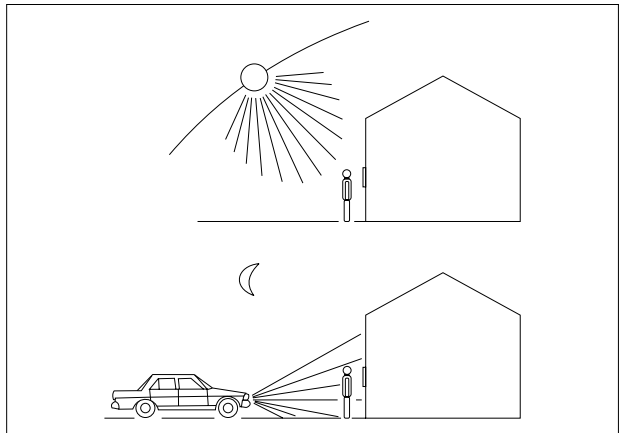
Possible applications include single and multiple family homes, private/commercial premises, practices and surgeries, administrative buildings etc.

Other video components for special applications can be combined with our devices on request.

Location of the video camera

Selection of the most suitable camera and its location is decisive to ensure good picture quality. The camera must not be directed towards:

- direct backlight
- direct sunlight
- very bright image backgrounds
- highly reflective walls opposite the camera
- lamps or direct light sources



If the range of a camera module is not sufficient, external cameras such as the CE 600-... or CE 950-... can be used.

4 System structure, conductor material and range

Pick-up range of the camera

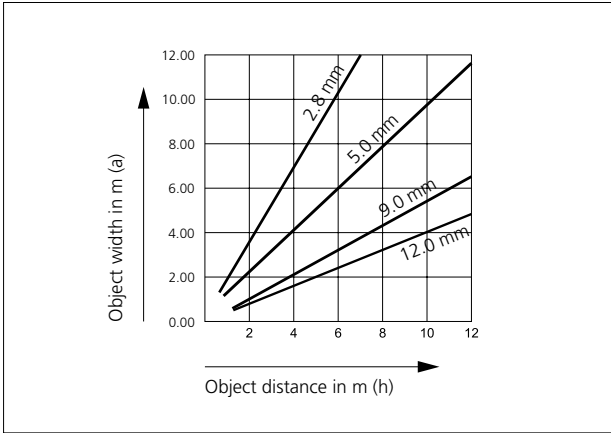


Diagram showing the pick-up range of external camera CE 600-... with image pick-up chip 1/3".

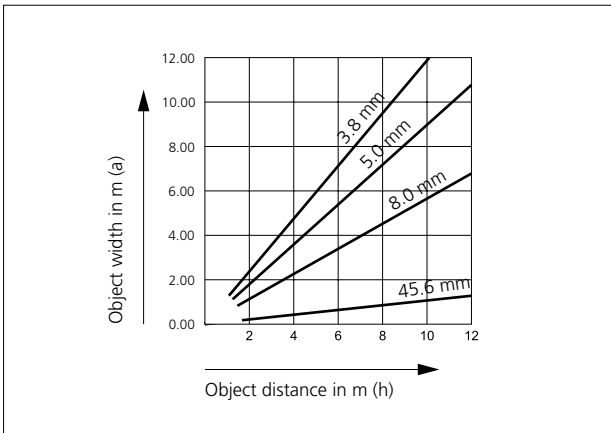


Diagram showing the pick-up range of external camera CE 950-... with image pick-up chip 1/4".

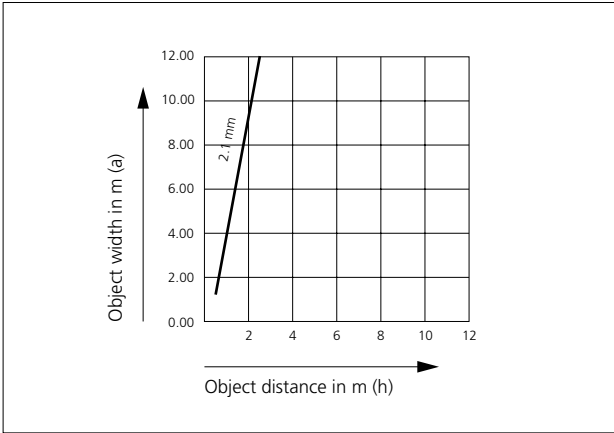
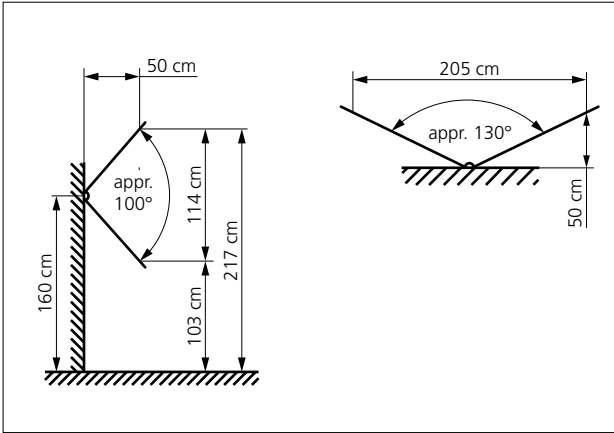


Diagram pickup range
 Camera ACM 673-... with image
 pick-up chip 1/3".



Pick-up angle of the camera module
 ACM 673-...
 The ACM 673-... camera transmits
 the entire recorded video image.

4 System structure, conductor material and range

Pick-up range of the camera

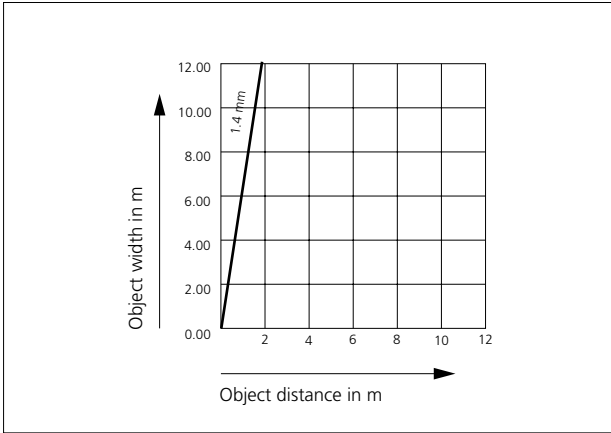
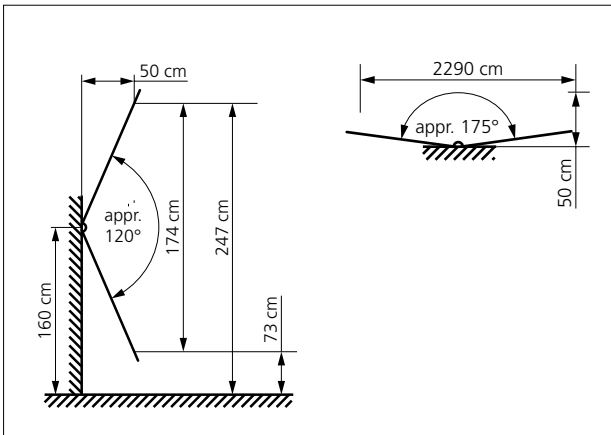
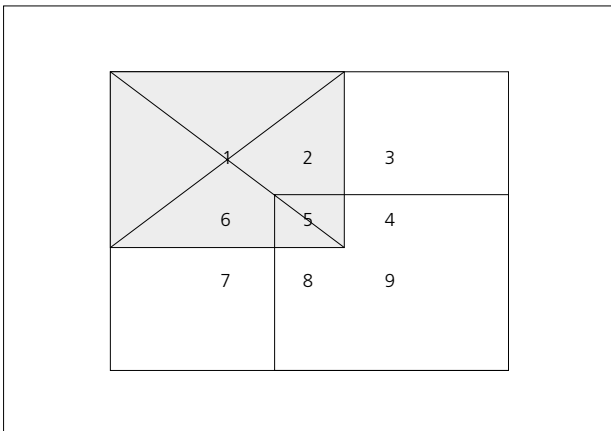


Diagram pickup range
Camera ACM 678-... with image
pick-up chip 1/3".

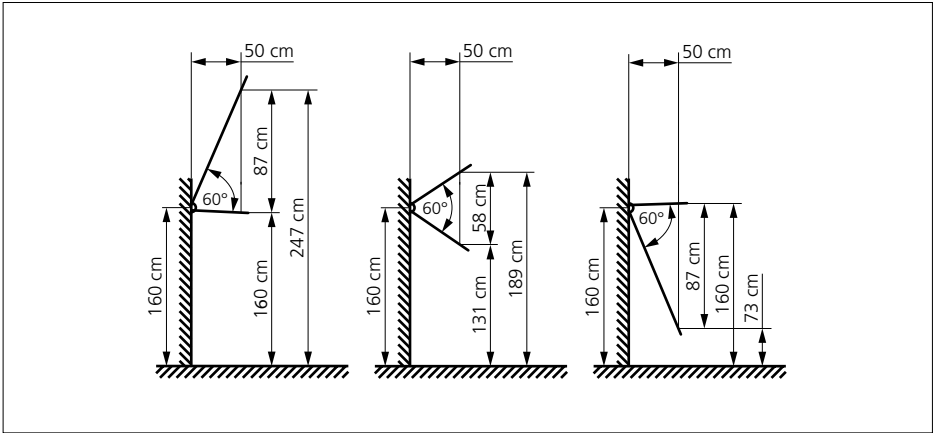


Pick-up angle of the camera module
ACM 678-... in full screen mode.



The pick-up angle of camera module
ACM 678-... can be adjusted
depending on the mounting situ-
ation.

Required picture excerpt from the
camera view (1 to 9) or full screen
(0).



Select the picture excerpt based on the existing mounting situation. The camera's pick-up angle is thus reduced.

- Picture excerpt (1–3) top camera alignment
- Picture excerpt (4–6) central camera alignment
- Picture excerpt (7–9) bottom camera alignment

5 System components

Overview

Door stations (outdoor/indoor area)

(Possible designs:
Vario/Classic/Steel)

- ACM 670-...
Access camera 80 for Siedle Vario
- ACM 673-...
Access camera 130 for Siedle Vario
- ACM 678-...
Access camera 180 for Siedle Vario
- ATLE 670-... *
Access custom-fit door loudspeaker incl. Bus call button matrix
- ATLM 670-...
Access door loudspeaker module
- ATLM 671-...
Access door loudspeaker module Plus
- BRMA 050-... *
Bus call button matrix
- BTM 650-01 to -04
Bus call button module
- COM 611-...
Code lock module
- DRM 612-...
Display call module
- PME...
Mail notification system (Classic/Steel)
- ST 10-...
Siedle Touch 10 (Steel)
- STE 10-...
Siedle Touch 10 built-in
- TÖ 61x-...
Door release (DIN left or right)
- ZAM 670-...
Status display module
- ZDS 601-...
Anti-pilfer accessory (Siedle Vario)

External cameras/ Surface-mounted components

- AIVS 670-...
Access Interface analog-video standard
- CE 600-...
External colour CCD video camera for external mounting
- CE 950-...
External colour CCD video camera for external mounting

Indoor stations (audio/video)

- AFS 870-...
Access standard handsfree telephone
- AFSV 870-...
Access standard video handsfree telephone
- AHT 870-...
Access in-house telephone
- AHTV 870-...
Access video in-house telephone
- AVP 870-...
Access video panel
- AHF 870-... (Discontin. art.)
Access handsfree telephone
- AHFV 870-... (Discontin. art.)
Access video handsfree telephone

Upgrade (audio indoor station)

- AUV 870-...
Access for video upgrade

Accessory

- AZA 870-...
Access surface-mount accessory
- AZIO 870-...
Access input/output accessory
- AZTV 870-... / AZTVP 870-...
Access table-top accessory
- ZRE 600-...
19 inch rack mounting accessory

Distribution components

- ANG 600-...
Access line rectifier
- ATLC/NG 670-...
Access door loudspeaker controller with line rectifier
- ATLCE 670-...
Access door loudspeaker controller extension
- AVA 670-...
Access video decoupler
- DSC 602-...
Anti-pilfer controller (Siedle Vario)
- NG 602-...
Line rectifier
- NG 706-30/33-...
Line rectifier
- TR 602-...
Transformer
- TR 603-...
Transformer
- VNG 602-... (Discontin. art.)
Video line rectifier
- ZDS/CL (SDSC 602-...)
Anti-pilfer controller + Anti-pilfer accessory (Siedle Classic)
- ZWA 640-...
Western socket accessory

* Can also be used for customer's existing door stations/letterbox systems.

Access server variants
Software variant

- Access Professional V 6...

Hardware variant

- ASH 671-... M
Access server hardware M
- ASH 671-... S
Access server hardware S

Network security – active components for physical network separation

- AGW 671-...
Access gateway

Upgrade (server)

- ALU 670-...
Access licence upgrade
- AIS 670-...
Access installation stick

Client-Software

- ASC 170-...
Access Software Concierge
- ASHT 170-...
Access Software In-house telephone
- Siedle App
(App for smartphones/tablets with Android/iOS)

Access user licences (Server operation)

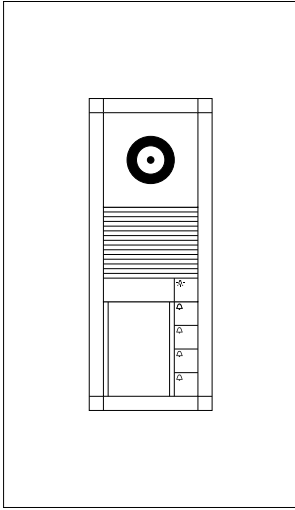
- APR 670-0 B Access Professional basic licence
- APR 670-0 10 Access Professional

Optional Access application licences (Models)

- ALFA 270-...
Access licence for connecting a non-Siedle device
- ALFP 270-...
Access licence for non-Siedle panel device (for operating a JUNG Smart Control ... with Android 6.0.1)
- ALKNX 270-...
Access licence for KNX gateway
- ALSA 270-...
Access licence for Siedle App
- ALT 270-...
Access licence for telephony connection
- ASC 170-...
Access Software Concierge
- ASHT 170-...
Access Software In-house telephone

5 System components

Door stations (outdoor/indoor area)

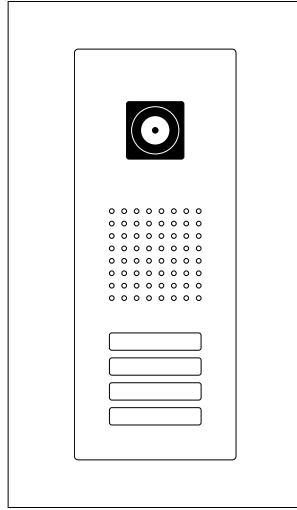


Siedle Vario

From the door bell to the switching and control centre, modern building communication has a lot to offer. Visitor information and guidance, receiving mail, lighting, security, access control and image projection: The requirements are many and varied. Siedle's solution is a simple one: The modular principle.

Siedle Vario is unmatched in its flexibility. As an open-ended, modular system, it fits in with the building owner's requirements, the design specifications of the architect as well as building constraints. The Vario system design ensures that any combination of functional modules complies with the most stringent standards of both form and function.

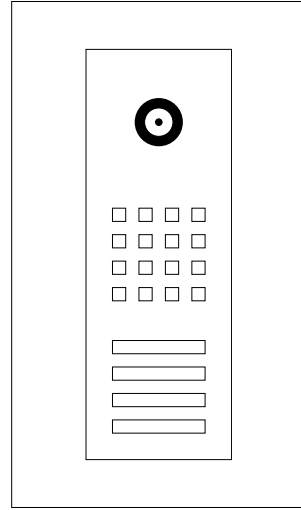
Top-quality materials such as aluminium or weather and UV-resistant polycarbonate guarantee reliable performance over a long service life. The same high standards apply to the planning and processing stage. Thanks to pre-installation, mounting aids and installation compartments, Siedle Vario is quickly and economically planned and installed.



Siedle Classic

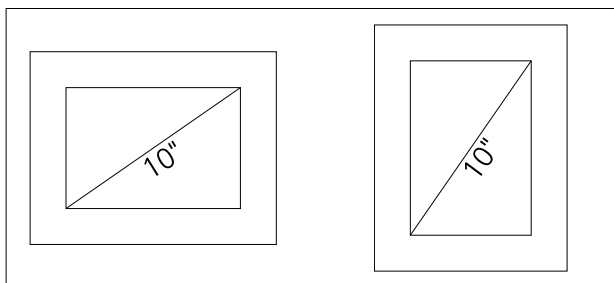
A metal range with a system: The Classic product line is a variable system with a broad range of functions and a wide variety of applications. Siedle Classic provides everything you need at the front door. Alongside the intercom system with bell, the access controls, letterboxes and movement sensor module supplement the audio and video communication functions.

Siedle Classic is available in various standard systems. These are designed to cover the majority of door communication requirements. We are able to supply bespoke solutions on request to address special requirements in terms of design and functionality.



Siedle Steel

Door stations from the Siedle Steel range are individually produced and supplied as a fully functional complete unit. So when planning a new installation, all you need to decide is which type of installation system you require. We take charge of collating all the necessary components and equipping the door station.



ST 10-0 – Siedle Touch 10

Siedle Touch 10: 25.7 cm (10.1") control panel for door communication and access control in conjunction with the Siedle Vario bus.

For making door calls via digital call buttons or call numbers as well as for setting codes for control functions / access control.

Siedle Touch in the Steel design line: Steel systems are individually planned and produced, assembled in the factory, tested and supplied ready to install.

Siedle Touch can be fitted in both portrait format as well as landscape format.

Performance features:

- Language-independent user interface, intuitive to use
- Customisable display in idle status (e.g. illuminated building number)
- Information field, personalizable and supported by images if required (e.g. company logos, opening times, site plans)
- Display of status information (call, speech, door open)
- Integrated code lock, optionally with random number arrangement
- Calling via numeric keypad
- Siedle Touch built-in can be fitted in both portrait format as well as landscape format
- Visible image area (H x D): approx. 136 x 218 mm with horizontal installation
- It can be used in the In-Home bus or Access Professional system.

For entering control functions (such as open door with code), the Entrance controller EC 602-... or the Door controller IP TCIP 603-... is required.

Screen diagonal: 257 mm / 10.1"

Resolution: 1280 x 800 pixels

Installation type: Horizontal or vertical

Operating voltage: 48 V DC

Operating current: max. 500 mA

Current consumption in idle status: 350 mA

Protection system: IP 65 from the front

Ambient temperature:

-20 °C to +55 °C

Remarks

When mounting, consider the lighting conditions, as these can affect the legibility of the panel.

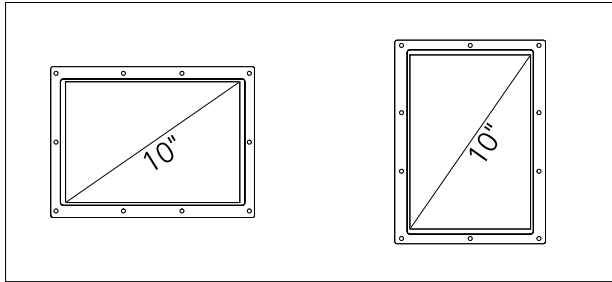
- Direct backlight
- Direct sunlight
- Reflective surfaces
- Direct light sources such as spotlights

Avoid direct sunlight / prolonged exposure to heat: If devices are exposed to sunlight for a prolonged period of time, the device's surface temperature or the temperature inside the device may exceed the maximum permitted ambient temperature for operation. Observe the permissible temperature range.

Recommended mounting height approx. 1.60 m to display height/viewing height (depending on the local/on-site requirements/conditions).

5 System components

Door stations (outdoor/indoor area)



STE 10-0 –

Siedle Touch 10 built-in

Siedle Touch 10 built-in for integration in a façade. Control panel (25.7 cm/10.1") for door communication and access control in conjunction with the Siedle Vario bus.

Siedle Touch 10 for building integration: Alternatively, Siedle Touch can be integrated in façades, door panels or walls along with Siedle cameras and custom-fit door loudspeakers. In this way, the camera can capture an optimum image of the entrance area at all times.

Siedle Touch can be fitted in both portrait format as well as landscape format.

Wall cut-out (H x D): 165 x 238 mm for horizontal integration

Performance features:

- Language-independent user interface, intuitive to use
- Customisable display in idle status (e.g. illuminated building number)
- Information field, personalizable and supported by images if required (e.g. company logos, opening times, site plans)
- Display of status information (call, speech, door open)
- Integrated code lock, optionally with random number arrangement
- Calling via numeric keypad
- Siedle Touch built-in can be fitted in both portrait format as well as landscape format
- Visible image area (H x D): approx. 136 x 218 mm with horizontal installation
- It can be used in the In-Home bus or Access Professional system.

For entering control functions (such as open door with code), the Entrance controller EC 602-... or the Door controller IP TCIP 603-... is required.

Screen diagonal: 257 mm / 10.1"

Resolution: 1280 x 800 pixels

Installation type: Horizontal or vertical

Operating voltage: 48 V DC

Operating current: max. 500 mA

Current consumption in idle status: 350 mA

Protection system: IP 65 from the front

Ambient temperature:

-20 °C to +55 °C

Remarks

The Siedle Touch 10 built-in does not offer any dust or moisture protection at the rear.

Integration by the customer must ensure permanent protection (IP 54) against the effect of dust and moisture.

When mounting on the weather side of the building or in free-standing walls/columns, an additional rain protection must be provided on site.

When mounting, consider the lighting conditions, as these can affect the legibility of the panel.

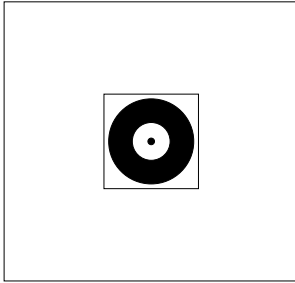
- Direct backlight
- Direct sunlight
- Reflective surfaces
- Direct light sources such as spotlights

Avoid direct sunlight / prolonged exposure to heat: If devices are exposed to sunlight for a prolonged period of time, the device's surface temperature or the temperature inside the device may exceed the maximum permitted ambient temperature for operation. Observe the permissible temperature range.

Recommended mounting height approx. 1.60 m to display height/viewing height (depending on the local/on-site requirements/conditions).

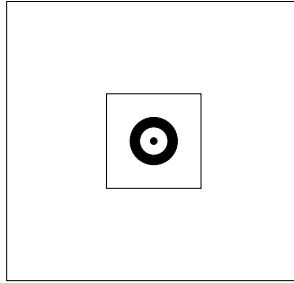
STE 10-... must be fitted such that it is accessible for servicing purposes.

Access cameras



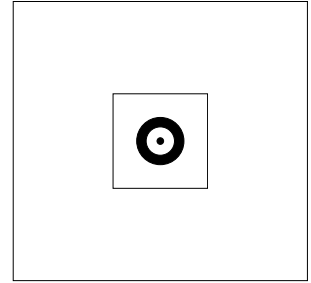
ACM 670-03

Access camera 80 for Siedle Vario with automatic day/night switchover (True Day/Night) and integrated infrared lighting. Horizontal/vertical pick-up angle: appr. 80°/60°
Colour system: PAL
Image pick-up: CMOS sensor 1/3" 756 x 504 Pixel
Resolution: 550 TV lines
Lens: 2.9 mm
Mechanical adjustment range: 30° horizontal/vertical
2-step heating: Integrated
Protection system: IP 54, IK 10
Ambient temperature: -20 °C to +55 °C
Height of structure (mm): 32
Dimensions (mm) W x H x D: 99 x 99 x 58



ACM 673-02

Access camera 130 for Siedle Vario with automatic day/night switchover (True Day/Night) and integrated infrared lighting. Horizontal/vertical pick-up angle: appr. 130°/100°
Colour system: PAL
Image pick-up: CMOS sensor 1/3" 756 x 504 Pixel
Resolution: 550 TV lines
Lens: 2.1 mm
Continuous operation: suitable
2-step heating: Integrated
Protection system: IP 54, IK 10
Ambient temperature: -20 °C to +55 °C
Height of structure (mm): 15
Dimensions (mm) W x H x D: 99 x 99 x 41

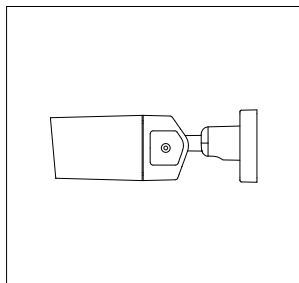


ACM 678-02

Access camera 180 for Siedle Vario with automatic day/night switchover (True Day/Night) and integrated infrared lighting. Horizontal/vertical pick-up angle: appr. 175°/120°
Full screen or 9 picture excerpts can be selected
Electronic image rectification in full screen
Extended pick-up angle in edge area for selected picture excerpt
Backlight compensation (BLC)
Colour system: PAL
Image pick-up: CMOS sensor 1/2.7" 1920 x 1080 pixels
Resolution: 600 TV lines
Lens: 1.55 mm
Continuous operation: suitable
2-step heating: Integrated
Protection system: IP 54, IK 10
Ambient temperature: -20 °C to +55 °C
Height of structure (mm): 15
Dimensions (mm) W x H x D: 99 x 99 x 41

5 System components

External cameras + Accessory



CE 600-01

Colour CCD video camera external mounting with automatic day/night switchover (True Day/Night) and integrated infrared lighting. Horizontal pick-up angle: appr. 81.2°–22.5°
Colour system: PAL

Image pick-up: CCD sensor 1/3"
976 x 582 Pixel

Resolution: 750 TV lines

Lens: 2.8–12 mm

Mechanical adjustment range: 160° horizontal/180° vertical

Continuous operation: suitable

Video output: 1 Vss at 75 Ohm

Operating voltage: 20–50 V DC

Operating current: max. 250 mA

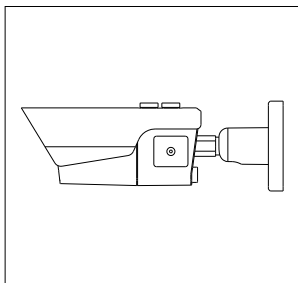
Protection system: IP 67

Ambient temperature:

–20 °C to +50 °C

Dimensions (mm) W x H x D:

75.3 x 76 x 218.5



CE 950-01

Colour CCD video camera external mounting with automatic day/night switchover (True Day/Night) and integrated infrared lighting. Horizontal pick-up angle: ca. 45.6°–4.0°
Colour system: PAL

Image pick-up: CCD sensor 1/4"
976 x 582 Pixel

Resolution: 700 TV lines

Lens: 3.8–45.6 mm

Mechanical adjustment range: 180° horizontal/vertical

Continuous operation: suitable

Video output: 1 Vss at 75 Ohm

Operating voltage: 20–50 V DC

Operating current: max. 500 mA

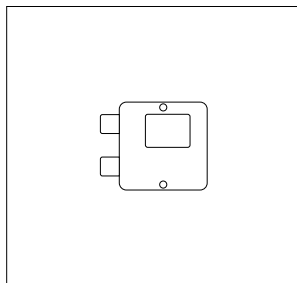
Protection system: IP 67

Ambient temperature:

–20 °C to +50 °C

Dimensions (mm) W x H x D:

100 x 108 x 267



AIVS 670-0

Access analog video standard interface in surface-mount housing for connection of an analog camera to the ATLC 670-...

Following a door call, the picture from the analog camera automatically appears on the Access indoor call station. Manual selection of the door is also possible. The camera cannot be controlled.

Protection system: IP 65

Ambient temperature:

–20 °C to +55 °C

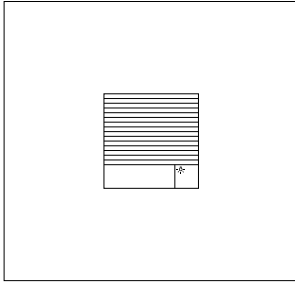
Dimensions (mm) W x H x D:

122 x 122 x 56

Dimensions housing (mm)

W x H x D: 93 x 93 x 56

Door loudspeaker



ATLM 670-0

Access door loudspeaker module for Siedle Vario with integrated loudspeaker and microphone.

Performance features:

- Front grille made of weather and UV-resistant polycarbonate
- Loudspeaker, voice volume can be adjusted
- Durable electret microphone
- Light button with LED-lit light symbol
- Connection of a ZAM 670-... status display module for optical and acoustic signalling of the operating state
- Acoustic feedback when pressing a call button can be activated

Up to max. 48 call button modules can be connected in any combination, allowing up to max. 192 call buttons to be connected.

Ambient temperature:

-20 °C to +55 °C

Protection system: IP 54

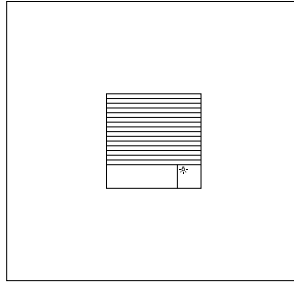
Height of structure (mm): 9

Dimensions (mm) W x H x D:

99 x 99 x 35

The ATLM 670-0 draws 48 V DC over terminals S1-S4 from the ATLC/NG 670-0. This converts the voltage into 15 V DC with max. 400 mA and outputs this to terminals b1 and c1 of the terminal block.

Within the door station, only the intended components may be supplied via the terminals b1 and c1.



ATLM 671-0

Access door loudspeaker module Plus for Siedle Vario with integrated loudspeaker and microphone, as well as additional audio amplifier and noise filter.

Performance features:

- Front grille made of weather and UV-resistant polycarbonate (via the Access server)
- Loudspeaker, voice volume can be adjusted
- Voice volume can be doubled via the audio amplifier
- Durable electret microphone
- Light button with LED-lit light symbol
- Connection of a ZAM 670-... status display module for optical and acoustic signalling of the operating state is possible
- Acoustic feedback when pressing a call button can be activated

Ambient temperature:

-20 °C to +55 °C

Protection system: IP 54

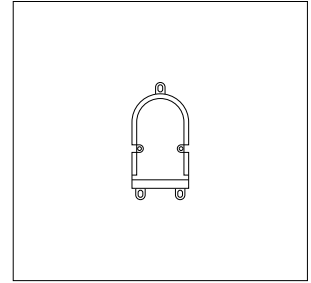
Height of structure (mm): 9

Dimensions (mm) W x H x D:

99 x 99 x 35

The ATLM 671-0 draws 48 V DC over terminals S1-S4 from the ATLC/NG 670-0. This converts the voltage into 15 V DC with max. 400 mA and outputs this to terminals b1 and c1 of the terminal block.

Within the door station, only the intended components may be supplied via the terminals b1 and c1.



ATLE 670-0

Access custom-fit door loudspeaker with bus call button matrix for installation in the customer's intercom compartments, door constructions, letterboxes, etc.

Up to 12 of the customer's call buttons can be directly connected to the BRMA 050-... bus call button matrix.

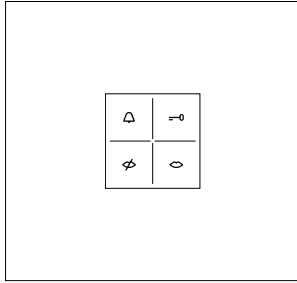
Performance features:

- Loudspeaker
 - Durable electret microphone
 - Connection of a ZAM 670-... status display module for optical and acoustic signalling of the operating state
 - Control output for external camera
 - Universal fastening options, when used with the ZJ 051-... grille, it can be screwed onto this directly
- Max. 16 BRMA 050-... can be connected to 1 ATLE 670-...
Protection system: Dependent on the mounting conditions
Dimensions (mm) W x H x D:
ATLE 670-0 124 x 60 x 31,
BRMA 050-01 53 x 100 x 17
Dimensions housing (mm)
W x H x D: 100 x 60 x 31

5 System components

Status display module

Digital call



ZAM 670-0

Status display module with visual and acoustic feedback. Four backlit LED symbols signal the different statuses: "Call", "Not available", "Speech" and "Door release". For use in Siedle Siedle Access Professional intercom system. The optical signal can be optically supported by an acoustic feedback. With the ZAM 670-..., activation of the additional acoustic feedback for the status messages is carried out using the Access server administration.

The supply limits of the ATLC/NG 670-... must be observed.

Operating voltage:

12 V AC, 15–32 V DC

Operating current: 70 mA

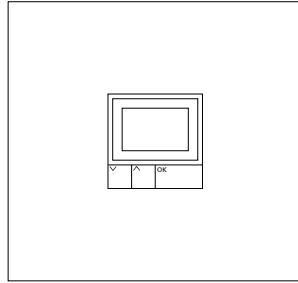
Protection system: IP 54

Ambient temperature:

–20 °C to +55 °C

Dimensions (mm) W x H x D:

99 x 99 x 26



DRM 612-01

Display call module as an input device with 4-line display for placing door calls.

Indication of names in the display in alphabetical order.

The DRM 612-... can also be used in combination with the COM 611-... in order to display the input via the DRM 612-...

Operating voltage: 12 V AC

Operating current: max. 200 mA

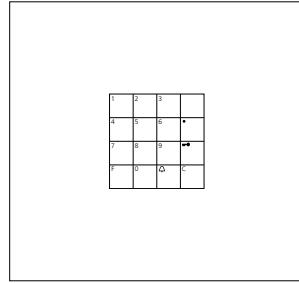
Protection system: IP 54

Ambient temperature:

–20 °C to +55 °C

Dimensions (mm) W x H x D:

99 x 99 x 27



COM 611-02

Code lock module as input unit for access control and for making door calls.

Depending on the functional scope of the access control and the intercom system, further devices are required for management and control functions.

- LED as status indicator, only for Vario (external potential-free contact)
- Door release button for direct door release via the EC 602-...
- Control functions (e.g. roller shutters)

Operating voltage: 12 V AC

Operating current: max. 140 mA

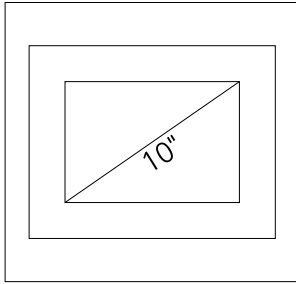
Protection system: IP 54

Ambient temperature:

–20 °C to +55 °C

Dimensions (mm) W x H x D:

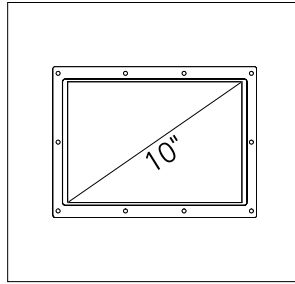
99 x 99 x 27

**ST 10-0 – Siedle Touch 10**

Siedle Touch 10: 25.7 cm (10.1") control panel for door communication and access control in conjunction with the Siedle Vario bus. For making door calls via digital call buttons or call numbers as well as for setting codes for control functions / access control.

It can be used in the In-Home bus or Access Professional system. For entering control functions (such as open door with code), the Entrance controller EC 602-... or the Door controller IP TCIP 603-... is required.

(For detailed information, see page 33)

**STE 10-0 – Siedle Touch 10 built-in**

Siedle Touch 10 built-in for integration in a façade. Control panel (25.7 cm/10.1") for door communication and access control in conjunction with the Siedle Vario bus.

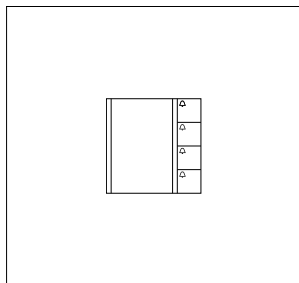
It can be used in the In-Home bus or Access Professional system. For entering control functions (such as open door with code), the Entrance controller EC 602-... or the Door controller IP TCIP 603-... is required.

(For detailed information, see page 34)

5 System components

Call buttons

System upgrading



BTM 650-01 to -04

Bus call button modules BTM 650-... with 1, 2, 3 or 4 call buttons. The

BTM 650-... is connected to the ATLM 670-... via ribbon cable.

Nameplate size (mm) W x H:
65 x 19.5

Call button (mm) W x H: 24 x 24

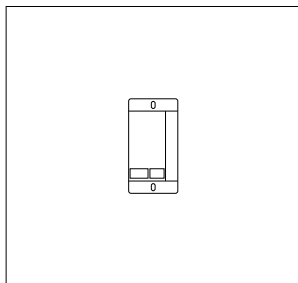
Protection system: IP 54

Ambient temperature:

-20 °C to +55 °C

Dimensions (mm) W x H x D:

99 x 99 x 27



BRMA 050-01

Bus call button matrix for connecting 12 on-site call buttons to the BTLE 050-.../ATLE 670-... custom-fit door loudspeaker.

Max. 160 call buttons can be connected. However, a bus call button matrix BRMA 050-... is required for each started group of 12 call buttons.

Max. 14 BRMA 050-... can be connected to 1 BTLE 050-...

Max. 16 BRMA 050-... can be connected to 1 ATLE 670-...

The connection of the call buttons for Siedle Classic is described in the call button wiring diagram.

(For detailed information, see page 108)

PME-...

Mail notification system for signaling incoming post on any Access indoor station.

The mail notification system must be taken into account during planning for the letterbox system, as it is no longer technically possible to retrofit it later on.

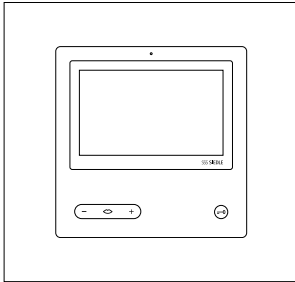
To use this function, the relevant indoor station must be configured via the Access administration interface.

TÖ-... (Door release)

Siedle door release units are high-resistance > 20 Ohm and provide operating reliability even over long ranges.

Standard commercially available door release units 8 – 12 V AC, 20 Ohm can be connected.

Indoor stations (audio/video) – Panels



AVP 870-0

Access video panel with 17.5 cm touchscreen for the Access Professional system, made of high-grade plastic. The panel is a system product with a low-profile surface mount housing for wall and table-top mounting. It provides ergonomically designed intuitive user prompting with gesture control.

The AVP 870-... can only be used in conjunction with Server Release V.2.1.0 and higher.

On a change of release, additional costs could be incurred under certain circumstances.

With the functions calling, speech, vision, door release, light, remote switching and call silencing.

Performance features:

- Individual crafted design concept offering a wide choice of varied features and finishes
- Display offers graphic scope for individual operation
- 17.8 cm (7") touchscreen, resolution 800 x 480 Pixel
- Brilliant image reproduction
- Excellent audio quality (dual loud-speaker technology)
- Input for storey call
- Output freely programmable
- Additional inputs and outputs with Access input/output accessory AZIO 870-...
- Call differentiation between door calls, storey calls, and internal calls
- Switching functions
- Video memory function
- Can be used with table-top accessory AZTVP 870-... as a table-top device
- Update capability using the Access server

Current consumption of the indoor station: PoE class 3

Operating voltage: PoE in accordance with 802.3af

Ambient temperature:

+5 °C to +40 °C

Dimensions (mm) W x H x D:

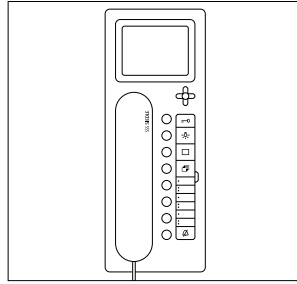
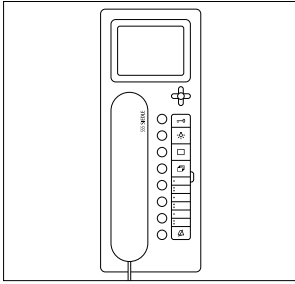
202 x 202 x 30

PoE – Power over Ethernet

Power supply devices (PoE switches) of newer PoE standards (IEEE 802.3at, IEEE 802.3bt) are usually downward compatible with IEEE 802.3af.

5 System components

Indoor stations (audio/video) – In-house telephone



AHTV 870-0

Access in-house telephone video with door release button and 7 additional buttons with 2-colour status LED. All buttons are freely programmable. The display shows the camera image and the graphic menu interface.

With the functions calling, speech, door release, vision, light, remote switching and call silencing.

Performance features:

- Display 8.8 cm
- Entrance for storey calls
- Exit freely programmable
- Call differentiation between door calls, storey calls and indoor calls
- Switching functions
- Status indications
- Video memory function
- Integrated 5-way control button
- Can be used with table-top accessory AZTV 870-... as a table-top device

Current consumption of the indoor station: PoE class 2

Operating voltage: PoE in accordance with 802.3af

Ambient temperature:

+5 °C to +40 °C

Dimensions (mm) W x H x D:

106 x 278 x 51

AHT 870-0

Access in-house telephone with door release button and 7 additional buttons with 2-colour status LED. All buttons are freely programmable. The display shows the graphic menu interface, but not a camera image. It is possible to upgrade to a fully functional video station.

With the functions calling, speech, door release, light, remote switching and call barring.

With the additional purchase of the AUV 870-... T, the AHT 870-... can be transformed into a fully valid video indoor device.

Performance features:

- Display 8.8 cm
- Input for storey call
- Output freely programmable
- Call differentiation between door calls, storey calls, and internal calls
- Switching functions
- Status messages
- Can be used with table-top accessory AZTV 870-... as a table-top device

Current consumption of the indoor station: PoE class 2

Operating voltage: PoE in accordance with 802.3af

Ambient temperature:

+5 °C to +40 °C

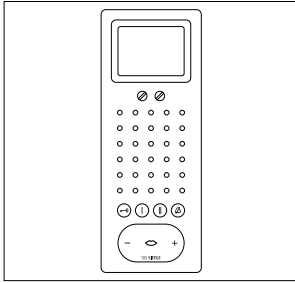
Dimensions (mm) W x H x D:

106 x 278 x 51

PoE – Power over Ethernet

Power supply devices (PoE switches) of newer PoE standards (IEEE 802.3at, IEEE 802.3bt) are usually downward compatible with IEEE 802.3af.

Indoor stations (audio/video) – Standard handsfree telephones



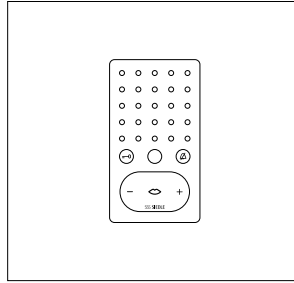
AFSV 870-0

Access Standard video handsfree telephone with colour monitor. Ergonomically optimised design for easy operation, outstanding acoustics.

With the basic functions calling, speech, vision, door release and call barring.

Performance features:

- Display (8.8 cm) with brightness and colour saturation control
 - Excellent speech reproduction and high volume
 - LED status display: Incoming call, active call, muting, system status, error status
 - Audio privacy device
 - Muting and status display
 - Call display on the speech button
 - Two buttons can be freely configured
 - Manual door connection even without a door call
 - Input for storey call
 - Speech and call volume in five stages
 - Call differentiation between door calls, storey calls, and internal calls
 - Central commissioning
 - Can be updated via the Access system
 - Current consumption of the indoor station: PoE class 1
- Operating voltage: PoE in accordance with 802.3af
Ambient temperature:
+5 °C to +40 °C
Dimensions (mm) W x H x D:
106 x 278 x 27



AFS 870-0

Access Standard handsfree telephone made of high-grade plastic. Ergonomically optimised design for easy operation, outstanding acoustics.

With the basic functions calling, speech, door release and call barring.

Performance features:

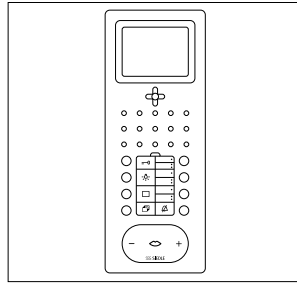
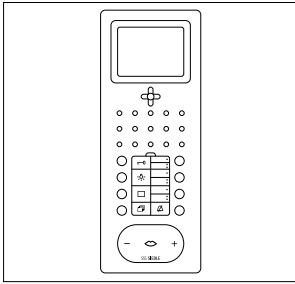
- Excellent speech reproduction and high volume
 - LED status display: Incoming calls, active call, muting
 - Audio privacy device
 - Muting and status display
 - Call display on the speech button
 - One button can be freely configured
 - Manual door connection even without a door call
 - Input for storey call
 - Speech and call volume in five stages
 - Call differentiation between door calls, storey calls, and internal calls
 - Central commissioning
 - Can be updated via the Access system
 - Current consumption of the indoor station: PoE class 1
- Operating voltage: PoE in accordance with 802.3af
Ambient temperature:
+5 °C to +40 °C
Dimensions (mm) W x H x D:
79 x 133 x 23

PoE – Power over Ethernet

Power supply devices (PoE switches) of newer PoE standards (IEEE 802.3at, IEEE 802.3bt) are usually downward compatible with IEEE 802.3af.

5 System components

Indoor stations (audio/video) – Discontin. art.



AHFV 870-0

Access handsfree telephone video with speech/control button, door release button and 7 additional buttons with 2-colour status LED. All buttons are freely programmable. The display shows the camera image and the graphic menu interface.

With the functions calling, speech, door release, vision, light, remote switching and call silencing.

Performance features:

- Display 8.8 cm
- Entrance for storey calls
- Exit freely programmable
- Call differentiation between door calls, storey calls and indoor calls
- Switching functions
- Status indications
- Video memory function
- Integrated 5-way control button
- Can be used with table-top accessory AZTV 870-... as a table-top device

Current consumption of the indoor station: PoE class 2

Operating voltage: PoE in accordance with 802.3af

Ambient temperature:

+5 °C to +40 °C

Dimensions (mm) W x H x D:

106 x 278 x 32

AHF 870-0

Access handsfree telephone with speech/control button, door release button and 7 additional buttons with 2-colour status LED. All buttons are freely programmable. The display shows the graphic menu interface, but not a camera image. It is possible to upgrade to a fully functional video station.

With the functions calling, speech, door release, light, remote switching and call barring.

With the additional purchase of the AUV 870-... F, the AHF 870-... can be transformed into a fully valid video indoor device.

Performance features:

- Display 8.8 cm
- Input for storey call
- Output freely programmable
- Call differentiation between door calls, storey calls, and internal calls
- Switching functions
- Status messages
- Can be used with table-top accessory AZTV 870-... as a table-top device

Current consumption of the indoor station: PoE class 2

Operating voltage: PoE in accordance with 802.3af

Ambient temperature:

+5 °C to +40 °C

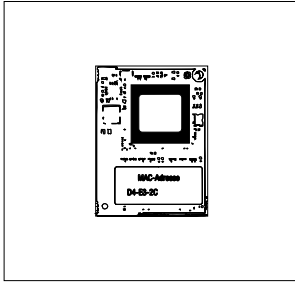
Dimensions (mm) W x H x D:

106 x 278 x 32

PoE – Power over Ethernet

Power supply devices (PoE switches) of newer PoE standards (IEEE 802.3at, IEEE 802.3bt) are usually downward compatible with IEEE 802.3af.

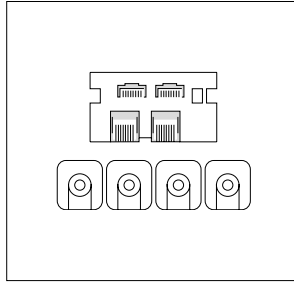
Accessory



AUV 870-0 T/F

Access upgrade video subsequently enables the video function in an audio device.

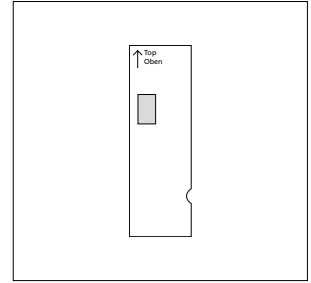
For the in-house telephone AHT 870-..., the AUV 870-0 T is required / for the handsfree telephone AHF 870-..., the AUV 870-0 F.



AZA 870-0

Access surface-mounting accessory for professional surface mounting of Access in-house and handsfree telephones (AHT/AHTV..., AVP..., AHF/AHFV...).

Comprises a connection adapter and 4 spacers. The raised height is increased by 8 mm.

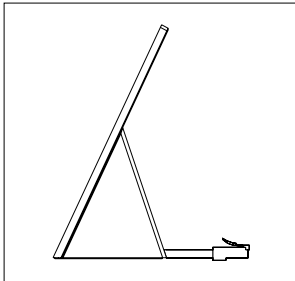


AZIO 870-0

Access input/output accessory as circuit board for integration in an indoor unit with an additional input/output.

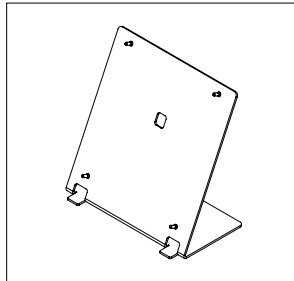
Switching output:

n.o. contact 30 V AC/DC, 1 A
Switching input for potential-free contacts (min. 20 V DC, 10 mA)



AZTV 870-0

Access table-top accessory for Access in-house and handsfree telephones (AHT/AHTV..., AHF/AHFV...) for conversion from wall mounted to table-top device, slip-proof console. Connecting cable: 2 x 8-core 3 m long with RJ45 plug



AZTVP 870-0

Table-top accessory for the video panel AVP 870-... for conversion from a wall to a table unit.

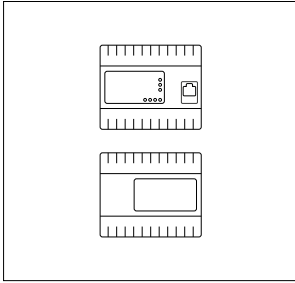
Performance features:

- Individual design concept with 3 design variants
- Slip-proof table foot
- Cable guide
- 2 connecting cables with RJ45 plug

Connecting cable: 2 x 8-core 3 m long with RJ45 plug

5 System components

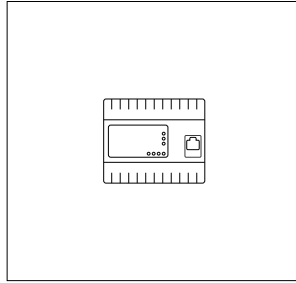
Distribution components – Door controller



ATLC/NG 670-0

Access door loudspeaker controller with line rectifier in switch panel housing as an interface for the connection and power supply of door components to the Access Professional network.

Set consisting of ATLC 670-0 and ANG 600-0.



ATLC 670-0

Access door loudspeaker controller in switch panel housing as interface for connecting the door station to a network.

Switch contact for door release and freely programmable switching input.

Optional connection facility for a maximum of 3 extension modules ATLC 670-...

Supply via ANG 600-0

Supply voltage 48 V DC

Output voltage: 10–16 V AC/DC

Output current:

max. 700 mA AC/300 mA DC

Contact type: Contact 30 V, 2 A

Protection system: IP 20

Ambient temperature:

0 °C to +40 °C

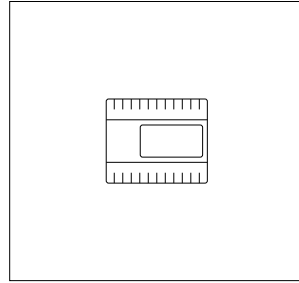
Horizontal pitch (HP): 6

Dimensions (mm) W x H x D:

107 x 89 x 60

Storey call

With Access Professional V. 4.2.0 and above, each switching input can be configured for the storey call function.



ANG 600-0

Access line rectifier in switch panel housing with 230 V AC switching contact.

Admissible switching output:

- Light bulbs max. 1300 W
- Fluorescent lamps max. 800 W
- Twin fluorescent lamps max. 1200 W

- Parallel compensated fluorescent lamps max. 400 W

Operating voltage:

100–240 V AC, +/-10 %, 50/60 Hz

Operating current: 0.5–1 A

Output voltage: 48 V DC

Output current: 800 mA

Fusing: primary thermal fuse,

secondary short circuit proof

Contact type: changeover switch

max. 250 V AC, 6 A

Protection system: IP 20

Ambient temperature:

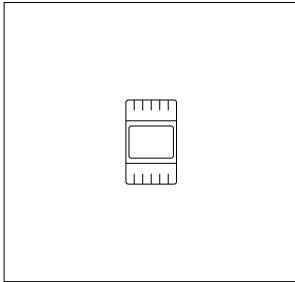
0 °C to +40 °C

Horizontal pitch (HP): 6

Dimensions (mm) W x H x D:

107 x 89 x 60

Distribution components – Active/passive system expansion



ATLCE 670-0

Access door loudspeaker controller extension in switch panel housing with 4 outputs and 2 inputs. A maximum of 3 ATLCE 670-... units can be connected in series to an ATLC 670-... by means of ribbon cable.

Protection system: IP 20

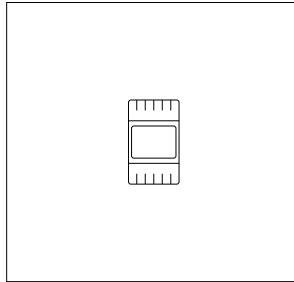
Ambient temperature:

0 °C to +40 °C

Horizontal pitch (HP): 3

Dimensions (mm) W x H x D:

53.5 x 89 x 60



AVA 670-0

Access video decoupler in switch panel housing. Permits the decoupling of an analogue video signal from the Access Professional system.

Operating voltage: 10–50 V DC

Operating current: max. 25 mA

Protection system: IP 20

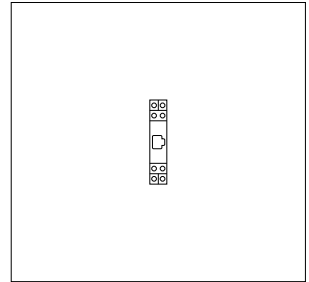
Ambient temperature:

0 °C to +40 °C

Horizontal pitch (HP): 3

Dimensions (mm) W x H x D:

53.5 x 89 x 60



ZWA 640-0

Western socket accessory for switch panel mounting. Integrated socket for 4/6/8-pin western plug.

Connection by means of screw-type terminals.

Protection system: IP 20

Ambient temperature:

0 °C to +40 °C

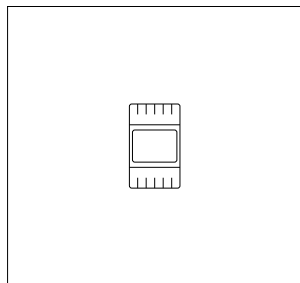
Horizontal pitch (HP): 1

Dimensions (mm) W x H x D:

18 x 90 x 60

5 System components

Distribution components – Anti-pilfer controller



DSC 602-0 (Siedle Vario)

Pilfer safeguard controller in a switch panel housing to control a maximum of 2 pilfer safeguard accessories ZDS 601-...

At one DSC 602-..., a maximum of two ZDS 601-... units can be connected, allowing up to four modules to be secured through a DSC 602-...

. Locking is only possible with the Vario key removed. In order to guarantee reliable switching of the DSC 602-..., the buttons must be actuated for at least 1 second. A pause of at least 5 seconds must elapse between two actuations.

After every mounting frame locking process using the DSC 602-... the Vario door station must be checked with the Vario key without fail, as the integrated LED does not include status monitoring.

Using 2 integrated buttons, the mounting frame can be locked and unlocked. An LED flashes to indicate that the release button at the DSC 602-... has been activated. It is only possible to lock the mounting frame after removing the Vario key.

Operating voltage: 12 V AC
Operating current: max. 100 mA
Protection system: IP 20

Ambient temperature:

0 °C to +40 °C

Horizontal pitch (HP): 3

Dimensions (mm) W x H x D:

53.5 x 89 x 60

ZDS 601-0 (Siedle Vario)

Anti-pilfer accessory with bistable magnet for integration into mounting frame MR 611-...

A stable metal plate is used to lock the release mechanism and prevents the removal of function modules.

Ambient temperature:

-20 °C to +55 °C

Dimensions (mm) W x H x D:

22.4 x 9 x 13.5

ZDS/CL (Siedle Classic)

Anti-pilfer accessory for mounting in the Siedle Classic door station as a concealed electromagnetic locking mechanism to secure the mounting screws.

With anti-pilfer controller SDSC 602-01 in switch panel housing, for actuation of the anti-pilfer accessory ZDS/CL (for 1 pair), with status LED.

This can be mounted in any system with one or more function modules, in vertical arrangement.

For mounting in the door station as a concealed electromagnetic locking mechanism for the control panel.

Operating voltage: 12 V AC

Operating current: max. 850 mA

Protection system: IP 20

Ambient temperature: SDSC 602-01

0 °C to +40 °C, Locking

-20 °C to +55 °C

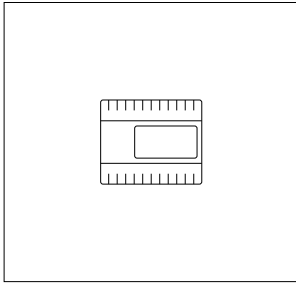
Horizontal pitch (HP): 3

Dimensions (mm) W x H x D:

SDSC 602-01 53.5 x 89 x 60,

Locking 25 x 70 x 32

Distribution components – Line rectifiers



ANG 600-0

Access line rectifier in switch panel housing with 230 V AC switching contact.

Admissible switching output:

- Light bulbs max. 1300 W
- Fluorescent lamps max. 800 W
- Twin fluorescent lamps max. 1200 W
- Parallel compensated fluorescent lamps max. 400 W

Operating voltage:

100–240 V AC, +/-10 %, 50/60 Hz

Operating current: 0.5–1 A

Output voltage: 48 V DC

Output current: 800 mA

Fusing: primary thermal fuse, secondary short circuit proof

Contact type: changeover switch max. 250 V AC, 6 A

Protection system: IP 20

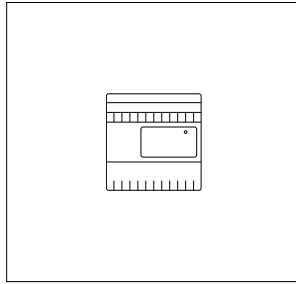
Ambient temperature:

0 °C to +40 °C

Horizontal pitch (HP): 6

Dimensions (mm) W x H x D:

107 x 89 x 60



NG 706-30/33-0

Line rectifier in switch panel housing for central supply of Siedle system components.

Operating voltage:

230 V AC, +/-10 %, 50/60 Hz

Operating current: 250 mA

Output voltage: 30 V DC

Output current: 1.1 A

Fusing:

secondary side with thermal fuse

Protection system: IP 20

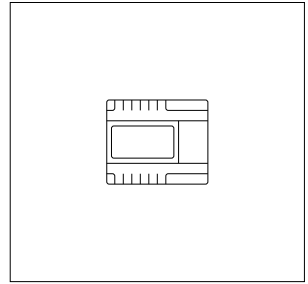
Ambient temperature:

0 °C to +40 °C

Horizontal pitch (HP): 6

Dimensions (mm) W x H x D:

107 x 109 x 60



NG 602-01

Line rectifier in switch panel housing for supplying additional components (e.g. external camera).

Operating voltage:

230 V AC, +/-10 %, 50/60 Hz

Operating current: 200 mA

Output voltage: 23.3 V DC, 12 V AC

Output current: 0.3 A DC, 1.6 A AC

Fusing: primary Si1 T 200 mA L, secondary side with thermal fuse

Protection system: IP 20

Ambient temperature:

0 °C to +40 °C

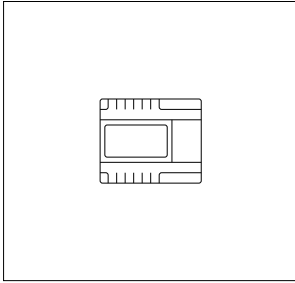
Horizontal pitch (HP): 6

Dimensions (mm) W x H x D:

107 x 89 x 60

5 System components

Distribution components – Transformers



TR 602-01

Transformer in switch panel housing for supplying additional components (e.g. entrance controller for access control).

Operating voltage:

230 V AC, +/-10 %, 50/60 Hz

Operating current: 170 mA

Output voltage: 12 V AC

Output current: max. 2.5 A

Fusing: primary Si1 T 200 mA L, secondary side with thermal fuse

Protection system: IP 20

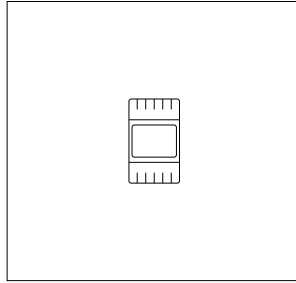
Ambient temperature:

0 °C to +40 °C

Horizontal pitch (HP): 6

Dimensions (mm) W x H x D:

107 x 89 x 60



TR 603-0

Transformer in switch panel housing for supplying additional components (e.g. mail notification system or door release via potential-free contact).

Operating voltage:

230 V AC, +/-10 %, 50/60 Hz

Operating current: 100 mA

Output voltage: 12 V AC

Output current: max. 1.3 A

Fusing: primary thermal fuse, secondary short circuit proof

Protection system: IP 20

Ambient temperature:

0 °C to +40 °C

Horizontal pitch (HP): 3

Dimensions (mm) W x H x D:

53.5 x 89 x 60

Space requirements in distribution boards/IT cabinets (19 inch)

Please make sufficient provisions in the electrical distribution boards/IT cabinet system for later expansion, changes or subsequent disassembly (service/maintenance).

All system components which are designed for/suitable for installation in an electrical distribution board or in an IT cabinet system/housing may only be installed in the permitted installation position according to the enclosed product information.

If system components are operated in improper installation positions or with improper operating parameters (e.g. excessive ambient temperature), this will render their warranty rights void in the event of service. During planning, take the applicable legal provisions, standards, directives and safety instructions for the operation/installation site into account.

Space requirement (width) in the distribution

Models	Horizontal pitches (HP)
ANG 600-0	6
ATLC 670-0	6
ATLCE 670-0	3
ATLC/NG 670-0	2 x 6 HP
AVA 670-0	3
NG 602-01	6
NG 706-30/33-0	6
TR 602-01	6
TR 603-0	3

1 HP = 18 mm

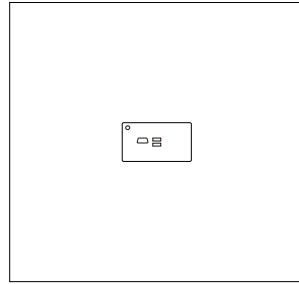
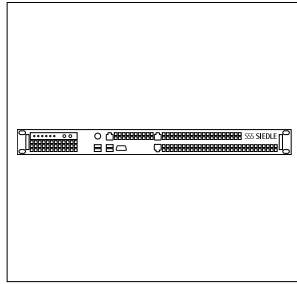
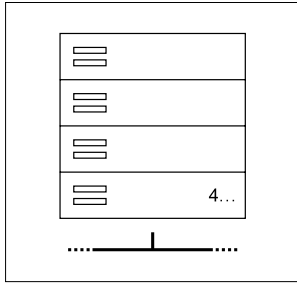
Space required (height) in IT cabinet system/housing (19 inch)

Models	Rack units (RU)
ASH 671-0 M	2

1 HE = 44,45 mm

5 System components

Access server variants



Access Professional

Access system software for installation and operation on existing server hardware/virtualization with installed server operating system according to requirements.

An Access user licence is required for standard operation.

In order to use all the functions of Access Professional correctly as a software variant, the provided server hardware/virtual machine and the network infrastructure must meet the minimum requirements of the Access system. For detailed information, see page 54.

ASH 671-0 M

Access Server hardware M for the IP-based building communication system Siedle Access Professional for up to 640 users. The Access Professional basic licence is required for standard operation – 10 users are included. Additional users/functions can be added to the system by purchasing further user or application licences. Version in a housing for IT cabinet systems (482.6 mm / 19") – space requirement (height): 1 rack unit (RU).

Scope of supply:

Access Server hardware in 19" housing incl. pre-installed server operating system GNU/Linux Debian... and Access Professional with 30-day test licence as well as electrical connecting cable and small mounting items for installation in an existing 19" IT cabinet system.

CPU: Intel Xeon E-2224

Working memory:

8 GB DDR4 2666 MHz

Graphics: Onboard (VGA)

Hard disc: 240 GB SSD

LAN: 2 x gigabit

USB: 3.0

Operating voltage:

100–240 V AC, 50–60 Hz

Typical current consumption:

71 W (max. 200 W)

Ambient temperature:

0 °C to +40 °C

Dimensions (mm) W x H x D:

437 x 43 x 249

ASH 671-0 S

Access Server hardware S for the IP-based building communication system Siedle Access Professional for up to 50 users. The Access Professional basic licence is required for standard operation – 10 users are included. Additional users/functions can be added to the system by purchasing further user or application licences. Version in a compact desktop metal housing.

Scope of supply:

Access Server hardware in a compact desktop metal housing incl. pre-installed server operating system GNU/Linux Debian... and Access Professional with 30-day test licence as well as external power supply unit.

CPU: Intel Celeron N3160

Working memory:

4 GB DDR3 1600 MHz

Graphic: Onboard (HDMI/DP)

Hard disc: 64 GB SSD

LAN: 2 x gigabit

USB: 3.0

Operating voltage:

100–240 V AC, 50–60 Hz

Typical current consumption:

15 W (max. 40 W)

Ambient temperature:

0 °C to +40 °C

Dimensions (mm) W x H x D:

116 x 65 x 110

A comparison of Access server variants

Access server variant	Access Professional	ASH 671-0 M	ASH 671-0 S
Versions	Software without server operating system/virtualization	Hardware server + pre-installed Access Professional	Hardware server + pre-installed Access Professional
Access system version	Access Professional V 6...	Access Professional V 6...	Access Professional V 6...
Possible number of users (User licences)	10–640	10–640	10–50
Possible number of communication connections (simultaneously)	25 (Call signalling of up to 50 devices)	25 (Call signalling of up to 50 devices)	10 (Call signalling of up to 20 devices)
Conditions	<ul style="list-style-type: none"> • Hardware server / virtualization • Server operating system (Debian Linux... (Buster) • Network/VLAN as required • Indoor stations with POE supply • Software clients on terminals with network connection 	<ul style="list-style-type: none"> • Network/VLAN as required • Indoor stations with POE supply • Software clients on terminals with network connection 	<ul style="list-style-type: none"> • Network/VLAN as required • Indoor stations with POE supply • Software clients on terminals with network connection
As-delivered status	<ul style="list-style-type: none"> • The Access server must be installed and commissioned. • User and application licences are needed for operating the Access system. • After the basic parameters have been saved, a 30-day test period begins with the initial commissioning during which all system functions with a maximum number of devices can be used without restriction. • The server hardware/virtualization and server operating system must be provided by the customer and must be available. 	<ul style="list-style-type: none"> • The Access server is installed ready for operation and prepared for commissioning by the customer. • User and application licences are needed for operating the Access system. • After the basic parameters have been saved, a 30-day test period begins with the initial commissioning during which all system functions with a maximum number of devices can be used without restriction. • In the as-delivered status, the DHCP server of the Siedle Access Server is active. 	
		Remark	
		The standard login data for the server operating system of a Access Server Hardware (from ASH 671-0...) are:	
		User	Password *
		root	SiedleAccessMain2019 –
		access	SiedleAccessMain2015 Active
		* Please change the password on initial commissioning, taking note of the security instructions.	

5 System components

A comparison of Access server variants

Minimum requirements – Server hardware / Virtual machine *

Possible number of users (User licences)	640	50
Processor output	min. Intel Xeon Quad Core Processor 64 Bit (from launch year 2018 or more recent)	min. Intel Atom Dual Core Processor 64 Bit (from launch year 2017 or more recent) *
Random access memory (RAM)	at least 4 GB	at least 4 GB
Storage location (HD)	at least 240 GB	at least 64 GB
Network connection (LAN)	at least 1 x 1000 Mbit/s	at least 1 x 1000 Mbit/s

Server operating system/software

Operating system	• Debian Linux... (Buster)
Role of the server operating system	optionally: DHCP server service, if no DHCP server is operated in the existing network.
Other server services	optionally: NTP server
Necessary DHCP options	Time Server, Log Servers, NTP Servers, Boot Server Host Name, Bootfile Name Optionally: Router (Default Gateway), Domain Name and DNS-Server
Access system version	Access Professional – from Version 6.0.0
Access licences	For regular operation of Access Professional, an Access user licence must be purchased against a fee. Optional application licences enable the use of additional performance features.

Network connection

Network	Own physical network from CAT-5e and optionally with modified VLAN with Quality of Service (IEEE802.1p)
Transmission speed	100 MBit/sec (End devices) 1000 MBit/sec (Server hardware)
Internet protocol	IPv4
Distribution list	The use of switches is a requirement.
Power over Ethernet (PoE)	Access indoor stations require PoE-capable switches or PoE injectors in compliance with IEEE802.3af

* For Access systems with up to 50 users, server hardware can be used which corresponds to the performance data of Access server hardware S.

Important: Please note that in this configuration, no virtualization and no additional system expansion are possible.

System conditions**Access Professional**

In order to use all the functions of Access Professional correctly as a software variant, the provided server hardware/virtual machine and the network infrastructure must meet the minimum requirements of the Access system.

Remarks

In order to work with Access Server Administration, you need an PC with the latest version of the web browser Google Chrome / Microsoft Edge / Mozilla Firefox. If you use a different web browser, display errors can occur.

Important!

Avoid operating further applications and server services on the server operating system intended for Siedle Access. This can lead to performance impairments and malfunctions.

Additional requirements imposed on virtualization

- For virtualization, from **VMware vSphere 6** upwards a **virtualization solution configured for server systems** must be used.
- The minimum requirements imposed on the virtual machine are the same on principle as server hardware provided by the customer for up to 640 devices. With the virtual machine, remember that at least 2 virtual and separate processor units (CPUs) must be made available.
- If virtualization is used, the host (physically present server on which the virtual machine is operated) must have sufficient performance to make available the output needed for the virtual machine.

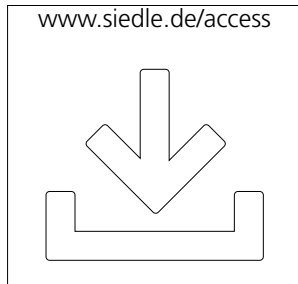
Remarks

The size of the hard disk storage capacity which should be selected depends on various factors when using a virtualization solution:

- Number of groups and terminals
- Utilization scenario and incidence of communication
- Activated video memory function: If no video memory function is used, we recommend a hard disk storage capacity of at least 30 Gigabytes. When using the video memory function, please contact the Access Service Center to be advised on the minimum capacity required for the hard disk memory.
- For Access systems with up to 50 users, server hardware can be used which corresponds to the performance data of Access server hardware S.
- Important: Please note that in this configuration, no virtualization and no additional system expansion are possible.

5 System components

Upgrade (server)



ALU 670-0

Access licence upgrade for enabling and using Siedle Access Professional after a system upgrade.

Order notes:

The Access licence upgrade can be purchased exclusively through an Access Certified Partner. To place the order, the old hardware ID (prior to the upgrade) and the new hardware ID (after the upgrade) for the Access System are needed. The new licence key is created, enabled and supplied by the Access Service Centre. Existing licences for the previous Access system remain valid, but must be converted.

Scope of supply:

- Licence key for Access Professional

AIS 670-0

Access installation stick with operating system image in current version, for installing a new Access system or upgrading an existing system with Siedle Access Professional.

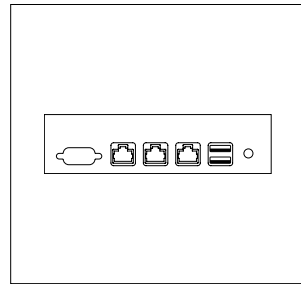
Order notes:

The Access installation stick can be purchased exclusively from an Access Certified Partner. To enable and use Siedle Access Professional...

- on a new system, you will also require the Access Professional basic licence APR 670-0 B.
- after upgrading an existing system, you will also require Access licence upgrade ALU 670-0.

Scope of supply:

- USB stick with system image (Server operating system GNU/Linux Debian...) in the latest version
- Upgrade instructions



AGW 671-0

Access gateway for the physical separation of 2 networks at an Access server. To operate Access end devices in different networks, two or more proprietary networks can be connected to an Access system and still be kept strictly separate from each other by using one or more Access gateways in larger network structures.

The AGW 671-... can only be used in conjunction with Server Release V/6.0.1 and higher.

On a change of release, additional costs could be incurred under certain circumstances.

Operating voltage: 12 V DC

Typical current consumption:

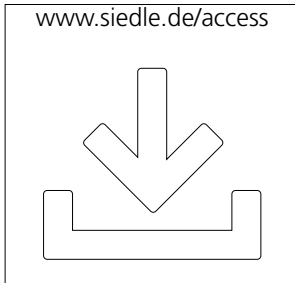
max. 24 W

Ambient temperature:

0 °C to +50 °C

Dimensions (mm) W x H x D:

200 x 200 x 52

**ASHT 170-0**

Access application licence "Access in-house telephone software" for the operation of ASHT software on the Access Professional system. The ASHT enables audio and video door communication via Windows-based PCs or control panels.

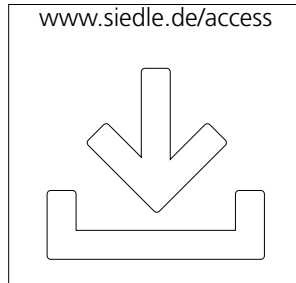
Function overview:

- Call differentiation between door calls, storey calls and indoor calls
- Device and user overview
- Users, doors and devices can be selected from lists
- Global contact list
- Status displays of switchgear
- Switching functions via ATLC/ATLCE or KNX

System requirements:

- Microsoft® Windows 8, 8.1, 10
- Microsoft® .NET Framework 4.6.2 or later
- Microsoft® VC++ 2015 Redistributable Package (x86)
- Microsoft® Media Feature Pack (Windows N and KN editions only)
- At least Microsoft® DirectX® 9.0c

- CPU: Dual-Core from 2.0 GHz
- At least 2 GB RAM
- Graphics card with at least 1280 x 800 pixel, 128 MB RAM
- Ethernet card/Network connection: 100 Mbit
- Sound card

**ASC 170-0**

Access application licence "Access Software Concierge" for the operation of the ASC software on the Access Professional system.

The ASC is the central communication interface at the reception.

Function overview:

- Several audio and video links can be depicted simultaneously
- Convenient forwarding functions
- Music-on-hold
- Status overview of all Doormatic door statuses
- Convenient switching/control and display functions
- Global contact list (incl. personal contact management)
- Camera scan function
- Answering machine functions

System requirements:

- Microsoft® Windows 8, 8.1, 10
- Microsoft® .NET Framework 4.6.2 or later
- Microsoft® VC++ 2015 Redistributable Package (x86)
- Microsoft® Media Feature Pack (Windows N and KN editions only)
- At least Microsoft® DirectX® 9.0c

- CPU: Dual-Core from 2.0 GHz
- At least 2 GB RAM
- Graphics card with at least 1280 x 800 pixel, 128 MB RAM
- Ethernet card/Network connection: 100 Mbit
- Sound card

**Siedle App** (As of Access 5.1)

The Siedle app turns a smartphone (iOS, Android) into a mobile extension of a door intercom system from Siedle, via the Siedle server. The app has been specially developed for the requirements of door communication. It receives the door call, shows a live video feed (depending on the system), establishes a speech connection and opens the door. With built-in security and the ultimate in convenience. The video feed is available before the call is accepted. The speech quality fulfils Siedle's stringent standards, and the door is opened by pressing the familiar key symbol.

The Siedle app is the mobile complement to a door intercom system and does not replace an indoor device.

For this reason, Siedle recommends always including a wired indoor station in your system planning alongside the app.

The Siedle app is being continuously further developed. Current information on the functional scope and illustrations of the relevant valid version statuses are available in the App Store/Play Store.

Equipped with consistent basic functionality, the interfaces of the apps for iOS and Android differ in certain details. The user interfaces of the apps can be viewed in the App Store/Play Store. The Siedle App is optimized for use on the iPhone, iPad and Android smartphone, and can be used on Android tablets - but not optimized for this.

6 Licences and test period

Licences

- User and application licences are needed for operating the Access system.
 - The customer determines the required number of devices with the licence. The user licences can be purchased for up to 640 devices per system. Each device or client occupies one user licence.
 - The customer determines the usable device types/scope of functions with the application licences.
- User licences for hardware indoor stations and door controllers are contained in the scope of delivery. Additional application licences are needed for software clients, third-party devices and for activating further functionality.

Test period

- After the basic parameters have been saved, a 30-day test period begins with the initial commissioning during which all system functions with a maximum number of devices can be used without restriction.
- After expiry of the 30-day trial period, the Access Professional system is deactivated and cannot be used until the Access licences are imported. The administrator user interface can still be accessed and the relevant notice is displayed on the dashboard.
- The licence can only be successfully imported if at least the number of devices contained in the system and the scope of functions are covered by the user/application licences.
- The test period ends when the licence is imported.

Licence type	Licence	Description	Device type
Fee-based user licences	APR 670-0 B	Access Professional basic licence	–
	APR 670-0 10	Access Professional user licence	–
Application licences which contain the scope of supply		Access door loudspeaker controller (ATLC)	Door controller Internal call station (Audio)
		Access in-house telephone (AHT)	Internal call station (Video)
		Access video in-house telephone (AHTV)	Internal call station (Audio)
		Access handsfree telephone (AHF)	Internal call station (Video)
		Access video handsfree telephone (AHFV)	Internal call station (Video)
		Access video panel (AVP)	
Optional application licences	ALFA 270-0	Access licence for connecting a non-Siedle device	VoIP telephone (audio/video)
	ALFP 270-0	Access licence for non-Siedle panel device	Android panel with pre-installed Access client (JUNG SC ...)
	ALKNX 270-0 *	Access licence for KNX connection	KNX Gateway
	ALSA 270-0	Access licence for Siedle App	App for smartphones/tablets with Android/iOS
	ALT 270-0 *	Access licence for telephony connection	Telephone system
	ASC 170-0	Access Software Concierge	Windows PC software
	ASHT 170-0	Access Software In-house telephone	Windows PC software

* does not use a user licence

Access user licences

Licence type	Description
APR 670-0 B	Access Professional basic licence for activating and using Siedle Access Professional, Version 6 and above – 10 users (end devices) are included.
APR 670-0 10	Access Professional user licence for extending and using Siedle Access Professional for up to 10 users (end devices).

Optional Access application licences

Licence type	Description
Third-party audio device (ALFA 270-0)	Access application licence "Access licence for connecting a non-Siedle device" for the operation of a VoIP telephone (audio/video) on the Access Professional system. Using a VoIP-ATA adapter, it is also possible to connect an analog telephone. Third-party devices are subject to authorization by Siedle.
Non-Siedle panel (ALFP 270-0)	Access application licence "Access licence for non-Siedle panel device" for the operation of a Jung Smart Control Panel (JUNG SC ...) on the Access Professional system. A separate licence is required per device.
KNX link (ALKNX 270-0)	Access application licence "Access licence for KNX gateway" for the use of a KNX gateway on the Access Professional system. A separate licence is required per gateway.
Siedle App (ALSA 270-0)	Access application license "Access License for Siedle App" for the operation of a smartphone/tablet with Android/iOS on the Access Professional system. A license is required for each device with Siedle App installed.
Telephony link (ALT 270-0)	Access application licence "Access licence for telephony connection" for the use of an external connection channel on the Access Professional system. A separate licence is required per channel. Third-party devices are subject to authorization by Siedle.
Access software concierge (ASC 170-0)	Access application licence "Access Software Concierge" for the operation of the ASC software on the Access Professional system. The ASC is the central communication interface at the reception. A separate licence is required per client. (Currently only PCs/laptops/tablets with Windows 8, 8.1, 10)
Access in-house telephone (ASHT 170-0)	Access in-house telephone licence for connection of the software client in-house telephone to the Access system. A separate licence is required per client. (Currently only PCs/laptops/tablets with Windows 8, 8.1, 10)

6 Licences and test period

Third party device licences

For many requirements, the market is flooded by a large number of ideas and devices. Communication and compatibility between the different components can sometimes be an issue. For this reason, it is advisable to make contact at an early stage with our project sales department. The link-up of new third-party devices / technical systems can be checked on customer request. For testing, a test device must be made available by the customer.

Licence purchasing

- Customers and sales partners from Germany, please consult one of our Access Certified Partners. *
- Customer and sales partners outside Germany please contact your Siedle representative in your country. For detailed information, see page 162.

* Access Certified Partners (ACPs) are authorized to commission Access systems. They have proven their competency as planners and administrators of Siedle Access systems, have passed audits and are certified by Siedle.

Contact details are available on the internet at www.siedle.com/acp

Procedure – Licence purchasing

Access Professional (Software variant)

Test period

After the basic parameters have been saved, a 30-day test period begins with the initial commissioning during which all system functions with a maximum number of devices can be used without restriction.

For regular operation of Access Professional, an Access user licence must be purchased against a fee.

After expiry of the 30-day test period, the Access system is deactivated and cannot be used until the Access user licence is imported.

Optional application licences enable the use of additional performance features.

Time of placement of order

The Access user licence and optional application licences must be ordered from an Access Certified Partner after Access Professional has been started for initial commissioning and the hardware ID has been generated. For licence orders, the hardware ID generated by the Access system is required.

ASH 671-0 M/S (Access server hardware + Access Professional)

Test period

After the basic parameters have been saved, a 30-day test period begins with the initial commissioning during which all system functions with a maximum number of devices can be used without restriction.

For regular operation of Access Professional, an Access user licence must be purchased against a fee.

After expiry of the 30-day test period, the Access system is deactivated and cannot be used until the Access user licence is imported.

Optional application licences enable the use of additional performance features.

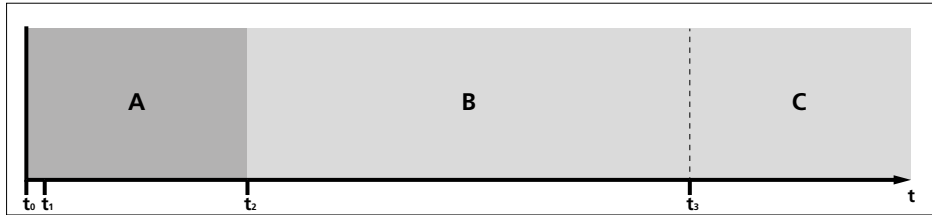
Time of placement of order

The Access user licence and optional application licences must be ordered from an Access Certified Partner after Access Professional has been started for initial commissioning and the hardware ID has been generated. For licence orders, the hardware ID generated by the Access system is required.

7 Maintenance agreements

- For each Access system, Siedle offers optional maintenance agreements. The maintenance agreements include permanent software updating and regular updates for maintaining security and functionality.
- Maintenance contracts for the Siedle Access system can be purchased both through the Siedle Project Sales and through an Access Certified Partner (ACP).
- The maintenance period is initially 1 year after first commissioning of the Access server for all systems. After this, all customers can decide whether they wish to extend the maintenance period for their system by paying for an extended maintenance contract.
- Alternatively, updates/upgrades must be purchased for a fee in certain circumstances.

Maintenance contract recommendation



Periods	Description	Note
A	Free warranty period	30-day test period and 1-year software maintenance
B	Fee-based maintenance period	Maintenance contract with 2-year minimum term
C	Fee-based maintenance period	Annual extension of the maintenance contract with 1-year term

Time points

t_0	Initial commissioning of the Access system and start of the 30-day unrestricted test period	–
t_1	Latest time point for the import of the Access licences and end of the test period	–
t_2	Start of the fee-based maintenance period and end of the free warranty period	–
t_3	Continuation of the fee-based maintenance period	–

8 Configuration – Access System 6...

	ATLC 670-...	AFSV 870-... / AFS 870-...	AHVV 870-... / AHF 870-...	AHTV 870-... / AHF 870-...	AVP 870-...	ASC 170-...	ASHT 170-...	JUNG SC ... *	Siedle App *	SIP telephone
General										
Name	•	•	•	•	•	•	•	•	•	•
Description	•	•	•	•	•	•	•	•	•	•
Call number (Internal)	•	•	•	•	•	•	•	•	•	•
User name	-	-	-	-	-	•	•	-	-	-
Password	-	-	-	-	-	•	•	-	-	•
Directory	-	-	•	•	•	•	•	-	-	•
Call Profile	•	•	•	•	•	•	•	•	-	-
CTI device (via Drag&Drop)	-	-	-	-	-	•	•	-	-	-
MAC address	•	•	•	•	•	-	-	•	-	-
Installation type (Wall / table)	-	-	•	•	•	-	-	-	-	-
Activate building automation	-	-	-	-	•	-	-	-	-	-
URL building automation	-	-	-	-	•	-	-	-	-	-
Ringtone volume	-	•	•	•	•	-	-	-	-	-
Speech volume	•	•	•	•	•	-	-	-	-	-
Display time at the terminal	-	-	•	•	•	-	-	-	-	-
Microphone sensitivity	•	-	-	-	-	-	-	-	-	-
Acoustic button acknowledgements (Call Key Acknowledgement)	•	-	-	-	-	-	-	-	-	-

* from Access-Server V 5.1...
(Siedle App) / from Access-
Server V 6... (JUNG SC ...)

- = available
- = Not available

8 Configuration – Access System 6...

	ATLC 670-...	AFSV 870-... / AFS 870-...	AHFV 870-... / AHF 870-...	AHTV 870-... / AHF 870-...	AVP 870-...	ASC 170-...	ASHT 170-...	JUNG SC ... *	Siedle App *	SIP telephone
Button configuration										
Single click	-	•	•	•	-	-	-	-	-	-
Double click	-	-	•	•	-	-	-	-	-	-
Press button	-	-	•	•	-	-	-	-	-	-
Release button	-	-	•	•	-	-	-	-	-	-
Light button (Door light)	•	-	-	-	-	-	-	-	-	-
Call buttons (Button): The number is dependent on the equipment of the door stations)	•	-	-	-	-	-	-	-	-	-
Door release button / 2–8	-	-	•	•	-	-	-	-	-	-
Button / tile 1–44	-	-	-	-	•	-	-	-	-	-
Switching outputs/inputs										
Voltage mode output 23,24	•	-	-	-	-	-	-	-	-	-
Output Terminals 23,24	•	-	-	-	-	-	-	-	-	-
Output Terminals 13,14	•	-	-	-	-	-	-	-	-	-
Output ANG Terminals 11,12,14	•	-	-	-	-	-	-	-	-	-
Output RJ45 Terminals 4,5	-	-	•	•	•	-	-	-	-	-
Inversion	•	-	•	•	•	-	-	-	-	-
Retriggering	•	-	•	•	•	-	-	-	-	-
Input Terminals 15,16,17,18	•	-	-	-	-	-	-	-	-	-
Input RJ45 (Terminals 3,6)	-	-	•	•	•	-	-	-	-	-
Input (Terminals ERT)	-	•	-	-	-	-	-	-	-	-
Extension of the switching outputs/inputs										
Door controller extension ATLCE 670-... (max. 3 ATLCE units per ATLC)	•	-	-	-	-	-	-	-	-	-
Hardware device extension AZIO 870-... (max. 1 AZIO per hardware terminal)	-	-	•	•	•	-	-	-	-	-
Doormatic										
Time in seconds	•	•	•	•	•	•	•	•	-	•
Doormatic function can be activated	•	•	•	•	•	•	•	•	-	(•)*

• = available
- = Not available

* Activation is only possible via a Siedle device or via the Access system administration.

9 Digital call

As an alternative to making calls via the call buttons, the door call can optionally be made via the COM 611-... or DRM 612-... modules, also optionally with the COM 611-... + DRM 612-... combination or via a touchpanel, like on the Siedle Touch ST 10-....

In the case of properties with many call destinations or constantly changing call recipients, it is advisable to use digital calls, either with or without display, instead of many call buttons and nameplates.

As door stations in Access systems are supplied via the Vario bus, various input devices for making door calls (digital calls) can be directly connected at the door station:

- Depending on the technical features of the door station, the COM 611-... can be fully connected without additional power supply within the door station.
- Please note that for the connection with an additional power supply 2 free wires are required for the power supply.

Supply units – digital call

Input unit	Supply unit	For detailed information, see page
COM 611-...	TR 603-...*	
DRM 612-...	TR 603-...*	38, 50
COM 611-... + DRM 612-...	TR 603-...	
Siedle Touch...	ANG 600-... + TR 603-...	33, 49, 50

* Is only required if the door station's supply limit (ATLC/NG 670-0 Access door loudspeaker controller with line rectifier) no longer suffices.
For detailed information, see page 19

10 Access circuit diagrams

Overview

Device category		Page	Door loudspeaker/ Status display module
Models			ATLM 670-... ATLM 671-... ZAM 670-... CATLE 670-... SATLM 670-... ATLE 670-...
Siedle Vario	Basic circuit diagram (Video)	70	•
	Potential-free door release work contact A2	72	•
	Potential-free door release changeover contact A3	74	•
	Additional power supply	76	•
	Pilfer safeguard	78	•
	Video decoupler (camera in switching operation)	80	•
	Video decoupler (camera in continuous operation)	82	•
	External camera	84	•
	External camera and video decoupler	86	•
	Code lock module (Digital call)	88	•
	Display call module (Digital call)	90	•
	2 door stations/display call modules (Digital call)	92	•
	Radio chime	94	•
	Basic circuit diagram (Audio)	96	•
	Basic circuit diagram (Video) + Status display module	98	• •
Basic circuit diagram (Audio) + Status display module	100	• • •	
Access custom-fit door loudspeaker	Access camera module	102	•
	External camera	104	•
	Basic circuit diagram (Audio)	106	•
Siedle Classic	Wiring diagram for call buttons	108	
	Basic circuit diagram (Video)	110	•
	Pilfer safeguard	112	•
	Video decoupler (camera in continuous operation)	114	•
	2 mail notification systems	116	•
	Code lock module (Digital call)	118	•
	Display call module (Digital call)	120	•
Siedle Steel	Basic circuit diagram (Video)	122	•
	Video decoupler (camera in continuous operation)	124	•
	2 mail notification systems	126	•
	Code lock module (Digital call)	128	•
	Display call module (Digital call)	130	•
Camera connection	External camera	132	
	External camera with video distributor	134	
Storey call button	Customer-side signalling device	136	

10 Access circuit diagrams

Switching outputs/inputs

The number of switching outputs and inputs can be extended for each indoor station and each door controller. The following list contains the as-delivered status and the maximum full extension per device type.

Model	Number of switching outputs	Number of switching inputs
Indoor stations AHF/AHFV/AHT/AHTV/AVP	1	1
Max. 1 extension (AZIO) per indoor station	1	1
Total number (max. fully extended system)	2	2

Indoor stations AFS/AFSV	–	1
Total number	–	1

Door controller		
ATLC/NG 670-0	3	1/1
ATLCE extension (Max. 3 extensions per ATLC)	4 (12)	2/2 (6/6)
Total number (max. fully extended system)	15	7/7

Device type	Switching outputs			
	A1	A2	A3	A4
Indoor stations AHF/AHFV/AHT/AHTV/AVP	N.O. contact 30 V, 1 A Terminals (4, 5)	-	-	-
Indoor stations Extension AZIO	-	N.O. contact 30 V, 1 A Terminals (7, 8)	-	-
Door controller ATLC	Prog. door release output 10-16 V AC, max. 700 mA 13 V DC, max. 300 mA Terminals (23, 24)	N.O. contact 30 V, 2 A Terminals (13, 14)	Changeover contact 250 V, 6 A Terminals (11, 12, 14)	-
Door controller extension ATLCE	Changeover contact 30 V, 2 A Terminals (11, 12, 14)	Changeover contact 30 V, 2 A Terminals (21, 22, 24)	N.O. contact 30 V, 2 A Terminals (31, 34)	N.O. contact 30 V, 2 A Terminals (41, 44)

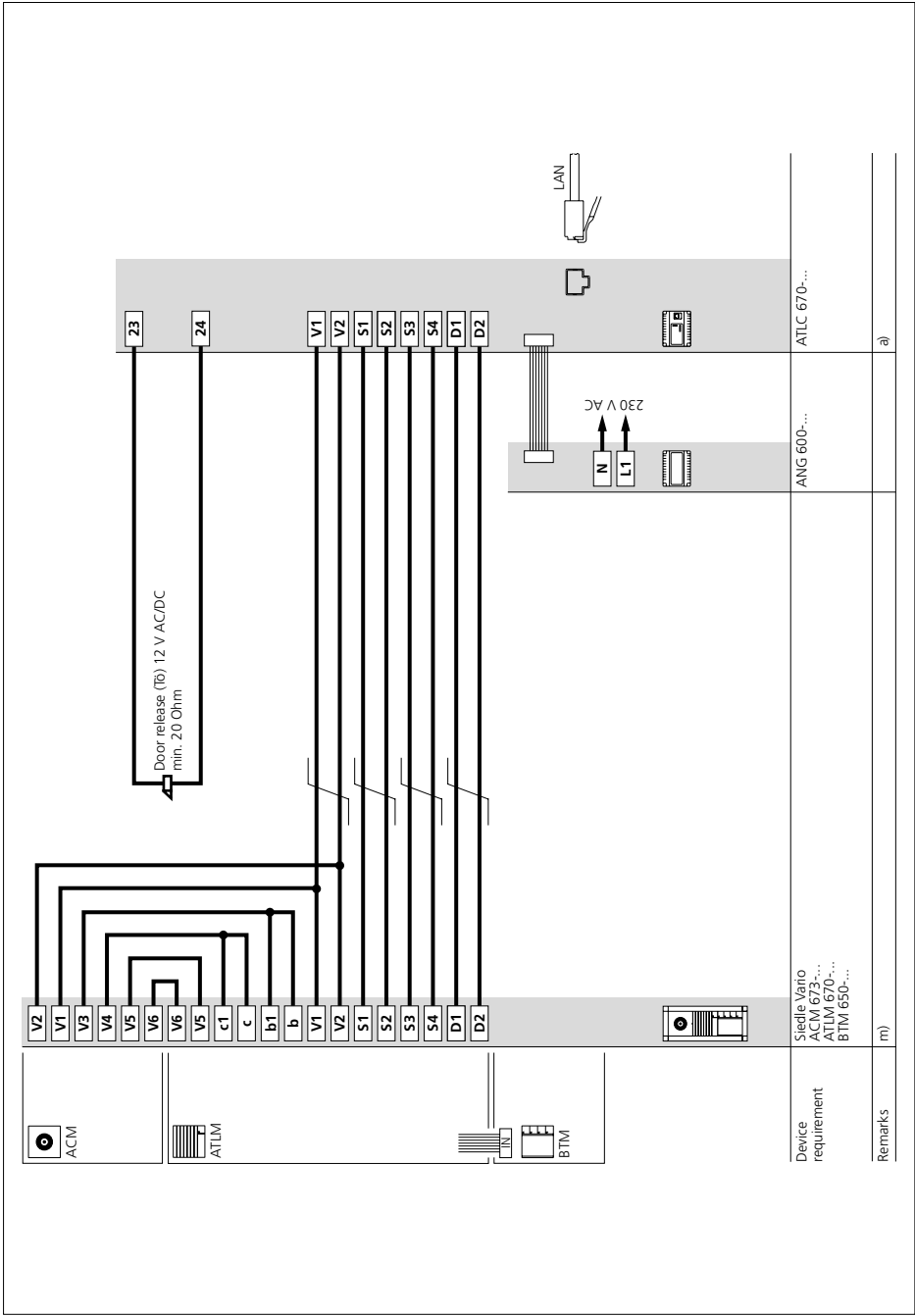
Device type	Switching inputs			
	E1		E2	
Indoor stations AHF/AHFV/AHT/AHTV/AVP	Potential-free contact min. 20 V DC, 10 mA Terminals (3, 6) Storey call button	–	–	–
Indoor stations AFS/AFSV	Potential-free contact min. 20 V DC, 10 mA Terminals (ERT) Storey call button	–	–	–
Indoor station upgrade AZIO	–	–	Potential-free contact min. 20 V DC, 10 mA Terminals (1, 2)	–
Door controller ATLC	Potential-free contact min. 20 V DC, 10 mA Terminals (15, 16)	Galvanically isolated 5-30 V DC, 10 mA Terminals (17, 18)	–	–
Door controller extension ATLCE	Potential-free contact min. 20 V DC, 10 mA Terminals (15, 16)	Galvanically isolated 5-30 V DC, 10 mA Terminals (17, 18)	Potential-free contact min. 20 V DC, 10 mA Terminals (25, 26)	Galvanically isolated 5-30 V DC, 10 mA Terminals (27, 28)

The Siedle Access device log is available for commissioning support and documenting the switching outputs and inputs used.

The Siedle Access device log can be found in the Siedle download area/ as a supplement for each of the network-capable Access components at www.siedle.com

10.1 Siedle Vario

Basic circuit diagram (Video)



Notes on the circuit diagram

a) If door releases or gate control systems are fitted and their connected values do not correspond to 12 V AC/DC and min. 20 Ohm, then either switching output 2 (ATLC terminals 13/14 (output)) or switching output 3 (ANG terminals 11/12/14 (output)) can be used as a potential-free door release contact.

To use switching output 2 or 3 as a potential-free door release contact, you must configure the corresponding ATLC switching output in the Access administration interface.

- The use of the potential-free switching outputs is described in separate diagrams.

(For detailed information, see page 72, 74)

m) Where there are more than 10 BTM 650-... units, an additional 12 V AC supply, for instance TR 603-..., must be installed due to the current consumption. To use the additional supply, the jumpers on the ATLM are removed from b1/c1 to b/c and the b/c terminals are directly connected to the additional supply. The jumpers for the ACM camera module between the terminals V3/V4 and the terminals b1/c1 remain as they are.

- Supply limits ATLC/NG 670-...

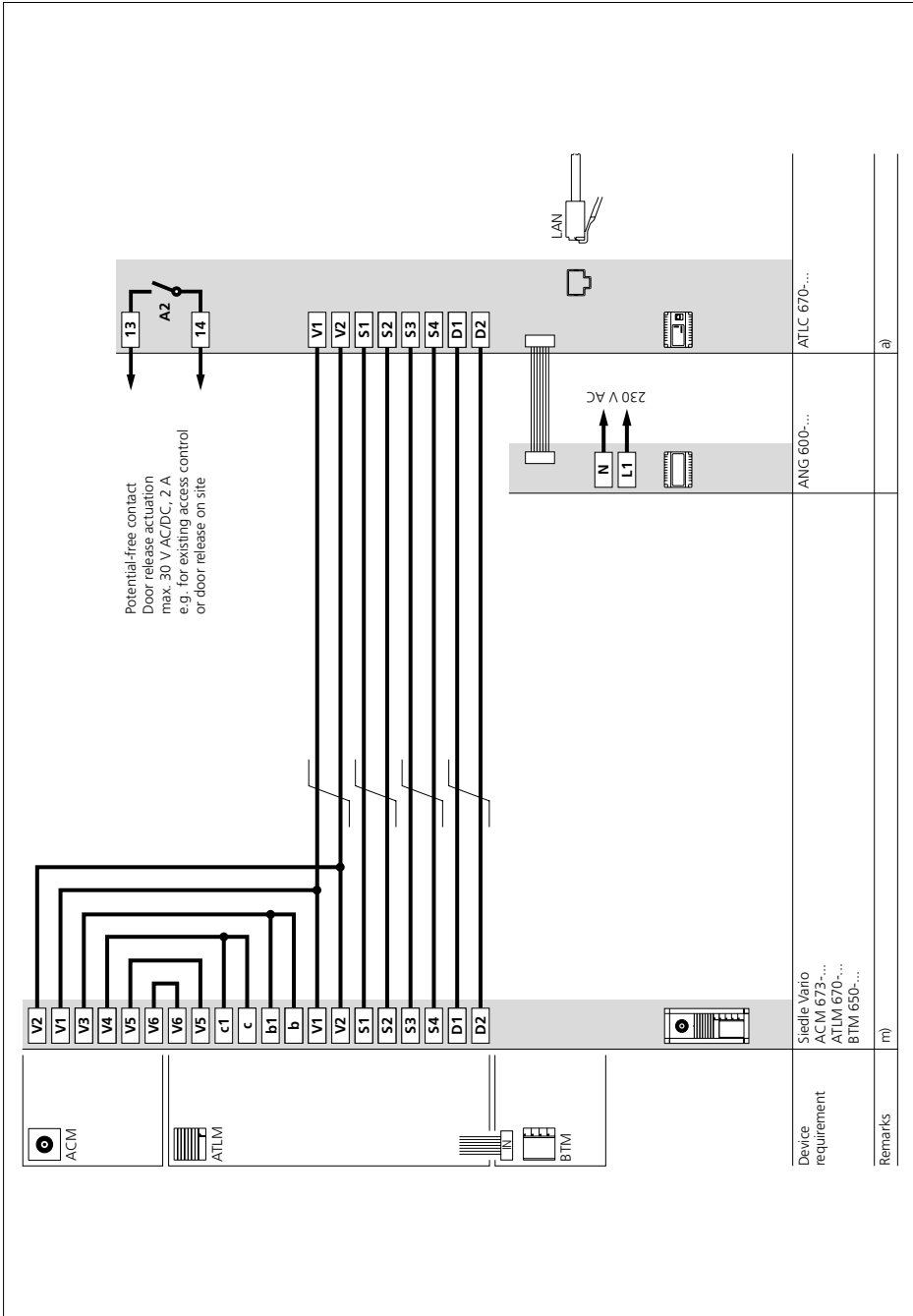
(For detailed information, see page 19, 24)

- The use of an additional power supply is described in a separate diagram.

(For detailed information, see page 76)

10.1 Siedle Vario

Potential-free door release work contact A2



Notes on the circuit diagram

a) If door releases or gate control systems are fitted and their connected values do not correspond to 12 V AC/DC and min. 20 Ohm, then either switching output 2 (ATLC terminals 13/14 (output)) or switching output 3 (ANG terminals 11/12/14 (output)) can be used as a potential-free door release contact.

To use switching output 2 or 3 as a potential-free door release contact, you must configure the corresponding ATLC switching output in the Access administration interface.

- The use of the door release switching output A1 (ATLC terminals 23, 24) is described in the video basic circuit diagram.

(For detailed information, see page 70)

m) Where there are more than 10 BTM 650-... units, an additional 12 V AC supply, for instance TR 603-..., must be installed due to the current consumption. To use the additional supply, the jumpers on the ATLM are removed from b1/c1 to b/c and the b/c terminals are directly connected to the additional supply. The jumpers for the ACM camera module between the terminals V3/V4 and the terminals b1/c1 remain as they are.

- Supply limits ATLC/NG 670-...

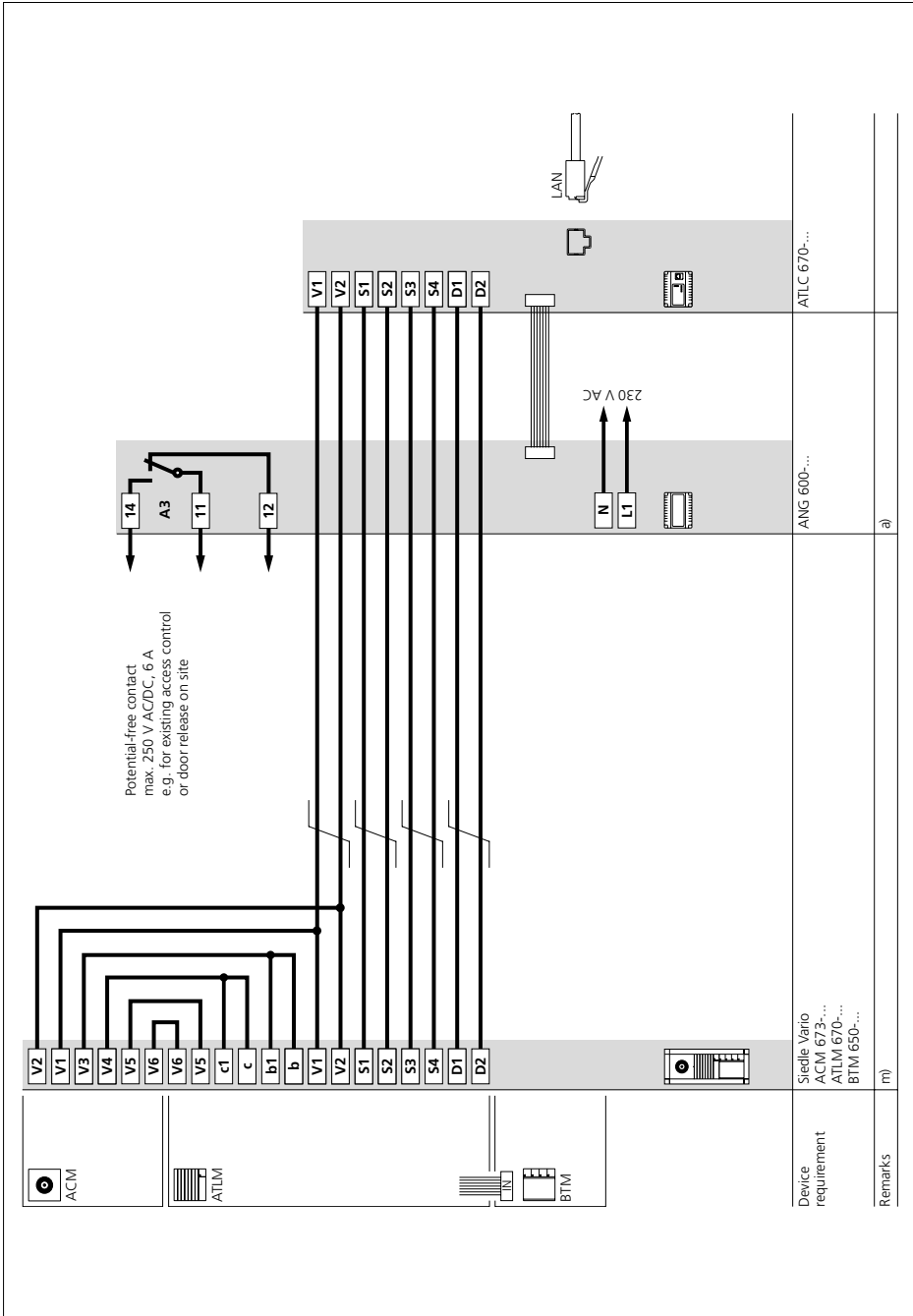
(For detailed information, see page 19, 24)

- The use of an additional power supply is described in a separate diagram.

(For detailed information, see page 76)

10.1 Siedle Vario

Potential-free door release changeover contact A3



Notes on the circuit diagram

a) If door releases or gate control systems are fitted and their connected values do not correspond to 12 V AC/DC and min. 20 Ohm, then either switching output 2 (ATLC terminals 13/14 (output)) or switching output 3 (ANG terminals 11/12/14 (output)) can be used as a potential-free door release contact.

To use switching output 2 or 3 as a potential-free door release contact, you must configure the corresponding ATLC switching output in the Access administration interface.

- The use of the door release switching output A1 (ATLC terminals 23, 24) is described in the video basic circuit diagram.

(For detailed information, see page 70)

m) Where there are more than 10 BTM 650-... units, an additional 12 V AC supply, for instance TR 603-..., must be installed due to the current consumption. To use the additional supply, the jumpers on the ATLM are removed from b1/c1 to b/c and the b/c terminals are directly connected to the additional supply. The jumpers for the ACM camera module between the terminals V3/V4 and the terminals b1/c1 remain as they are.

- Supply limits ATLC/NG 670-...

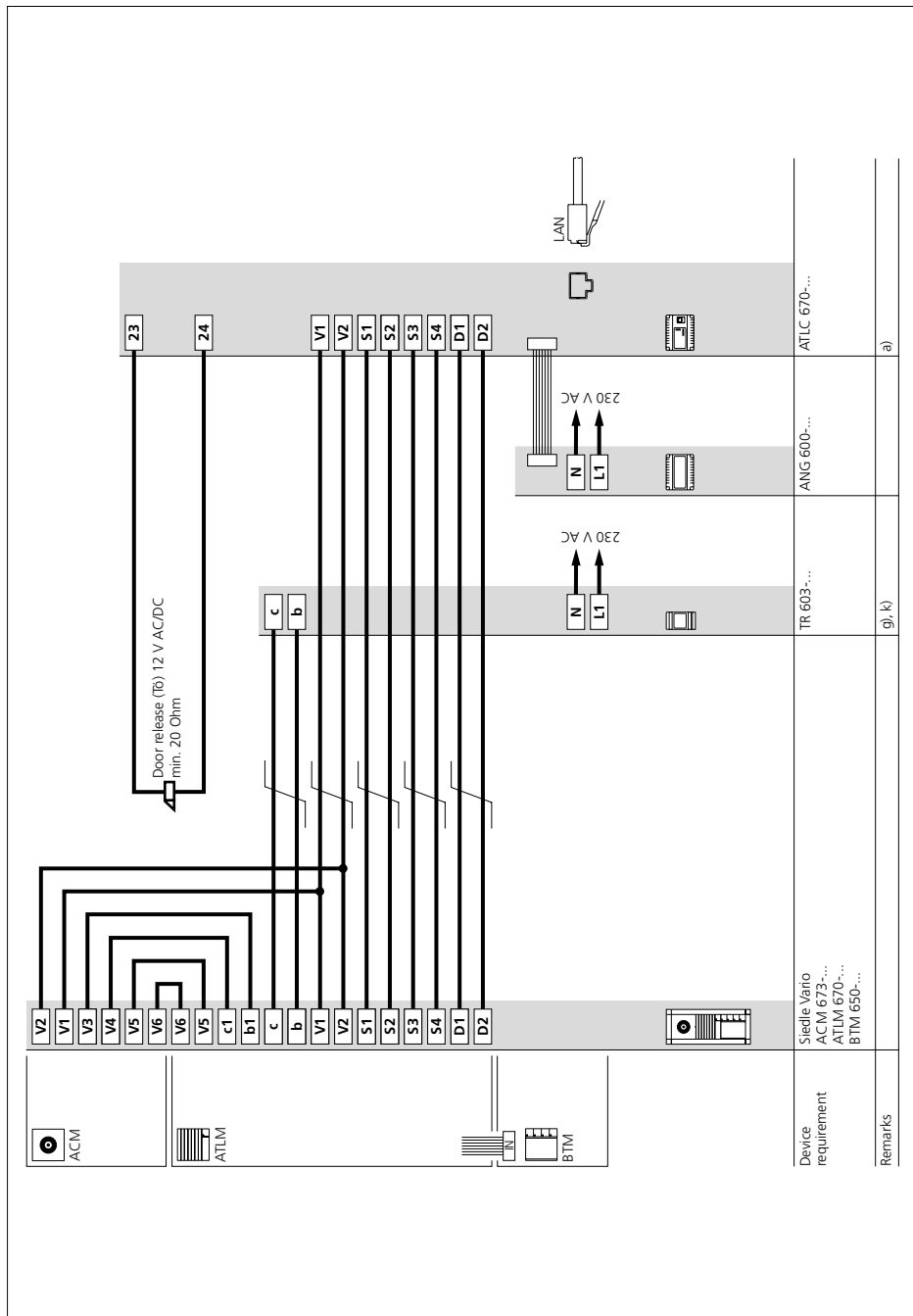
(For detailed information, see page 19, 24)

- The use of an additional power supply is described in a separate diagram.

(For detailed information, see page 76)

10.1 Siedle Vario

Additional power supply



Notes on the circuit diagram

a) If door releases or gate control systems are fitted and their connected values do not correspond to 12 V AC/DC and min. 20 Ohm, then either switching output 2 (ATLC terminals 13/14 (output)) or switching output 3 (ANG terminals 11/12/14 (output)) can be used as a potential-free door release contact.

To use switching output 2 or 3 as a potential-free door release contact, you must configure the corresponding ATLC switching output in the Access administration interface.

- The use of the potential-free switching outputs is described in separate diagrams.

(For detailed information, see page 72, 74)

g) Is only required if more than 10 BTM 650-... units are installed at this door station.



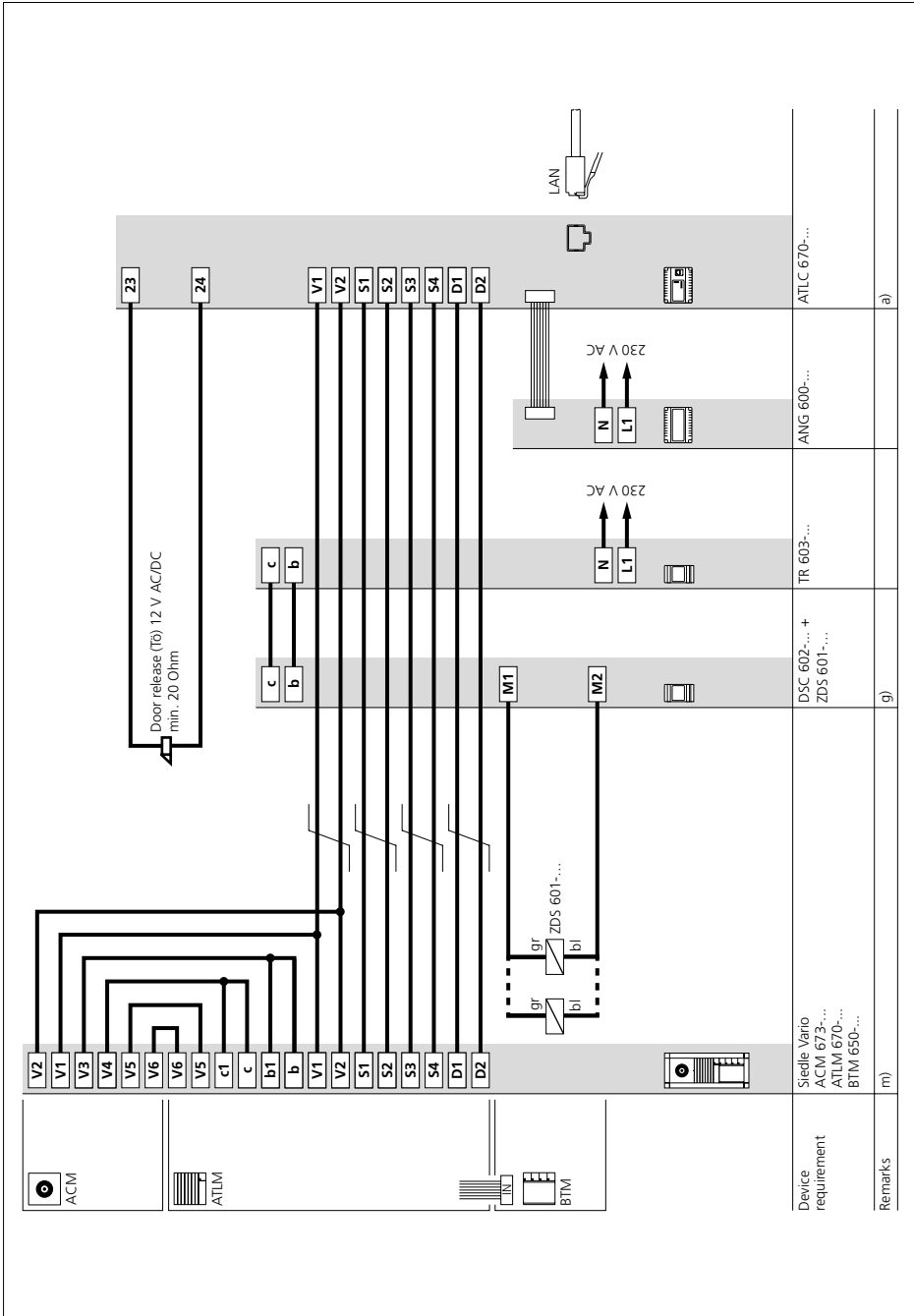
k) If the BTM 650-... units are supplied via a separate transformer, no connection between c1 and c / b1 and b may exist at the ATLM 670-... terminal block.

- Supply limits ATLC/NG 670-...

(For detailed information, see page 19, 24)

10.1 Siedle Vario

Pilfer safeguard



Notes on the circuit diagram

a) If door releases or gate control systems are fitted and their connected values do not correspond to 12 V AC/DC and min. 20 Ohm, then either switching output 2 (ATLC terminals 13/14 (output)) or switching output 3 (ANG terminals 11/12/14 (output)) can be used as a potential-free door release contact.

To use switching output 2 or 3 as a potential-free door release contact, you must configure the corresponding ATLC switching output in the Access administration interface.

- The use of the potential-free switching outputs is described in separate diagrams.

(For detailed information, see page 72, 74)

g) Operation via the door station's internal power supply is not possible. A separate power supply is required.

m) Where there are more than 10 BTM 650-... units, an additional 12 V AC supply, for instance TR 603-..., must be installed due to the current consumption. To use the additional supply, the jumpers on the ATLM are removed from b1/c1 to b/c and the b/c terminals are directly connected to the additional supply. The jumpers for the ACM camera module between the terminals V3/V4 and the terminals b1/c1 remain as they are.

- Supply limits ATLC/NG 670-...

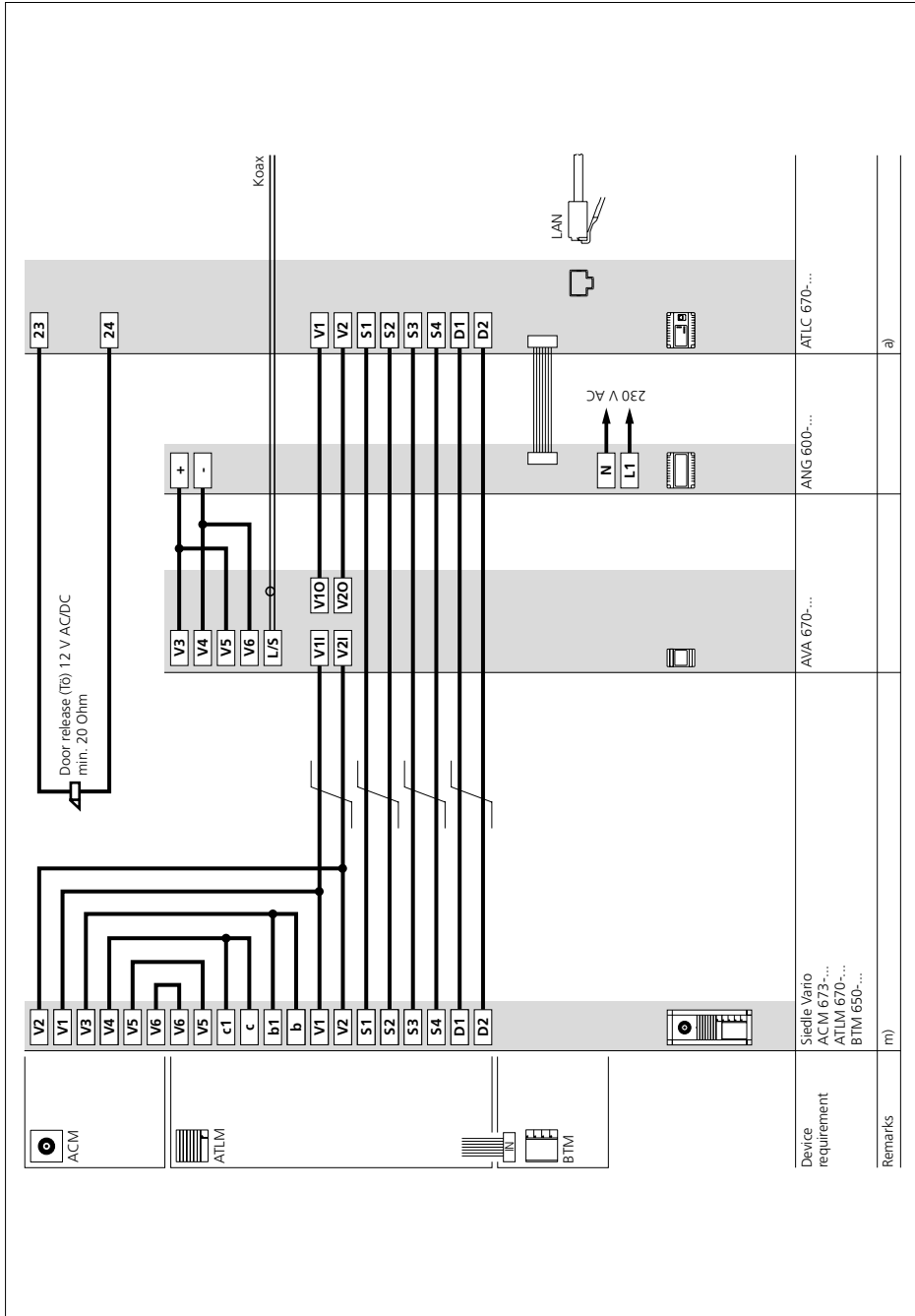
(For detailed information, see page 19, 24)

- The use of an additional power supply is described in a separate diagram.

(For detailed information, see page 76)

10.1 Siedle Vario

Video decoupler (camera in switching operation)



Notes on the circuit diagram

a) If door releases or gate control systems are fitted and their connected values do not correspond to 12 V AC/DC and min. 20 Ohm, then either switching output 2 (ATLC terminals 13/14 (output)) or switching output 3 (ANG terminals 11/12/14 (output)) can be used as a potential-free door release contact.

To use switching output 2 or 3 as a potential-free door release contact, you must configure the corresponding ATLC switching output in the Access administration interface.

- The use of the potential-free switching outputs is described in separate diagrams.

(For detailed information, see page 72, 74)

m) Where there are more than 10 BTM 650-... units, an additional 12 V AC supply, for instance TR 603-..., must be installed due to the current consumption. To use the additional supply, the jumpers on the ATLM are removed from b1/c1 to b/c and the b/c terminals are directly connected to the additional supply. The jumpers for the ACM camera module between the terminals V3/V4 and the terminals b1/c1 remain as they are.

- Supply limits ATLC/NG 670-...

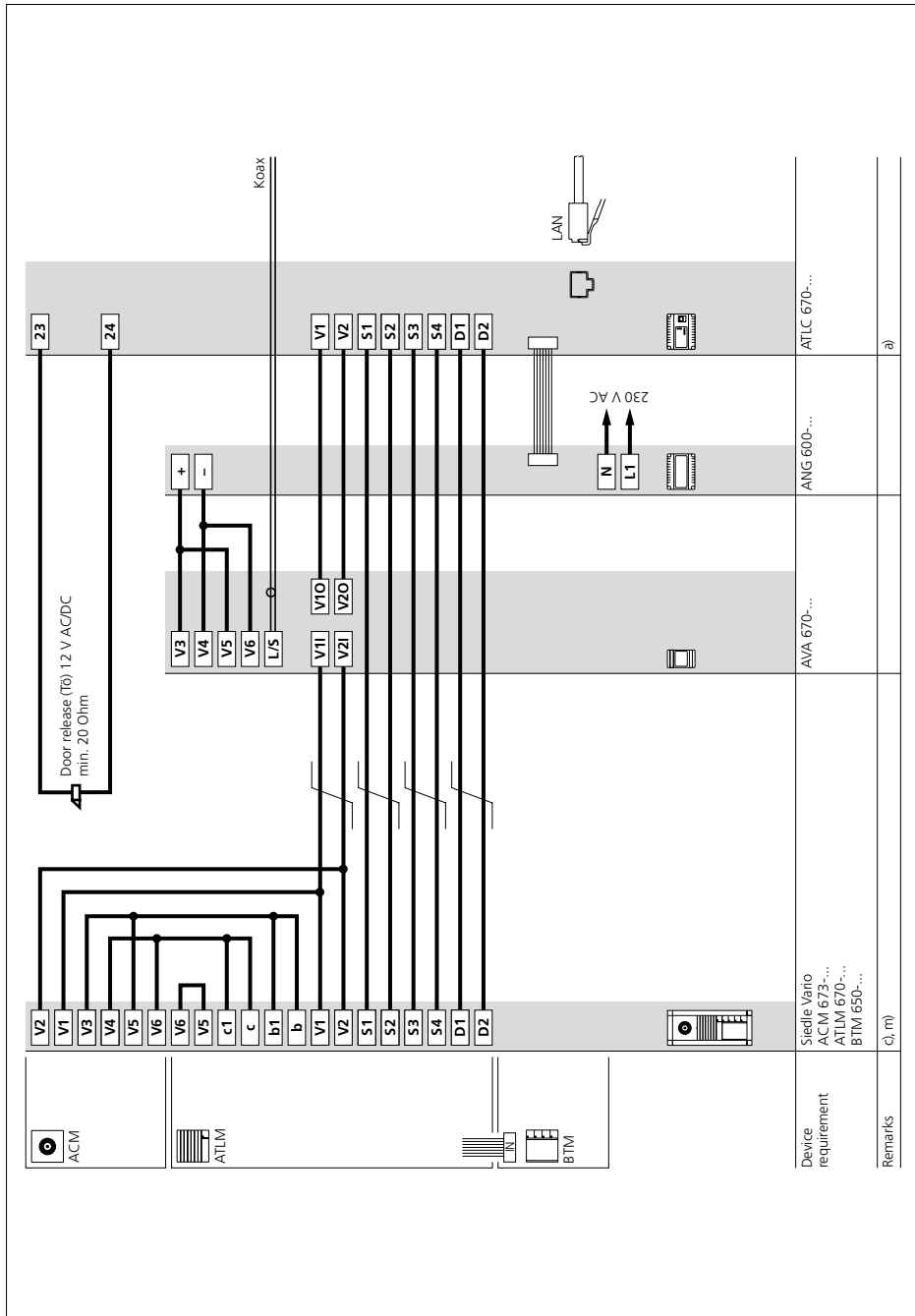
(For detailed information, see page 19, 24)

- The use of an additional power supply is described in a separate diagram.

(For detailed information, see page 76)

10.1 Siedle Vario

Video decoupler (camera in continuous operation)



Notes on the circuit diagram

a) If door releases or gate control systems are fitted and their connected values do not correspond to 12 V AC/DC and min. 20 Ohm, then either switching output 2 (ATLC terminals 13/14 (output)) or switching output 3 (ANG terminals 11/12/14 (output)) can be used as a potential-free door release contact.

To use switching output 2 or 3 as a potential-free door release contact, you must configure the corresponding ATLC switching output in the Access administration interface.

- The use of the potential-free switching outputs is described in separate diagrams.

(For detailed information, see page 72, 74)



c) The camera used must be suitable for continuous operation.

Alternatively, the camera must be used in switching operation. (For detailed information, see page 80)

- In addition, the camera should only be used in continuous operation within its permitted operating parameters (e.g. ambient temperature).

(For detailed information, see page 35)

m) Where there are more than 10 BTM 650-... units, an additional 12 V AC supply, for instance TR 603-..., must be installed due to the current consumption. To use the additional supply, the jumpers on the ATLM are removed from b1/c1 to b/c and the b/c terminals are directly connected to the additional supply. The jumpers for the ACM camera module between the terminals V3/V4 and the terminals b1/c1 remain as they are.

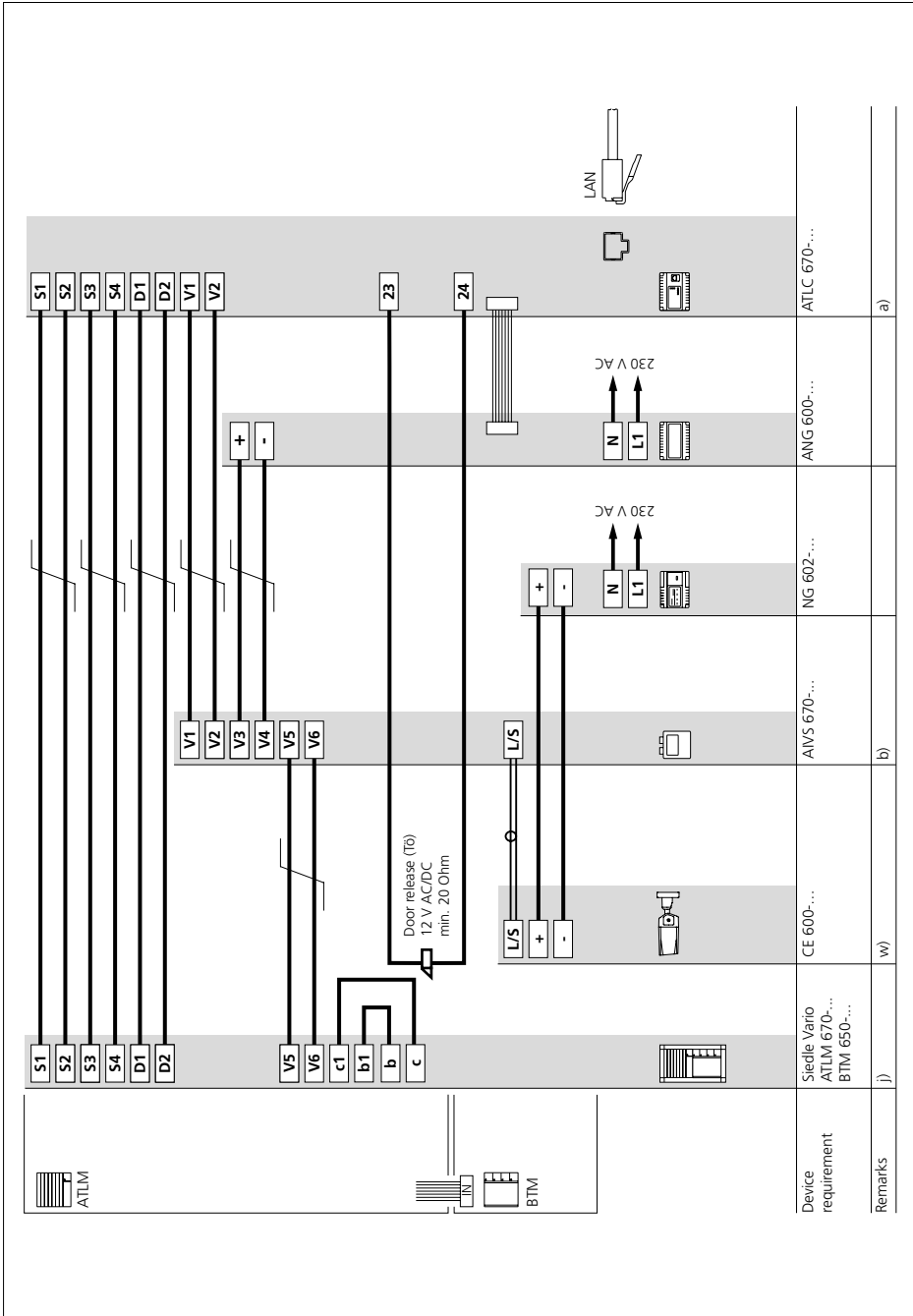
- Supply limits ATLC/NG 670-... (For detailed information, see page 19, 24)

• The use of an additional power supply is described in a separate diagram.

(For detailed information, see page 76)

10.1 Siedle Vario

External camera



Notes on the circuit diagram

a) If door releases or gate control systems are fitted and their connected values do not correspond to 12 V AC/DC and min. 20 Ohm, then either switching output 2 (ATLC terminals 13/14 (output)) or switching output 3 (ANG terminals 11/12/14 (output)) can be used as a potential-free door release contact.

To use switching output 2 or 3 as a potential-free door release contact, you must configure the corresponding ATLC switching output in the Access administration interface.

- The use of the potential-free switching outputs is described in separate diagrams.

(For detailed information, see page 72, 74)

b) Distance between the camera and AIVS 670-... max. 10 m

j) Where there are more than 26 BTM 650-... units, an additional 12 V AC supply, for instance TR 603-..., must be installed due to the current consumption. To use the additional supply, the jumpers on the ATLM are removed from b1/c1 to b/c and the b/c terminals are directly connected to the additional supply.

- Supply limits ATLC/NG 670-...

(For detailed information, see page 19, 24)

• The use of an additional power supply is described in a separate diagram.

(For detailed information, see page 76)



w) Separate power supply required.

Notes on the circuit diagram

a) If door releases or gate control systems are fitted and their connected values do not correspond to 12 V AC/DC and min. 20 Ohm, then either switching output 2 (ATLC terminals 13/14 (output)) or switching output 3 (ANG terminals 11/12/14 (output)) can be used as a potential-free door release contact.

To use switching output 2 or 3 as a potential-free door release contact, you must configure the corresponding ATLC switching output in the Access administration interface.

- The use of the potential-free switching outputs is described in separate diagrams.

(For detailed information, see page 72, 74)

b) Distance between the camera and AIVS 670-... max. 10 m

j) Where there are more than 26 BTM 650-... units, an additional 12 V AC supply, for instance TR 603-..., must be installed due to the current consumption. To use the additional supply, the jumpers on the ATLM are removed from b1/c1 to b/c and the b/c terminals are directly connected to the additional supply.

- Supply limits ATLC/NG 670-...

(For detailed information, see page 19, 24)

• The use of an additional power supply is described in a separate diagram.

(For detailed information, see page 76)

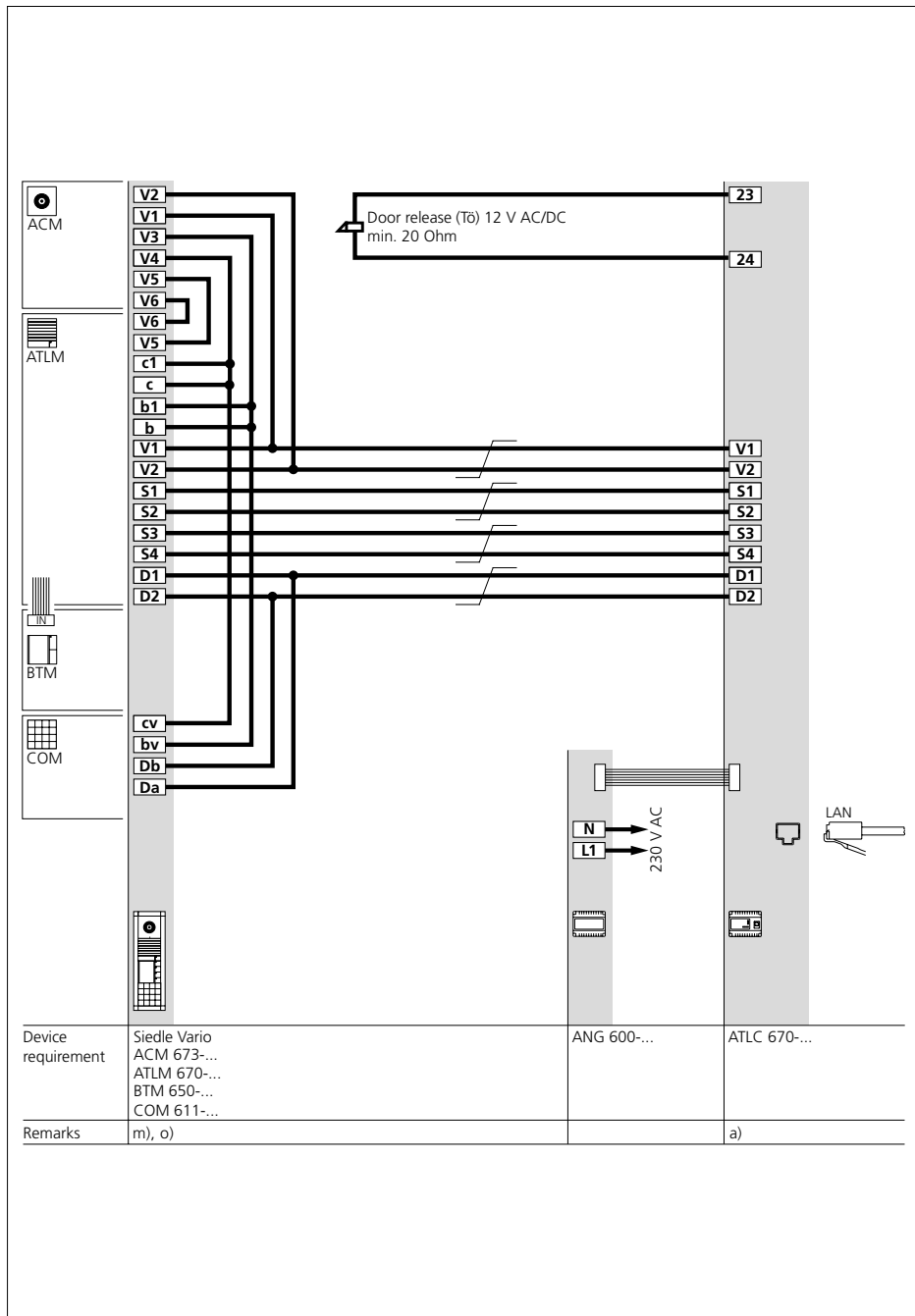


w) Supply limits ATLC/NG 670-...

(For detailed information, see page 19, 24)

10.1 Siedle Vario

Code lock module (Digital call)



Notes on the circuit diagram

a) If door releases or gate control systems are fitted and their connected values do not correspond to 12 V AC/DC and min. 20 Ohm, then either switching output 2 (ATLC terminals 13/14 (output)) or switching output 3 (ANG terminals 11/12/14 (output)) can be used as a potential-free door release contact.

To use switching output 2 or 3 as a potential-free door release contact, you must configure the corresponding ATLC switching output in the Access administration interface.

- The use of the potential-free switching outputs is described in separate diagrams.

(For detailed information, see page 72, 74)

m) Where there are more than 10 BTM 650-... units, an additional 12 V AC supply, for instance TR 603-..., must be installed due to the current consumption. To use the additional supply, the jumpers on the ATLM are removed from b1/c1 to b/c and the b/c terminals are directly connected to the additional supply. The jumpers for the ACM camera module between the terminals V3/V4 and the terminals b1/c1 remain as they are.

- Supply limits ATLC/NG 670-...

(For detailed information, see page 19, 24)

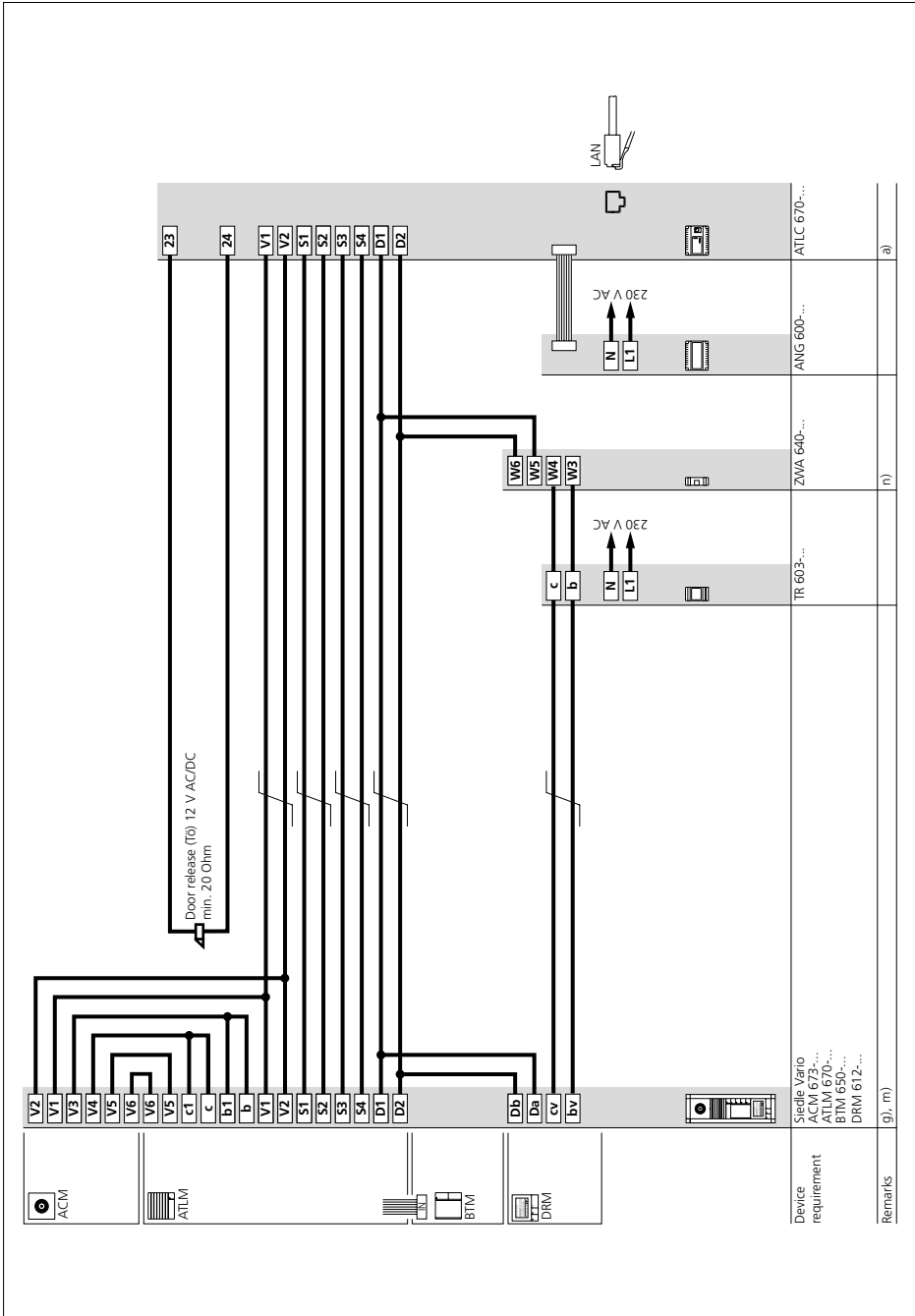
- The use of an additional power supply is described in a separate diagram.

(For detailed information, see page 76)

o) The COM 611-... code lock module is always available for making calls (direct dial via numeric code).

10.1 Siedle Vario

Display call module (Digital call)



Notes on the circuit diagram

The wiring of 2 door stations with a display call module each is described in a separate diagram (For detailed information, see page 92)

a) If door releases or gate control systems are fitted and their connected values do not correspond to 12 V AC/DC and min. 20 Ohm, then either switching output 2 (ATLC terminals 13/14 (output)) or switching output 3 (ANG terminals 11/12/14 (output)) can be used as a potential-free door release contact.

To use switching output 2 or 3 as a potential-free door release contact, you must configure the corresponding ATLC switching output in the Access administration interface.

- The use of the potential-free switching outputs is described in separate diagrams.

(For detailed information, see page 72, 74)

g) To ensure smooth operation, the DRM 612-... display call module must be supplied with its own power supply.

m) Where there are more than 10 BTM 650-... units, an additional 12 V AC supply, for instance TR 603-..., must be installed due to the current consumption. To use the additional supply, the jumpers on the ATLM are removed from b1/c1 to b/c and the b/c terminals are directly connected to the additional supply. The jumpers for the ACM camera module between the terminals V3/V4 and the terminals b1/c1 remain as they are.

- Supply limits ATLC/NG 670-... (For detailed information, see page 19, 24)

- The use of an additional power supply is described in a separate diagram.

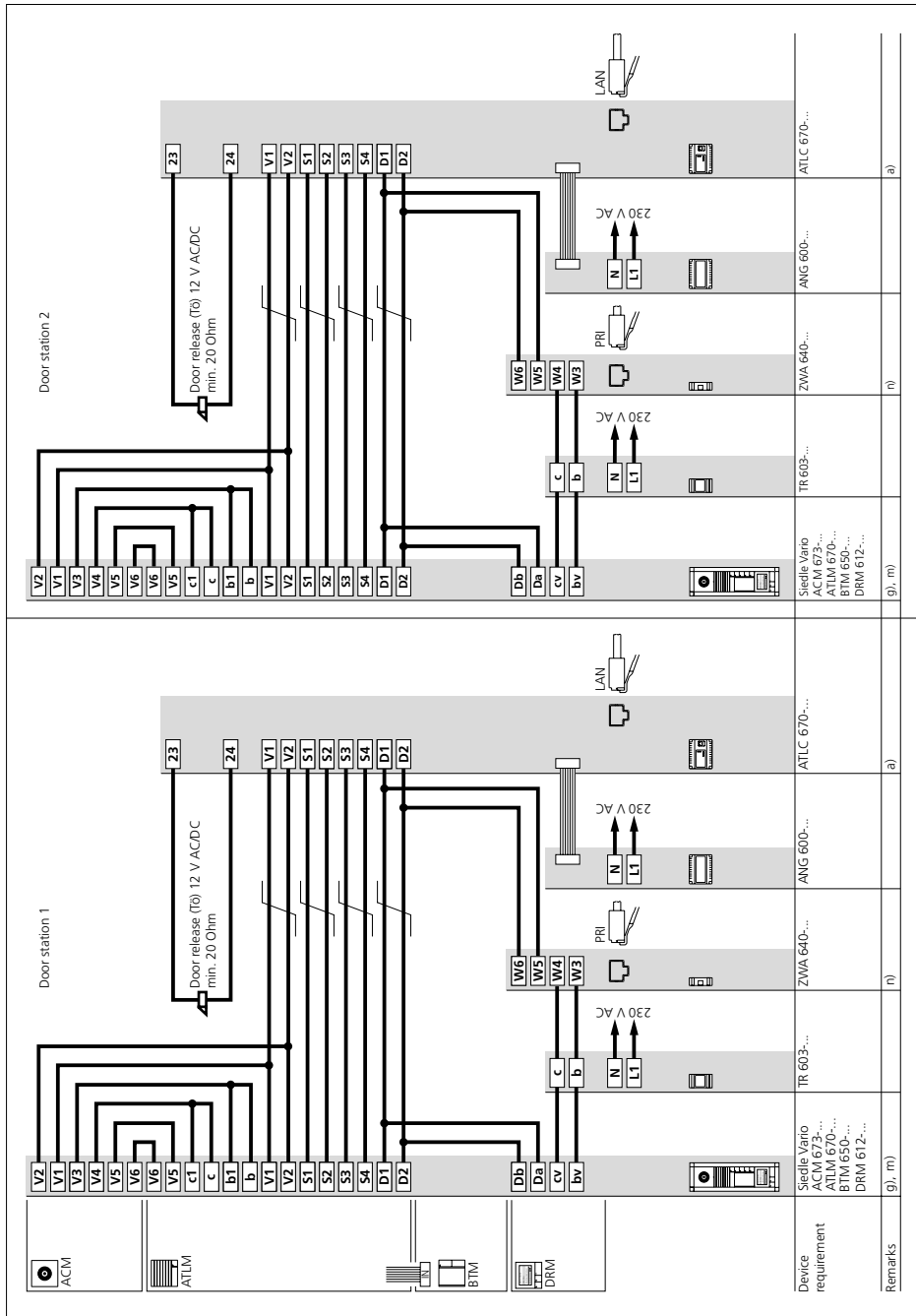
(For detailed information, see page 76)

n) For programming the names, programming software PRS 602-... and programming interface PRI 602-... are required. The names are now entered in the display call module using the PRS 602-...

- The PRI 602-... is supplied via the power supply connected to the ZWA 640-..., (terminals W3/W4).

10.1 Siedle Vario

2 door stations/display call modules (Digital call)



Notes on the circuit diagram

a) If door releases or gate control systems are fitted and their connected values do not correspond to 12 V AC/DC and min. 20 Ohm, then either switching output 2 (ATLC terminals 13/14 (output)) or switching output 3 (ANG terminals 11/12/14 (output)) can be used as a potential-free door release contact.

To use switching output 2 or 3 as a potential-free door release contact, you must configure the corresponding ATLC switching output in the Access administration interface.

- The use of the potential-free switching outputs is described in separate diagrams.

(For detailed information, see page 72, 74)

g) To ensure smooth operation, the DRM 612-... display call module must be supplied with its own power supply.

m) Where there are more than 10 BTM 650-... units, an additional 12 V AC supply, for instance TR 603-..., must be installed due to the current consumption. To use the additional supply, the jumpers on the ATLM are removed from b1/c1 to b/c and the b/c terminals are directly connected to the additional supply. The jumpers for the ACM camera module between the terminals V3/V4 and the terminals b1/c1 remain as they are.

- Supply limits ATLC/NG 670-... (For detailed information, see page 19, 24)

• The use of an additional power supply is described in a separate diagram.

(For detailed information, see page 76)

n) For programming the names, programming software PRS 602-... and programming interface PRI 602-... are required. The names are now entered in the display call module using the PRS 602-...

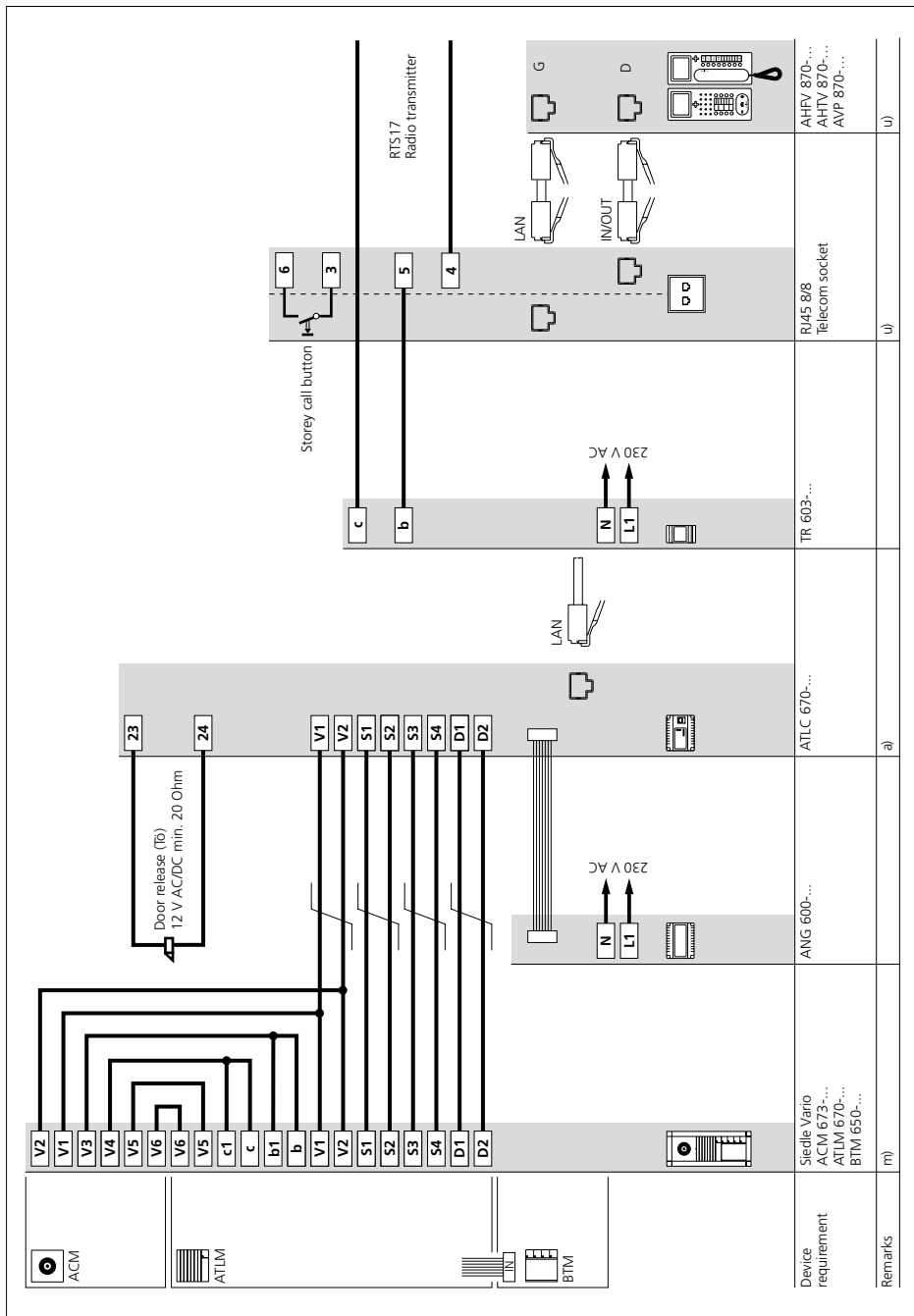
- The PRI 602-... is supplied via the power supply connected to the ZWA 640-..., (terminals W3/W4).



In the case of several door stations, the wiring of one door station must not be connected to the wiring of another door station (bridged).

10.1 Siedle Vario

Radio chime



Notes on the circuit diagram

a) If door releases or gate control systems are fitted and their connected values do not correspond to 12 V AC/DC and min. 20 Ohm, then either switching output 2 (ATLC terminals 13/14 (output)) or switching output 3 (ANG terminals 11/12/14 (output)) can be used as a potential-free door release contact.

To use switching output 2 or 3 as a potential-free door release contact, you must configure the corresponding ATLC switching output in the Access administration interface.

- The use of the potential-free switching outputs is described in separate diagrams.

(For detailed information, see page 72, 74)

m) Where there are more than 10 BTM 650-... units, an additional 12 V AC supply, for instance TR 603-..., must be installed due to the current consumption. To use the additional supply, the jumpers on the ATLM are removed from b1/c1 to b/c and the b/c terminals are directly connected to the additional supply. The jumpers for the ACM camera module between the terminals V3/V4 and the terminals b1/c1 remain as they are.

- Supply limits ATLC/NG 670-...

(For detailed information, see page 19, 24)

- The use of an additional power supply is described in a separate diagram.

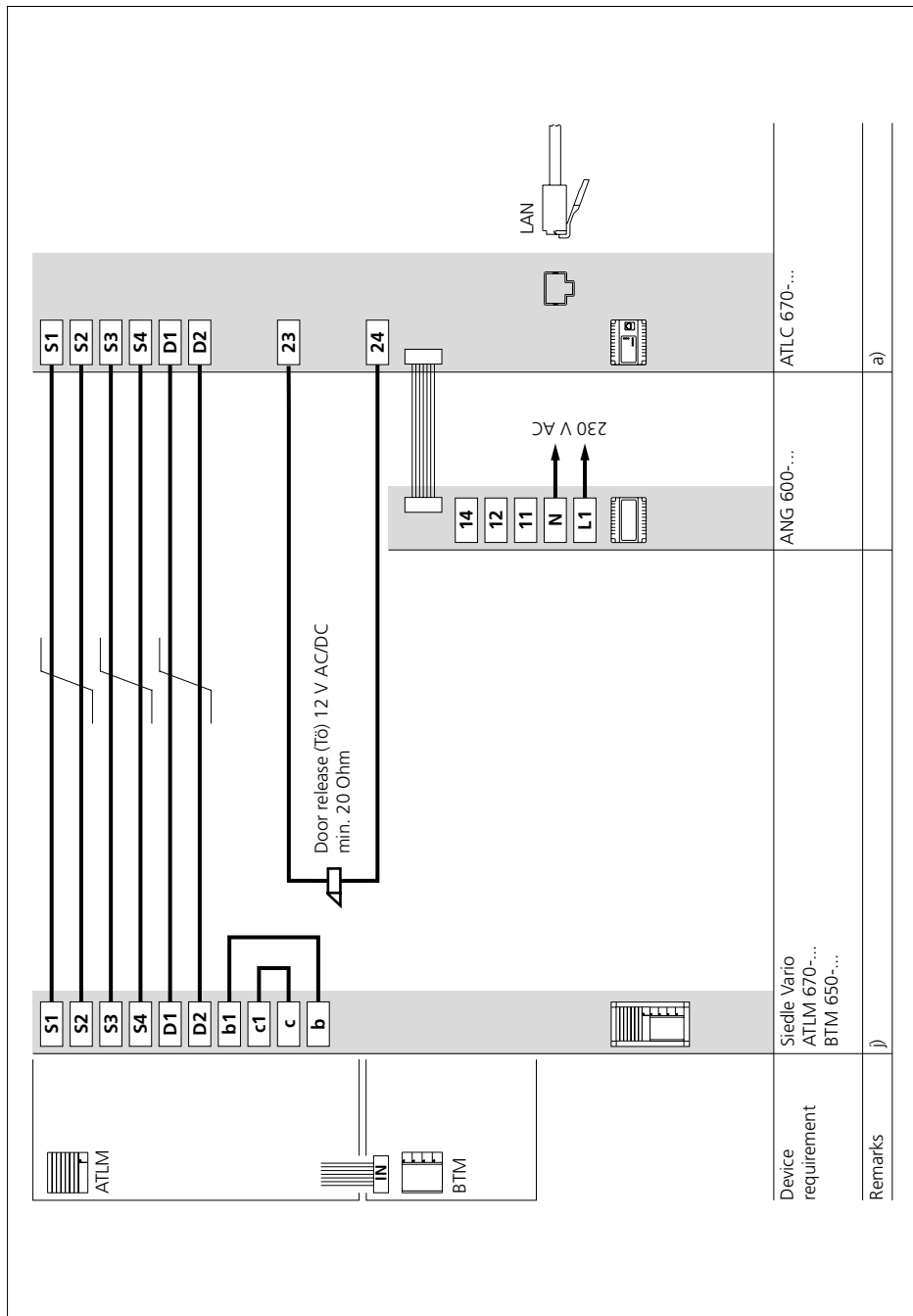
(For detailed information, see page 76)



u) To use the RTS17 radio transmitter, the secondary signal unit auxiliary script must be imported into the Access server and the affected indoor station must be configured. Incoming calls are signalled on the indoor station and on the plug-in socket pager.

10.1 Siedle Vario

Basic circuit diagram (Audio)



Notes on the circuit diagram

a) If door releases or gate control systems are fitted and their connected values do not correspond to 12 V AC/DC and min. 20 Ohm, then either switching output 2 (ATLC terminals 13/14 (output)) or switching output 3 (ANG terminals 11/12/14 (output)) can be used as a potential-free door release contact.

To use switching output 2 or 3 as a potential-free door release contact, you must configure the corresponding ATLC switching output in the Access administration interface.

- The use of the potential-free switching outputs is described in separate diagrams.

(For detailed information, see page 72, 74)

j) Where there are more than 26 BTM 650-... units, an additional 12 V AC supply, for instance TR 603-..., must be installed due to the current consumption. To use the additional supply, the jumpers on the ATLM are removed from b1/c1 to b/c and the b/c terminals are directly connected to the additional supply.

- Supply limits ATLC/NG 670-...

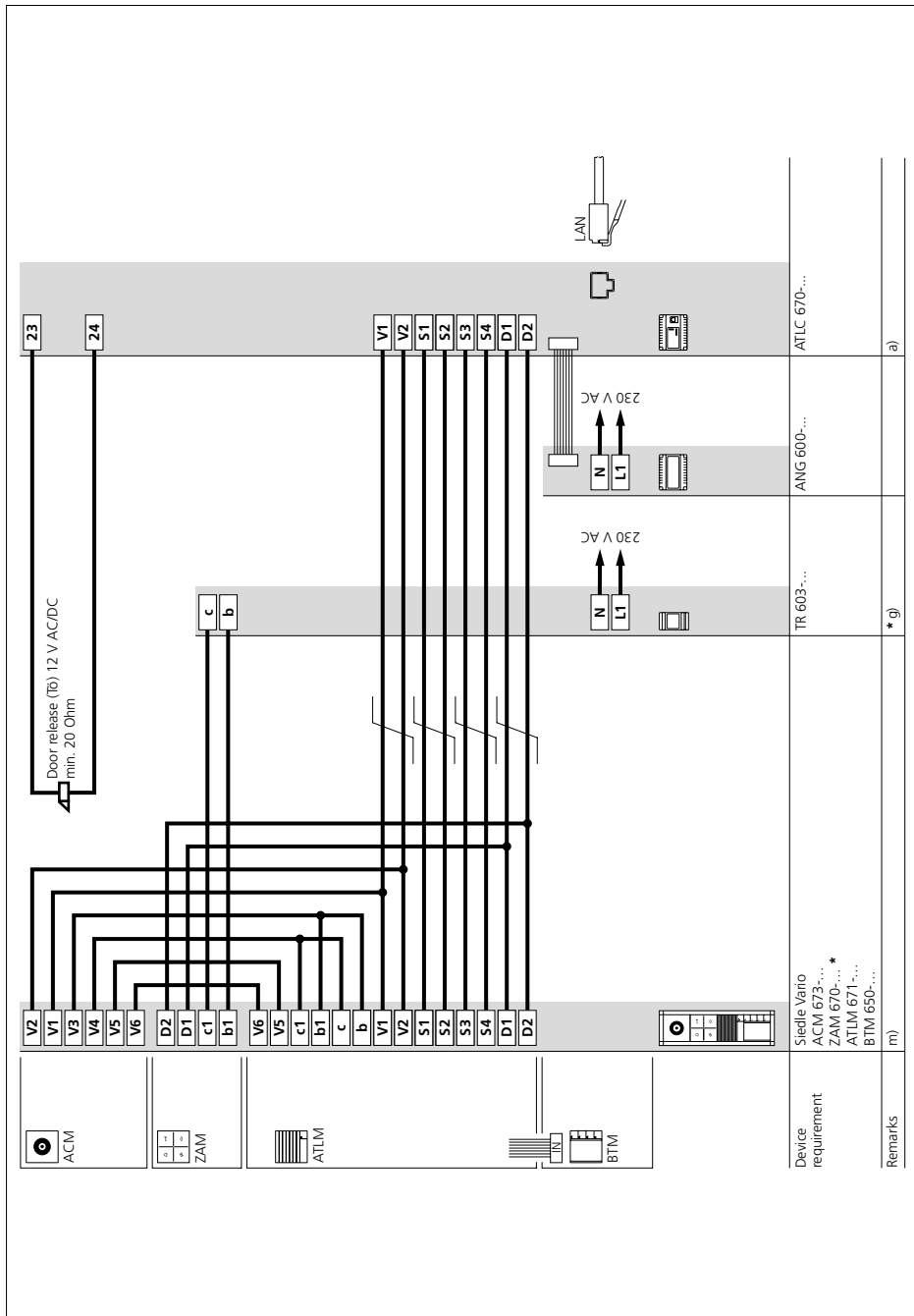
(For detailed information, see page 19, 24)

- The use of an additional power supply is described in a separate diagram.

(For detailed information, see page 76)

10.1 Siedle Vario

Basic circuit diagram (Video) + Status display module



Notes on the circuit diagram

a) If door releases or gate control systems are fitted and their connected values do not correspond to 12 V AC/DC and min. 20 Ohm, then either switching output 2 (ATLC terminals 13/14 (output)) or switching output 3 (ANG terminals 11/12/14 (output)) can be used as a potential-free door release contact.

To use switching output 2 or 3 as a potential-free door release contact, you must configure the corresponding ATLC switching output in the Access administration interface.

- The use of the potential-free switching outputs is described in separate diagrams.

(For detailed information, see page 72, 74)

g) ZAM 670-0: Operation via the door station's internal power supply is not possible. A separate power supply is required.

- Supply limits ATLC/NG 670-...

(For detailed information, see page 19, 20, 24)



m) Where there are more than 1 BTM 650-... units, an additional 12 V AC supply, for instance TR 603-..., must be installed due to the current consumption. To use the additional supply, the jumpers on the ATLM are removed from b1/c1 to b/c and the b/c terminals are directly connected to the additional supply. The jumpers for the ACM camera module between the terminals V3/V4 and the terminals b1/c1 remain as they are.

- Supply limits ATLC/NG 670-...

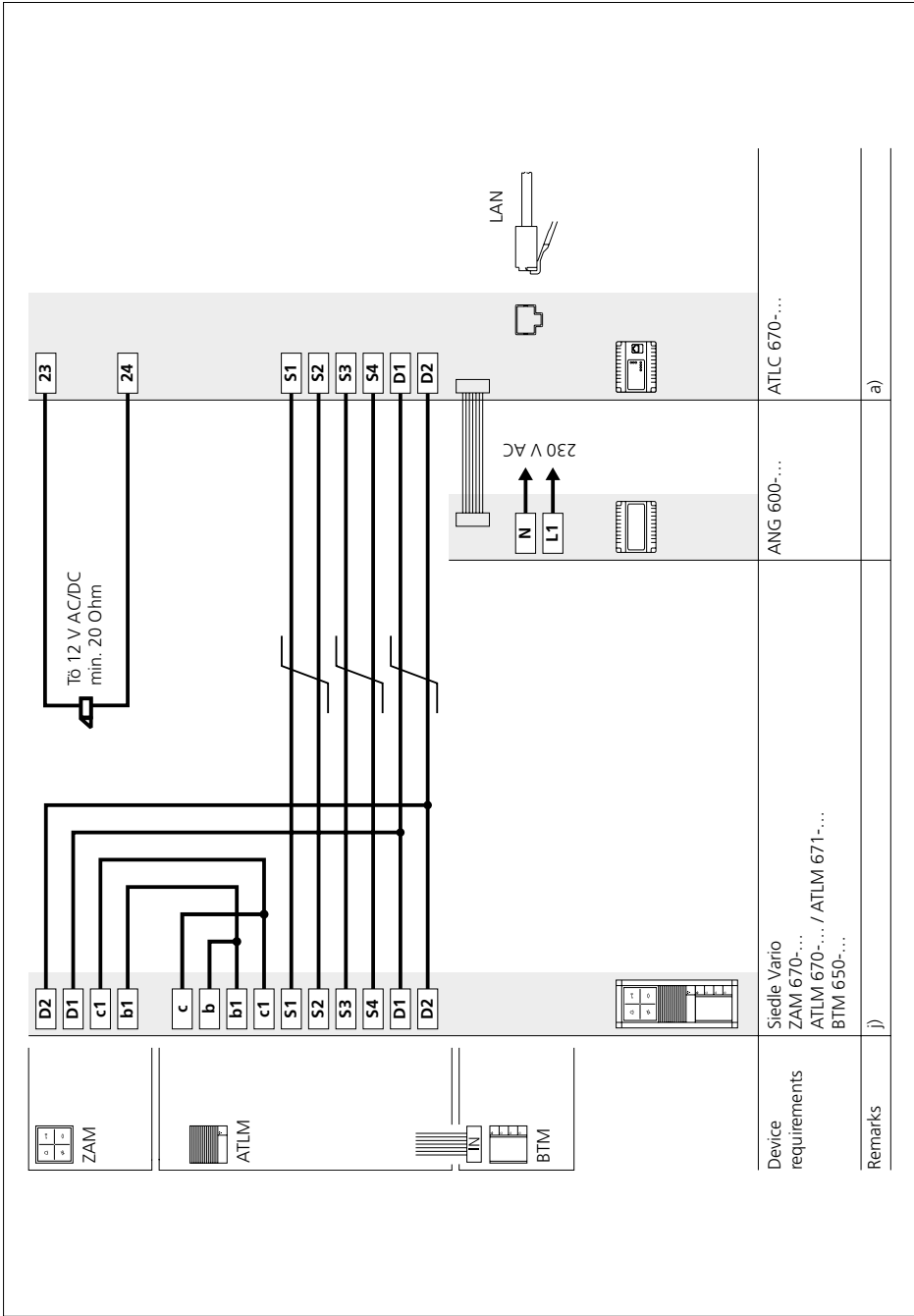
(For detailed information, see page 19, 20, 24)

- The use of an additional power supply is described in a separate diagram.

(For detailed information, see page 76)

10.1 Siedle Vario

Basic circuit diagram (Audio) + Status display module



Notes on the circuit diagram

a) If door releases or gate control systems are fitted and their connected values do not correspond to 12 V AC/DC and min. 20 Ohm, then either switching output 2 (ATLC terminals 13/14 (output)) or switching output 3 (ANG terminals 11/12/14 (output)) can be used as a potential-free door release contact.

To use switching output 2 or 3 as a potential-free door release contact, you must configure the corresponding ATLC switching output in the Access administration interface.

- The use of the potential-free switching outputs is described in separate diagrams.

(For detailed information, see page 72, 74)

j) Where there are more than 18 BTM 650-... units (ATLM 670-...) / 2 BTM 650-... units (ATLM 671-...), an additional 12 V AC supply, for instance TR 603-..., must be installed due to the current consumption. To use the additional supply, the jumpers on the ATLM are removed from b1/c1 to b/c and the b/c terminals are directly connected to the additional supply.

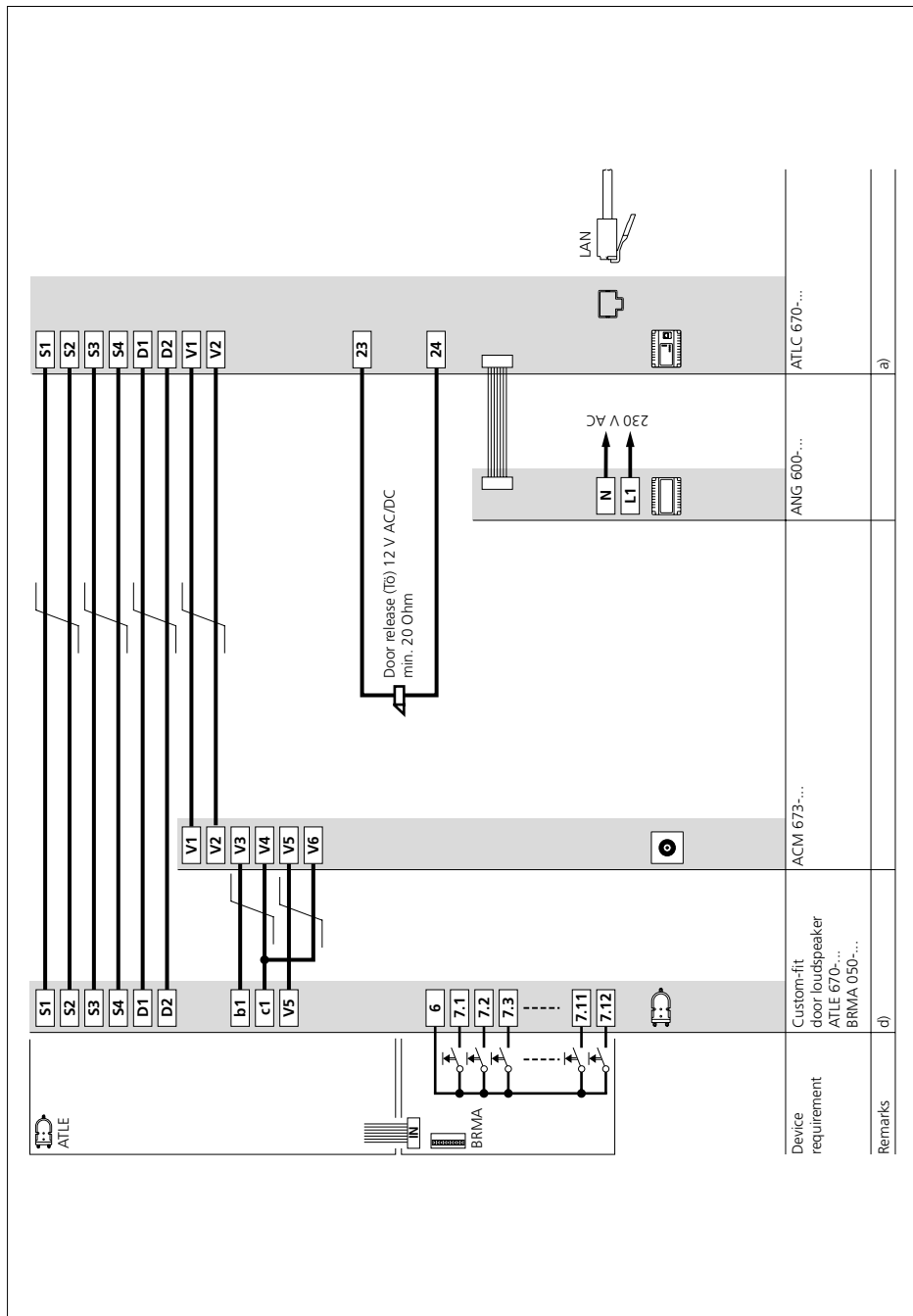
- Supply limits ATLC/NG 670-...
- (For detailed information, see page 19, 20, 24)

• The use of an additional power supply is described in a separate diagram.

(For detailed information, see page 76)

10.2 Access custom-fit door loudspeaker

Access camera module



Notes on the circuit diagram

a) If door releases or gate control systems are fitted and their connected values do not correspond to 12 V AC/DC and min. 20 Ohm, then either switching output 2 (ATLC terminals 13/14 (output)) or switching output 3 (ANG terminals 11/12/14 (output)) can be used as a potential-free door release contact.

To use switching output 2 or 3 as a potential-free door release contact, you must configure the corresponding ATLC switching output in the Access administration interface.

- The use of the potential-free switching outputs is described in separate diagrams.

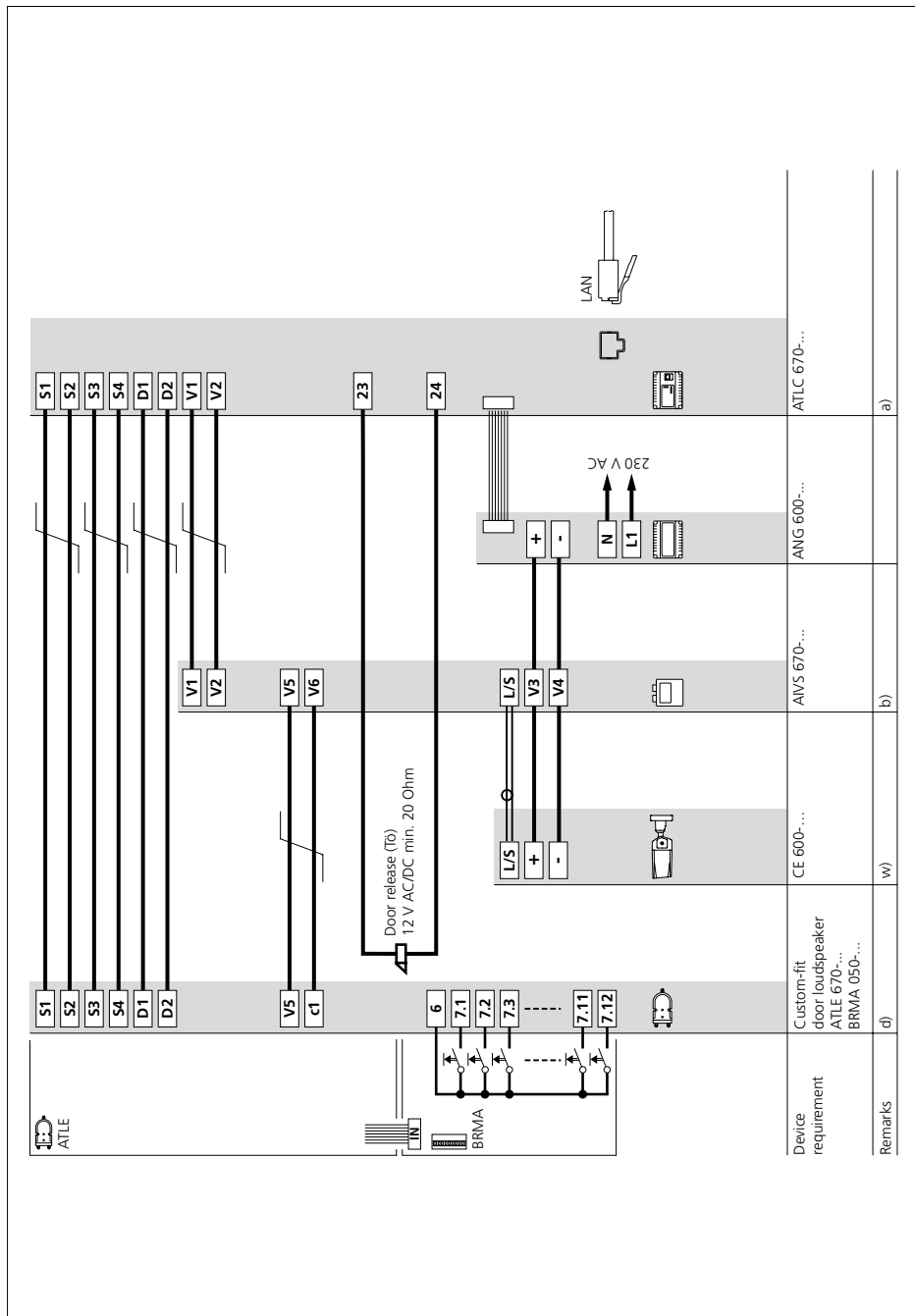
(For detailed information, see page 72, 74)

d) A maximum of 12 call buttons can be connected at one BRMA 050-...

The maximum configuration is 16 BRMA 050-... units/192 buttons.

10.2 Access custom-fit door loudspeaker

External camera



Notes on the circuit diagram

a) If door releases or gate control systems are fitted and their connected values do not correspond to 12 V AC/DC and min. 20 Ohm, then either switching output 2 (ATLC terminals 13/14 (output)) or switching output 3 (ANG terminals 11/12/14 (output)) can be used as a potential-free door release contact.

To use switching output 2 or 3 as a potential-free door release contact, you must configure the corresponding ATLC switching output in the Access administration interface.

- The use of the potential-free switching outputs is described in separate diagrams.

(For detailed information, see page 72, 74)

b) Distance between the camera and AIVS 670-... max. 10 m

d) A maximum of 12 call buttons can be connected at one BRMA 050-...

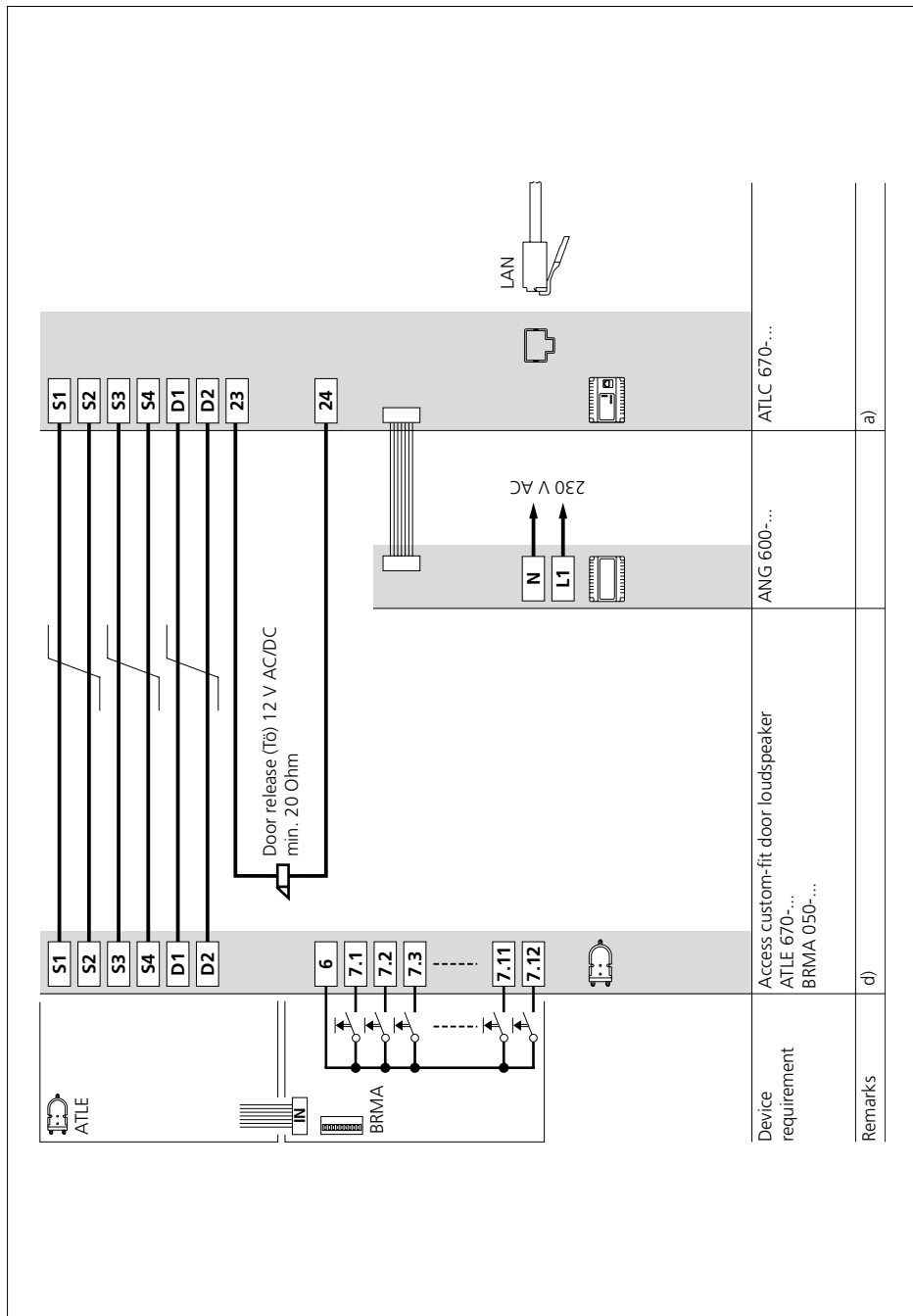
The maximum configuration is 16 BRMA 050-... units/192 buttons.



w) Supply limits ATLC/NG 670-...
(For detailed information, see page 19, 24)

10.2 Access custom-fit door loudspeaker

Basic circuit diagram (Audio)



Device requirement
 Access custom-fit door loudspeaker
 ATLE 670-...
 BRMA 050-...

ATLC 670-...

ANG 600-...

Remarks

d)

a)

Notes on the circuit diagram

a) If door releases or gate control systems are fitted and their connected values do not correspond to 12 V AC/DC and min. 20 Ohm, then either switching output 2 (ATLC terminals 13/14 (output)) or switching output 3 (ANG terminals 11/12/14 (output)) can be used as a potential-free door release contact.

To use switching output 2 or 3 as a potential-free door release contact, you must configure the corresponding ATLC switching output in the Access administration interface.

- The use of the potential-free switching outputs is described in separate diagrams.

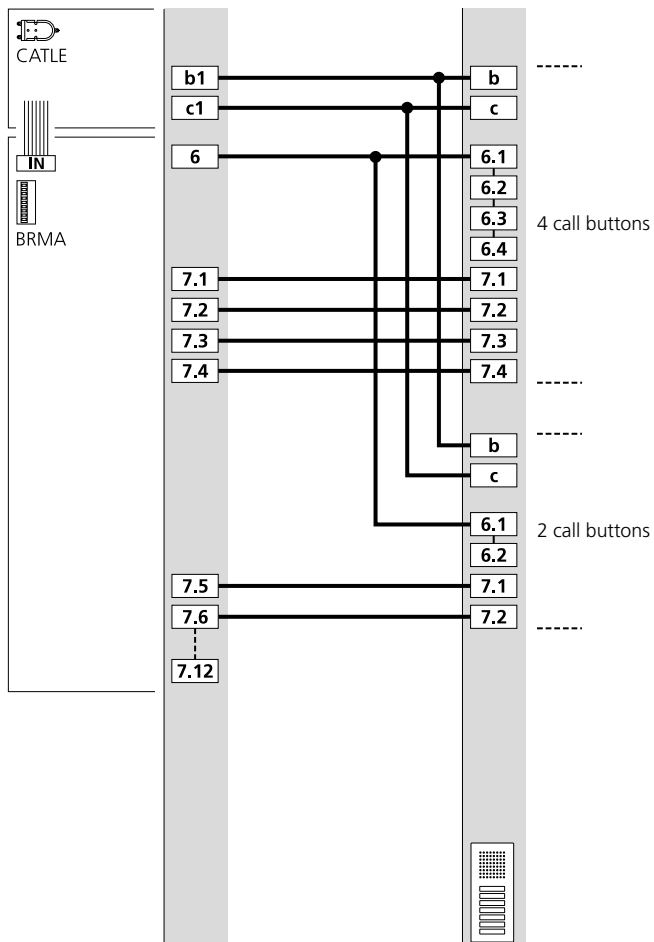
(For detailed information, see page 72, 74)

d) A maximum of 12 call buttons can be connected at one BRMA 050-...

The maximum configuration is 16 BRMA 050-... units/192 buttons.

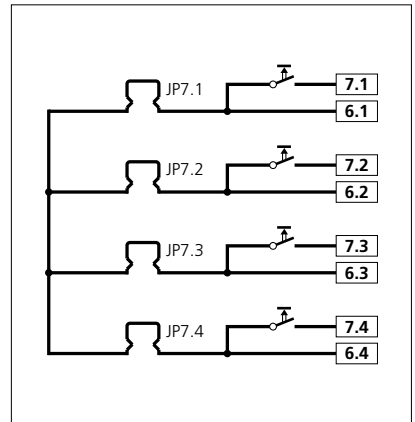
10.3 Siedle Classic

Wiring diagram for call buttons



Device requirement	Siedle Classic CATLE 670-... BRMA 050-...	Siedle Classic Call buttons
Remarks	l), q)	y)

Call button block	Button	Terminal designations for the button		Button back-lighting
With 1 button	1	6	7	b, c
With 2 buttons	1	6.1	7.1	b, c
	2	6.2	7.2	
With 3 buttons	1	6.1	7.1	b, c
	2	6.2	7.2	
	3	6.3	7.3	
With 4 buttons	1	6.1	7.1	b, c
	2	6.2	7.2	
	3	6.3	7.3	
	4	6.4	7.4	



Notes on the circuit diagram

l) The internal wiring of the Classic door station is completed on site by the customer.

q) Where there are more than 20 backlit call buttons, an additional 12 V AC supply, for instance TR 603-..., must be installed due to the current consumption. To use the additional supply, the jumpers between the CATLE and the call buttons from b1/c1 to b/c are removed and the b/c terminals are directly connected to the additional supply. The jumpers from the ACM camera module to CATLE between the terminals V3/V4 and the terminals b1/c1 remain as they are.

- Supply limits ATLC/NG 670-... (For detailed information, see page 19)

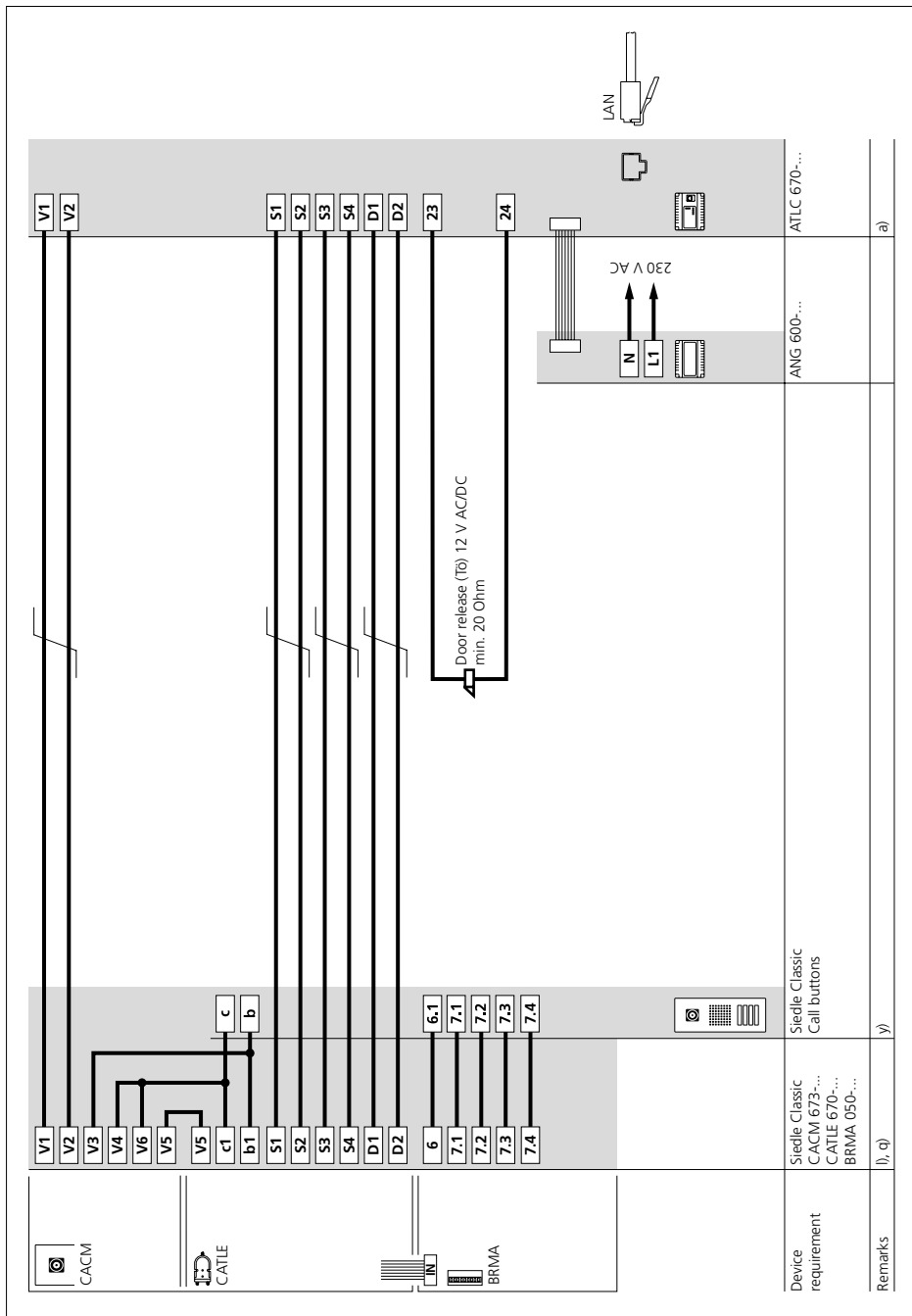
y) The circuit diagram shows an exemplary connection of call buttons with the BRMA.

- In the case of Siedle Classic, the call button blocks come in designs with 1, 2, 3 and 4 call buttons. On call button blocks with more than one call button, all terminals 6... are connected to one another (see table and image). If a button is to be potential-free, the corresponding JP... bridge must be disconnected on the PCB of the call button block.
- If more than 4 call buttons are required, the call button blocks are cascaded accordingly (e.g. 7 call buttons = call button block with 4 and 3 call buttons).
- If there is more than one call button block, then at least one of the terminal 6... must be connected straight through between all call button blocks.

Example: In the case of 7 call buttons, terminal 6.1 of the first call button block is bridged with terminal 6.1 of the second call button block (see wiring diagram). Terminals 6... are bridged with one another on each call button block and do not need to be additionally wired/bridged (exception: a button is used independently as a potential-free contact and the corresponding jumpers have been disconnected).

10.3 Siedle Classic

Basic circuit diagram (Video)



Notes on the circuit diagram

a) If door releases or gate control systems are fitted and their connected values do not correspond to 12 V AC/DC and min. 20 Ohm, then either switching output 2 (ATLC terminals 13/14 (output)) or switching output 3 (ANG terminals 11/12/14 (output)) can be used as a potential-free door release contact.

To use switching output 2 or 3 as a potential-free door release contact, you must configure the corresponding ATLC switching output in the Access administration interface.

- The use of the potential-free switching outputs is described in separate diagrams.

(For detailed information, see page 72, 74)

l) The internal wiring of the Classic door station is completed on site by the customer.

- The connection of the call button modules is described in a separate diagram. (For detailed information, see page 108)

q) Where there are more than 20 backlit call buttons, an additional 12 V AC supply, for instance TR 603-..., must be installed due to the current consumption. To use the additional supply, the jumpers between the CATLE and the call buttons from b1/c1 to b/c are removed and the b/c terminals are directly connected to the additional supply. The jumpers from the ACM camera module to CATLE between the terminals V3/V4 and the terminals b1/c1 remain as they are.

- Supply limits ATLC/NG 670-...
- (For detailed information, see page 19, 24)

• The use of an additional power supply is described in a separate diagram.

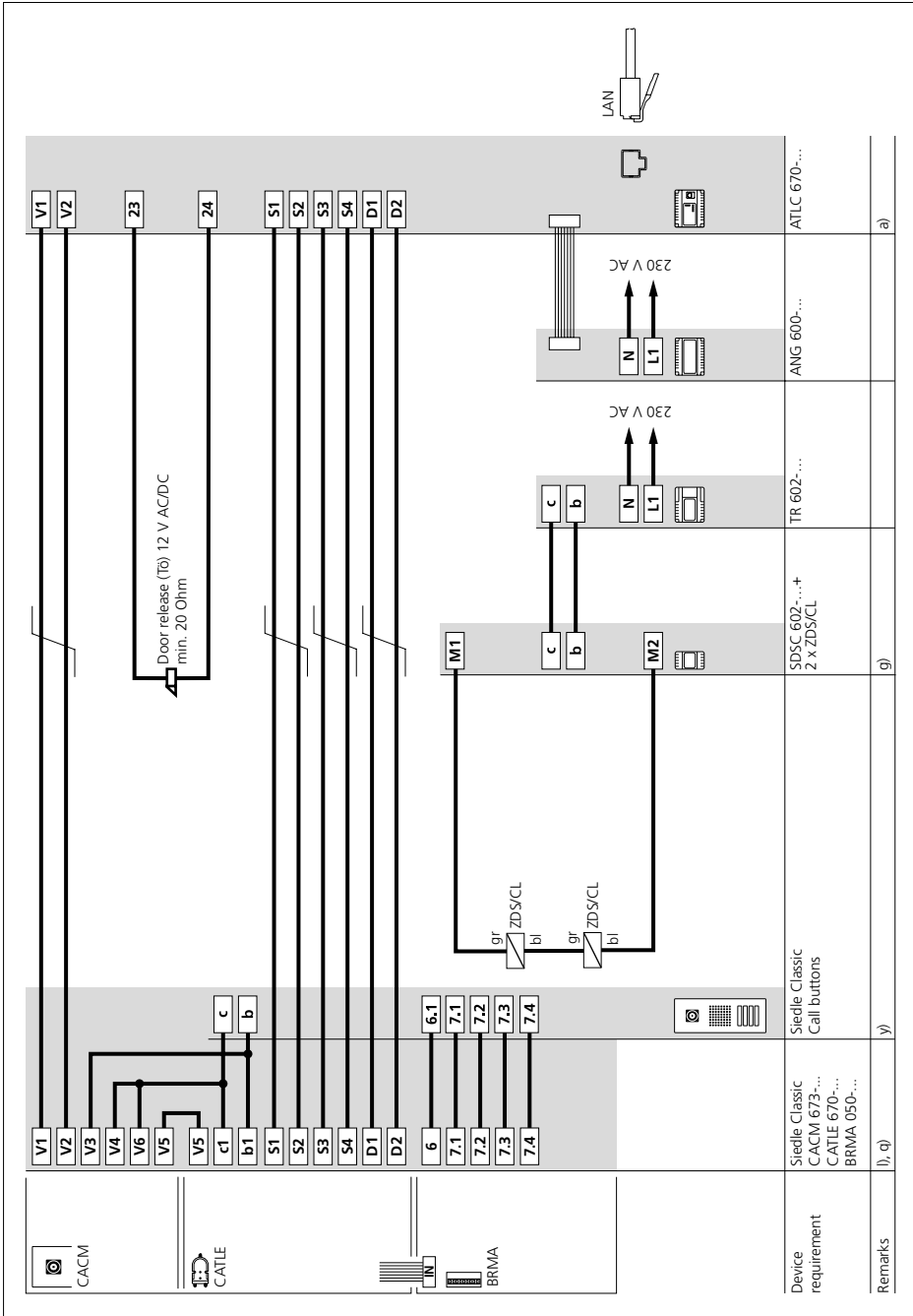
(For detailed information, see page 76)

y) The circuit diagram shows an exemplary connection of call buttons with the BRMA.

- (For detailed information, see page 109)

10.3 Siedle Classic

Pilfer safeguard



Notes on the circuit diagram

a) If door releases or gate control systems are fitted and their connected values do not correspond to 12 V AC/DC and min. 20 Ohm, then either switching output 2 (ATLC terminals 13/14 (output)) or switching output 3 (ANG terminals 11/12/14 (output)) can be used as a potential-free door release contact.

To use switching output 2 or 3 as a potential-free door release contact, you must configure the corresponding ATLC switching output in the Access administration interface.

- The use of the potential-free switching outputs is described in separate diagrams. (For detailed information, see page 72, 74)

g) Operation via the door station's internal power supply is not possible. A separate power supply is required.

l) The internal wiring of the Classic door station is completed on site by the customer.

- The connection of the call button modules is described in a separate diagram. (For detailed information, see page 108)

q) Where there are more than 20 backlit call buttons, an additional 12 V AC supply, for instance TR 603-..., must be installed due to the current consumption. To use the additional supply, the jumpers between the CATLE and the call buttons from b1/c1 to b/c are removed and the b/c terminals are directly connected to the additional supply. The jumpers from the ACM camera module to CATLE between the terminals V3/V4 and the terminals b1/c1 remain as they are.

- Supply limits ATLC/NG 670-... (For detailed information, see page 19, 24)

- The use of an additional power supply is described in a separate diagram.

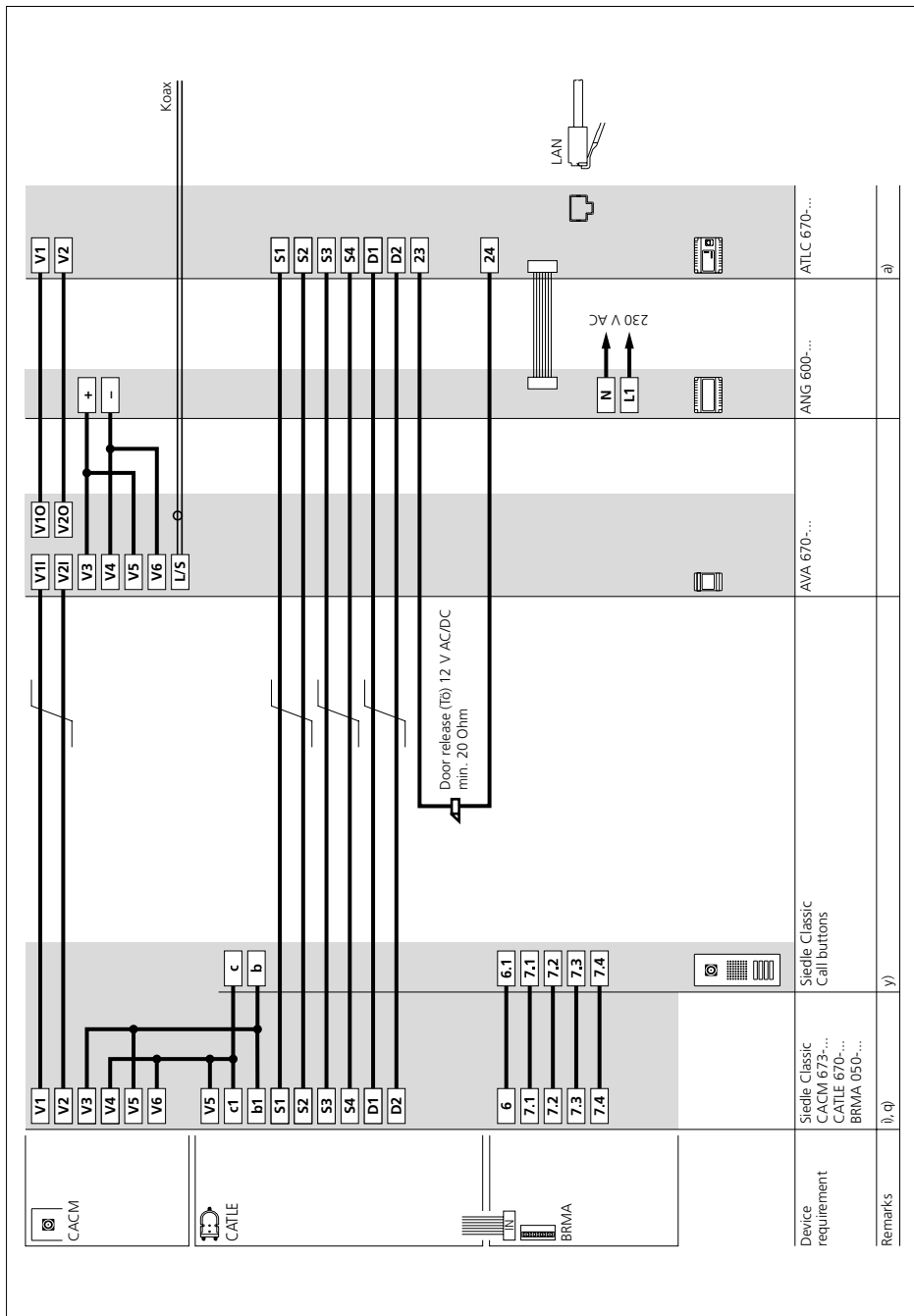
(For detailed information, see page 76)

y) The circuit diagram shows an exemplary connection of call buttons with the BRMA.

- (For detailed information, see page 109)

10.3 Siedle Classic

Video decoupler (camera in continuous operation)



Notes on the circuit diagram

a) If door releases or gate control systems are fitted and their connected values do not correspond to 12 V AC/DC and min. 20 Ohm, then either switching output 2 (ATLC terminals 13/14 (output)) or switching output 3 (ANG terminals 11/12/14 (output)) can be used as a potential-free door release contact.

To use switching output 2 or 3 as a potential-free door release contact, you must configure the corresponding ATLC switching output in the Access administration interface.

- The use of the potential-free switching outputs is described in separate diagrams.

(For detailed information, see page 72, 74)



i) The camera used must be suitable for continuous operation.

Alternatively, the camera must be used in switching operation.

- In addition, the camera should only be used in continuous operation within its permitted operating parameters (e.g. ambient temperature).

(For detailed information, see page 35)

q) Where there are more than 20 backlit call buttons, an additional 12 V AC supply, for instance TR 603-..., must be installed due to the current consumption. To use the additional supply, the jumpers between the CATLE and the call buttons from b1/c1 to b/c are removed and the b/c terminals are directly connected to the additional supply. The jumpers from the ACM camera module to CATLE between the terminals V3/V4 and the terminals b1/c1 remain as they are.

- Supply limits ATLC/NG 670-... (For detailed information, see page 19, 24)

- The use of an additional power supply is described in a separate diagram.

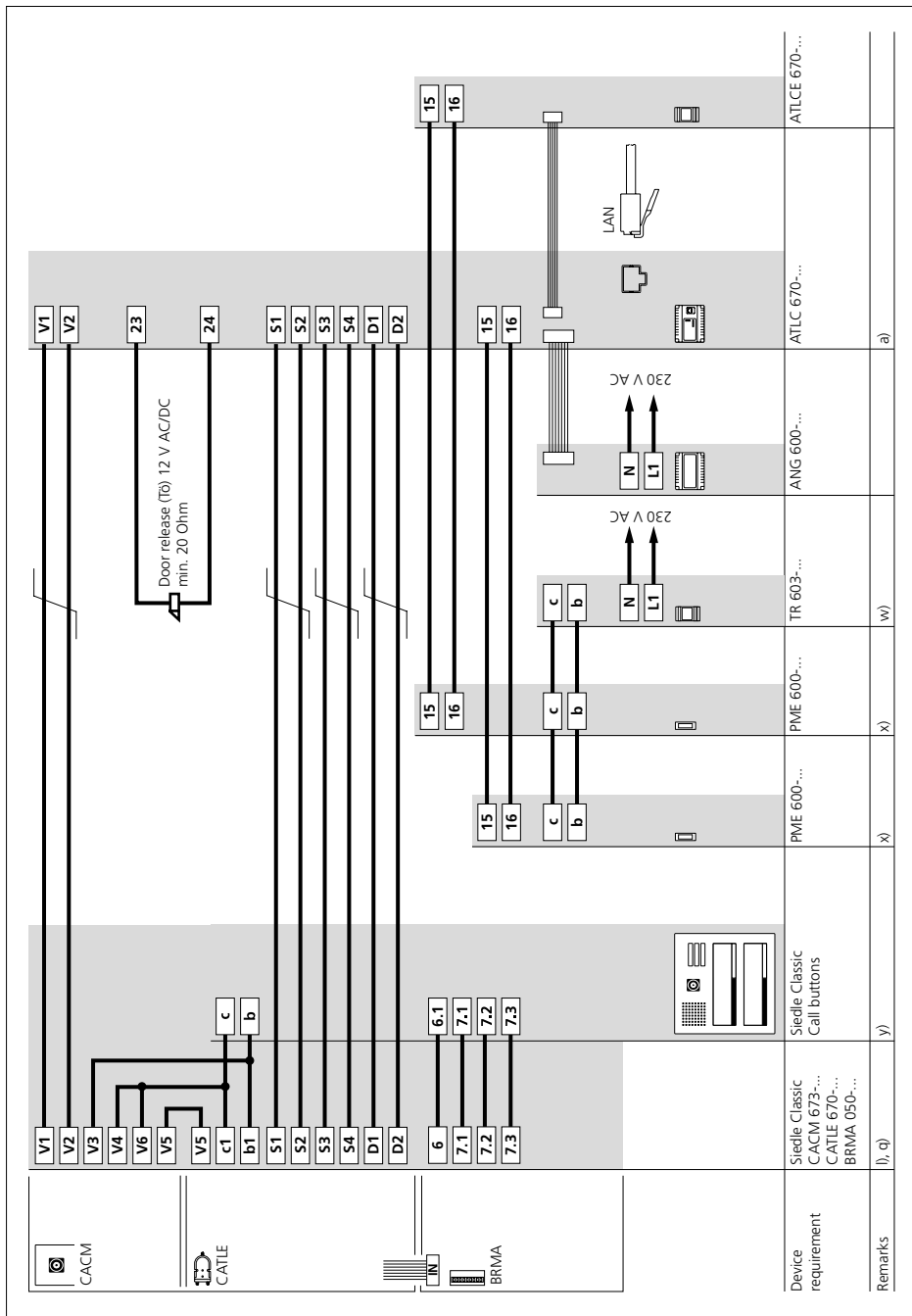
(Examples: For detailed information, see page 76)

y) The circuit diagram shows an exemplary connection of call buttons with the BRMA.

- (For detailed information, see page 109)

10.3 Siedle Classic

2 mail notification systems



Notes on the circuit diagram

a) If door releases or gate control systems are fitted and their connected values do not correspond to 12 V AC/DC and min. 20 Ohm, then either switching output 2 (ATLC terminals 13/14 (output)) or switching output 3 (ANG terminals 11/12/14 (output)) can be used as a potential-free door release contact.

To use switching output 2 or 3 as a potential-free door release contact, you must configure the corresponding ATLC switching output in the Access administration interface.

The use of the potential-free switching outputs is described in separate diagrams.

(For detailed information, see page 72, 74)

l) The internal wiring of the Classic door station is completed on site by the customer.

The connection of the call button modules is described in a separate diagram. (For detailed information, see page 108)

q) Where there are more than 20 backlit call buttons, an additional 12 V AC supply, for instance TR 603-..., must be installed due to the current consumption. To use the additional supply, the jumpers between the CATLE and the call buttons from b1/c1 to b/c are removed and the b/c terminals are directly connected to the additional supply. The jumpers from the ACM camera module to CATLE between the terminals V3/V4 and the terminals b1/c1 remain as they are.

- Supply limits ATLC/NG 670-...

(For detailed information, see page 19, 24)

- The use of an additional power supply is described in a separate diagram.

(For detailed information, see page 76)



w) Separate power supply required.

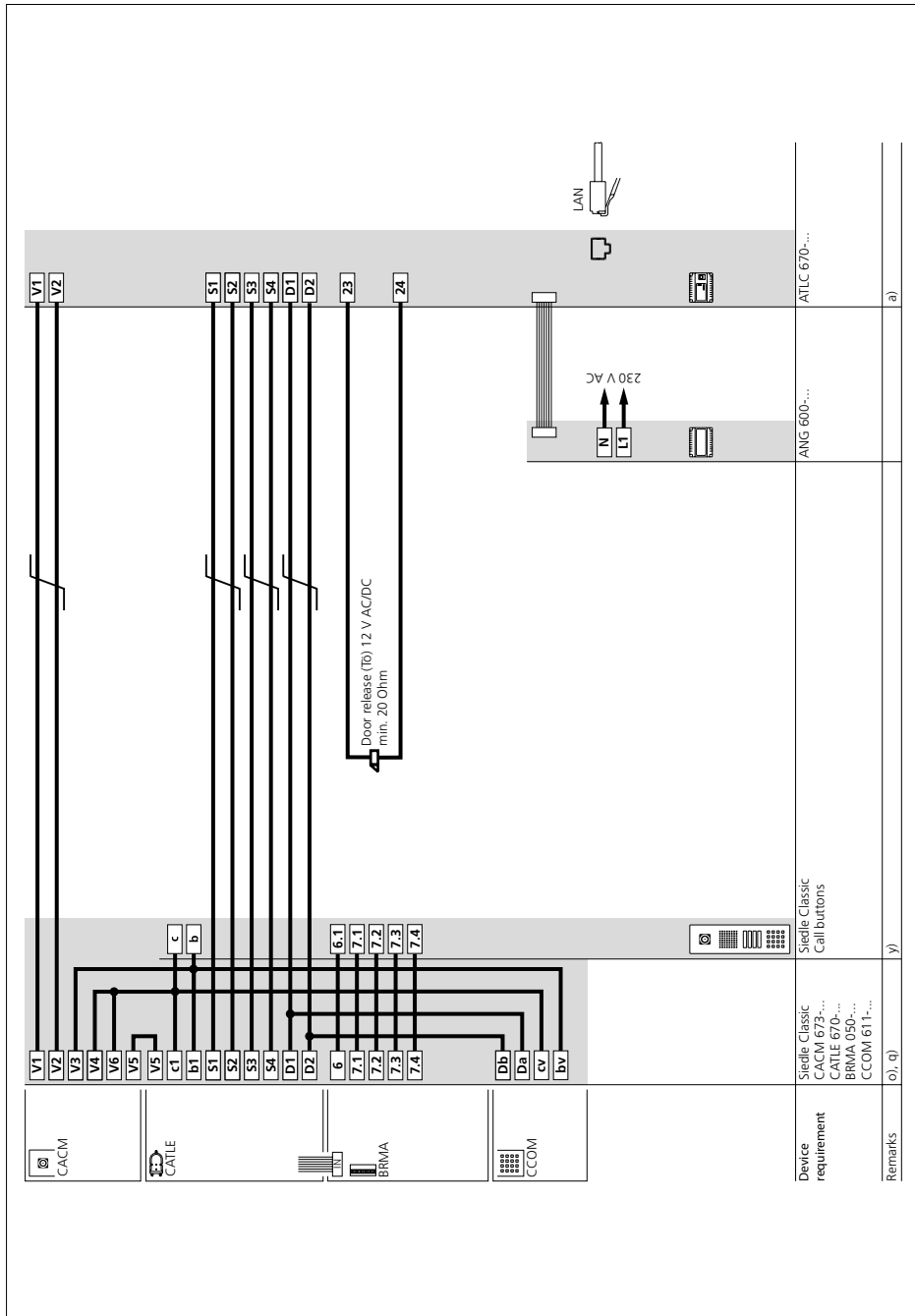
x) A separate potential-free switching input is required for each mail notification system. You must configure each switching input in the Access administration interface. You can run up to 7 mail notification systems with the fully extended system (1 ATLC and 3 ATLCs).

y) The circuit diagram shows an exemplary connection of call buttons with the BRMA.

- (For detailed information, see page 109)

10.3 Siedle Classic

Code lock module (Digital call)



Notes on the circuit diagram

a) If door releases or gate control systems are fitted and their connected values do not correspond to 12 V AC/DC and min. 20 Ohm, then either switching output 2 (ATLC terminals 13/14 (output)) or switching output 3 (ANG terminals 11/12/14 (output)) can be used as a potential-free door release contact.

To use switching output 2 or 3 as a potential-free door release contact, you must configure the corresponding ATLC switching output in the Access administration interface.

The use of the potential-free switching outputs is described in separate diagrams.

(For detailed information, see page 72, 74)

o) The COM 611-... code lock module is always available for making calls (direct dial via numeric code).

Together with the EC 602-... entrance controller, additional control functions (e.g. access control) can be carried out for this door station.

q) Where there are more than 20 backlit call buttons, an additional 12 V AC supply, for instance TR 603-..., must be installed due to the current consumption. To use the additional supply, the jumpers between the CATLE and the call buttons from b1/c1 to b/c are removed and the b/c terminals are directly connected to the additional supply. The jumpers from the ACM camera module to CATLE between the terminals V3/V4 and the terminals b1/c1 remain as they are.

- Supply limits ATLC/NG 670-... (For detailed information, see page 19, 24)

- The use of an additional power supply is described in a separate diagram.

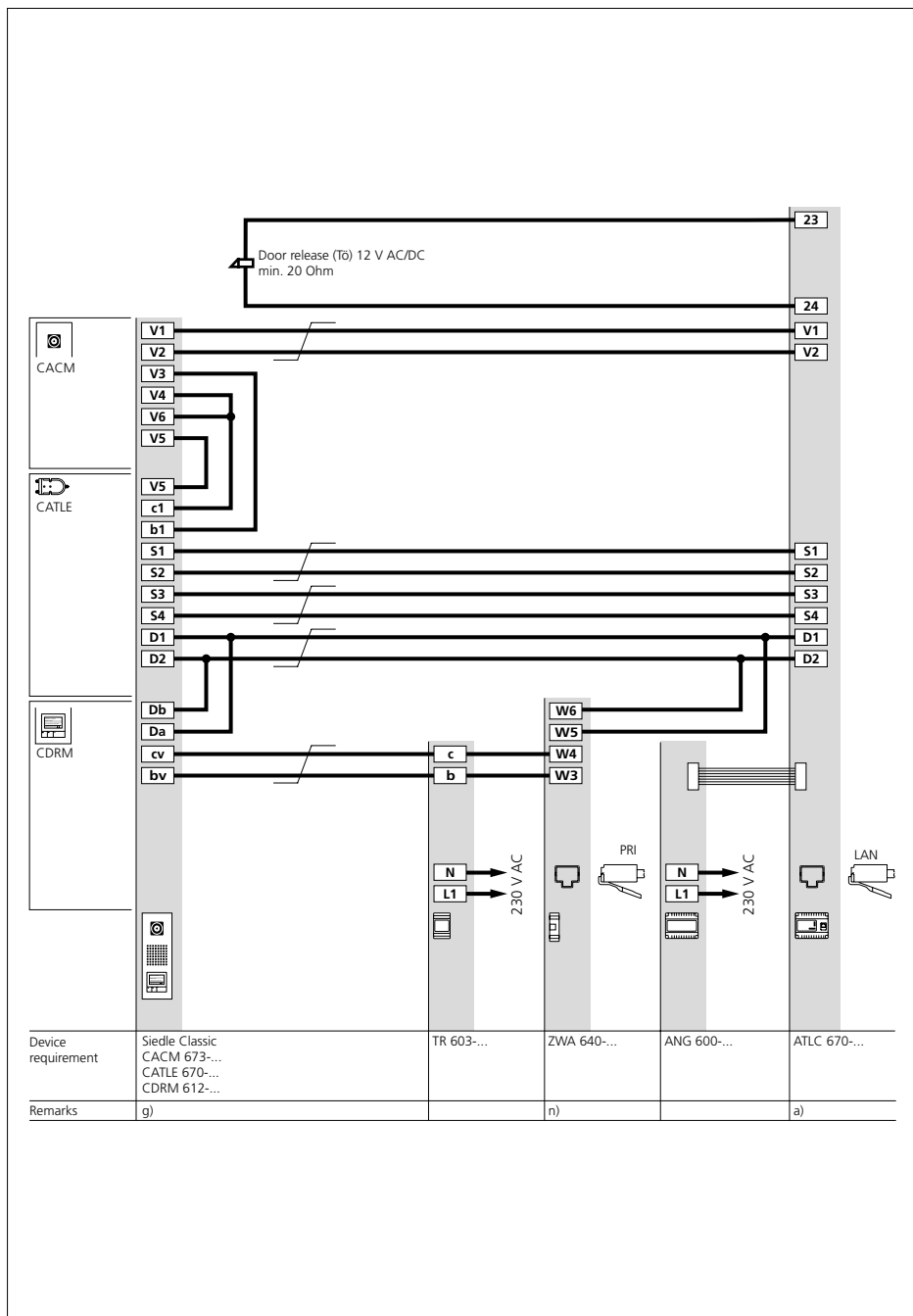
(Examples: For detailed information, see page 76)

y) The circuit diagram shows an exemplary connection of call buttons with the BRMA.

- (For detailed information, see page 109)

10.3 Siedle Classic

Display call module (Digital call)



Notes on the circuit diagram

a) If door releases or gate control systems are fitted and their connected values do not correspond to 12 V AC/DC and min. 20 Ohm, then either switching output 2 (ATLC terminals 13/14 (output)) or switching output 3 (ANG terminals 11/12/14 (output)) can be used as a potential-free door release contact.

To use switching output 2 or 3 as a potential-free door release contact, you must configure the corresponding ATLC switching output in the Access administration interface.

- Supply limits ATLC/NG 670-...

(For detailed information, see page 19, 24)

- The use of the potential-free switching outputs is described in separate diagrams.

(For detailed information, see page 72, 74)

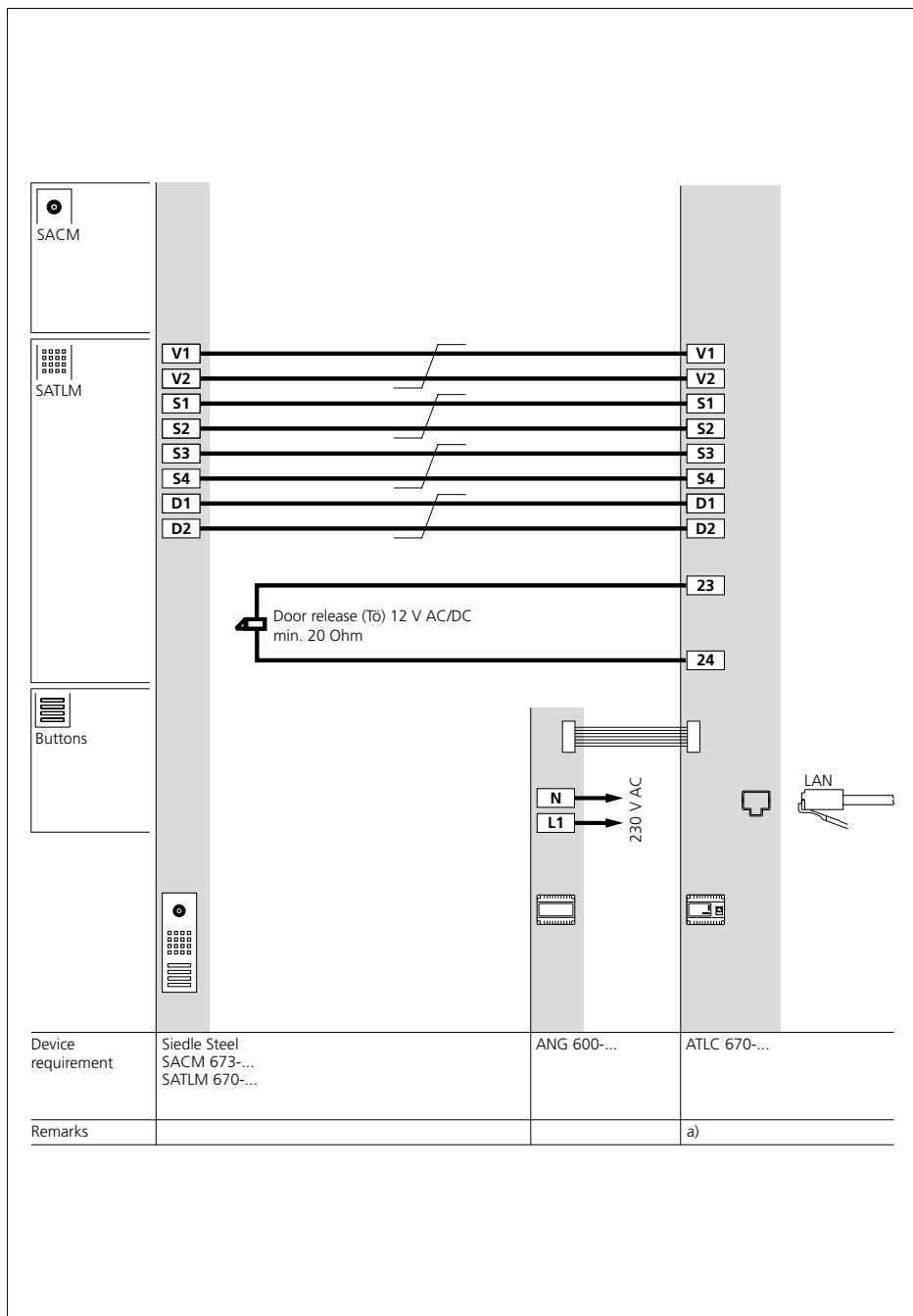
g) To ensure smooth operation, the DRM 612-... display call module must be supplied with its own power supply.

n) For programming the names, programming software PRS 602-... and programming interface PRI 602-... are required. The names are now entered in the display call module using the PRS 602-...

- The PRI 602-... is supplied via the power supply connected to the ZWA 640-..., (terminals W3/W4).

10.4 Siedle Steel

Basic circuit diagram (Video)



Notes on the circuit diagram

a) If door releases or gate control systems are fitted and their connected values do not correspond to 12 V AC/DC and min. 20 Ohm, then either switching output 2 (ATLC terminals 13/14 (output)) or switching output 3 (ANG terminals 11/12/14 (output)) can be used as a potential-free door release contact.

To use switching output 2 or 3 as a potential-free door release contact, you must configure the corresponding ATLC switching output in the Access administration interface.

- Supply limits ATLC/NG 670-...

(For detailed information, see page 19, 24)

- The use of the potential-free switching outputs is described in separate diagrams.

(For detailed information, see page 72, 74)



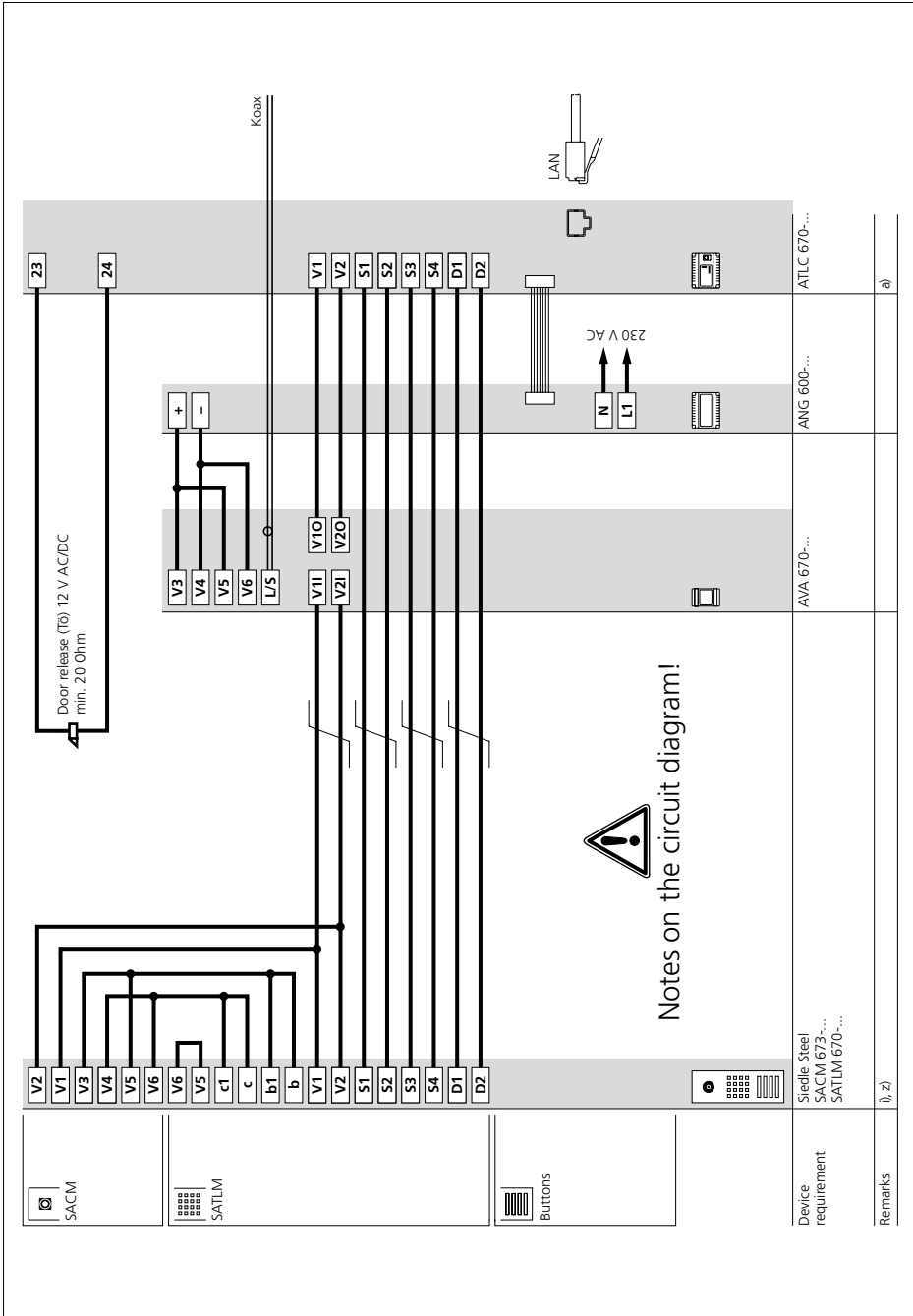
- Where there are more than 20 backlit call buttons, an additional 12 V AC supply for instance TR 603-... must be installed due to the current consumption. To use the additional supply, remove the jumpers on the SATLM... connection board from b1/c1 to b/c and connect the terminals b/c of the call buttons directly to the additional supply.

- Supply limits ATLC/NG 670-...

(For detailed information, see page 19, 24)

10.4 Siedle Steel

Video decoupler (camera in continuous operation)



Notes on the circuit diagram

a) If door releases or gate control systems are fitted and their connected values do not correspond to 12 V AC/DC and min. 20 Ohm, then either switching output 2 (ATLC terminals 13/14 (output)) or switching output 3 (ANG terminals 11/12/14 (output)) can be used as a potential-free door release contact.

To use switching output 2 or 3 as a potential-free door release contact, you must configure the corresponding ATLC switching output in the Access administration interface.

- Supply limits ATLC/NG 670-...

(For detailed information, see page 19, 24)

- The use of the potential-free switching outputs is described in separate diagrams.

(Examples: For detailed information, see page 72, 74)



- Where there are more than 20 backlit call buttons, an additional 12 V AC supply for instance TR 603-... must be installed due to the current consumption. To use the additional supply, remove the jumpers on the SATLM... connection board from b1/c1 to b/c and connect the terminals b/c of the call buttons directly to the additional supply.

- Supply limits ATLC/NG 670-...

(For detailed information, see page 19, 24)

i) The camera used must be suitable for continuous operation. Alternatively, the camera must be used in switching operation.

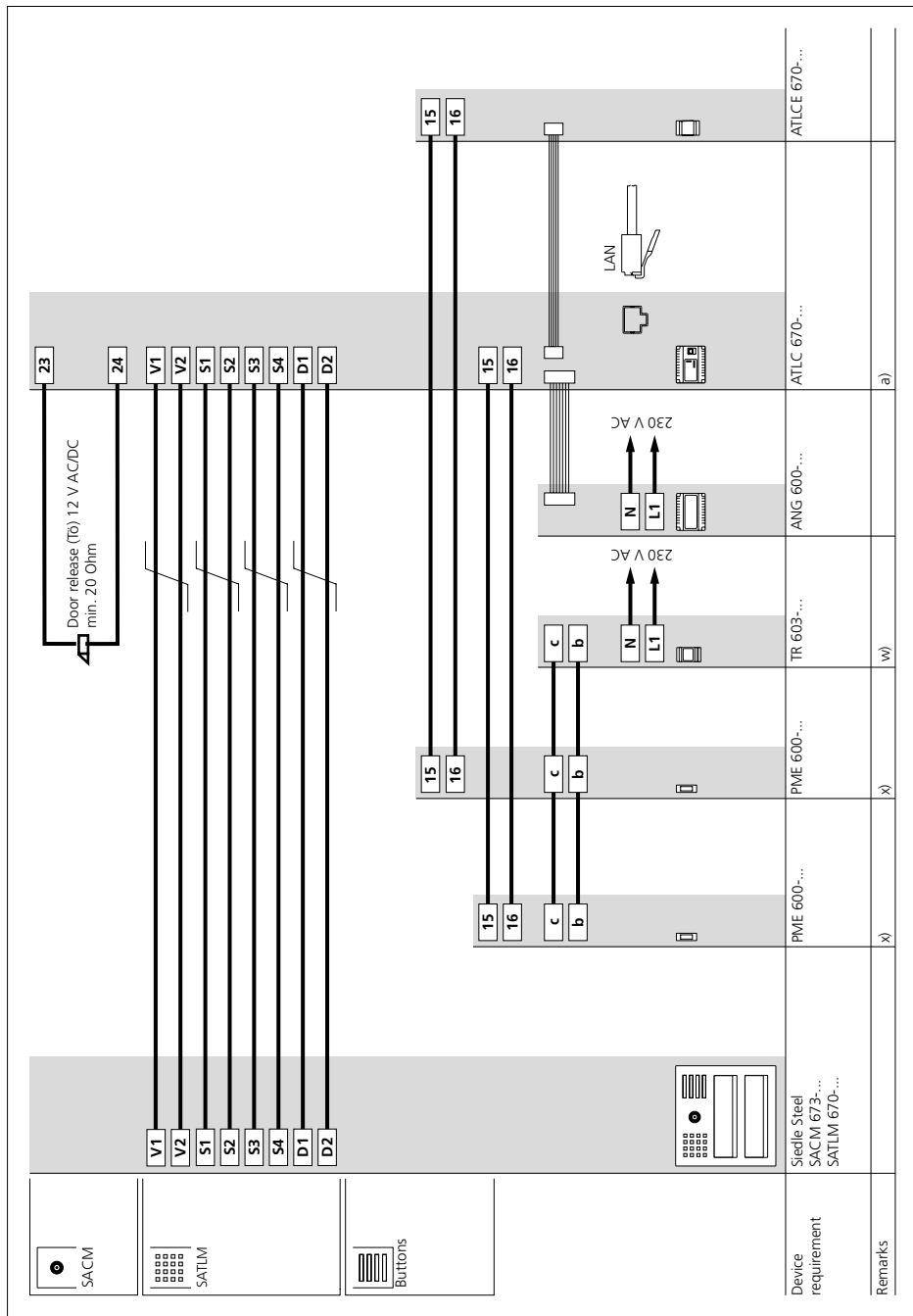
- In addition, the camera should only be used in continuous operation within its permitted operating parameters (e.g. ambient temperature).

(For detailed information, see page 35)

z) Before wiring, the 6-pole ribbon cable between the connection pcb SACM and the connection pcb SATLM must be removed.

10.4 Siedle Steel

2 mail notification systems



Notes on the circuit diagram

a) If door releases or gate control systems are fitted and their connected values do not correspond to 12 V AC/DC and min. 20 Ohm, then either switching output 2 (ATLC terminals 13/14 (output)) or switching output 3 (ANG terminals 11/12/14 (output)) can be used as a potential-free door release contact.

To use switching output 2 or 3 as a potential-free door release contact, you must configure the corresponding ATLC switching output in the Access administration interface.

- Supply limits ATLC/NG 670-...

(For detailed information, see page 19, 24)

- The use of the potential-free switching outputs is described in separate diagrams.

(For detailed information, see page 72, 74)



- Where there are more than 20 backlit call buttons, an additional 12 V AC supply for instance TR 603-... must be installed due to the current consumption. To use the additional supply, remove the jumpers on the SATLM... connection board from b1/c1 to b/c and connect the terminals b/c of the call buttons directly to the additional supply.

- Supply limits ATLC/NG 670-...

(For detailed information, see page 19, 24)

w) Separate power supply required.

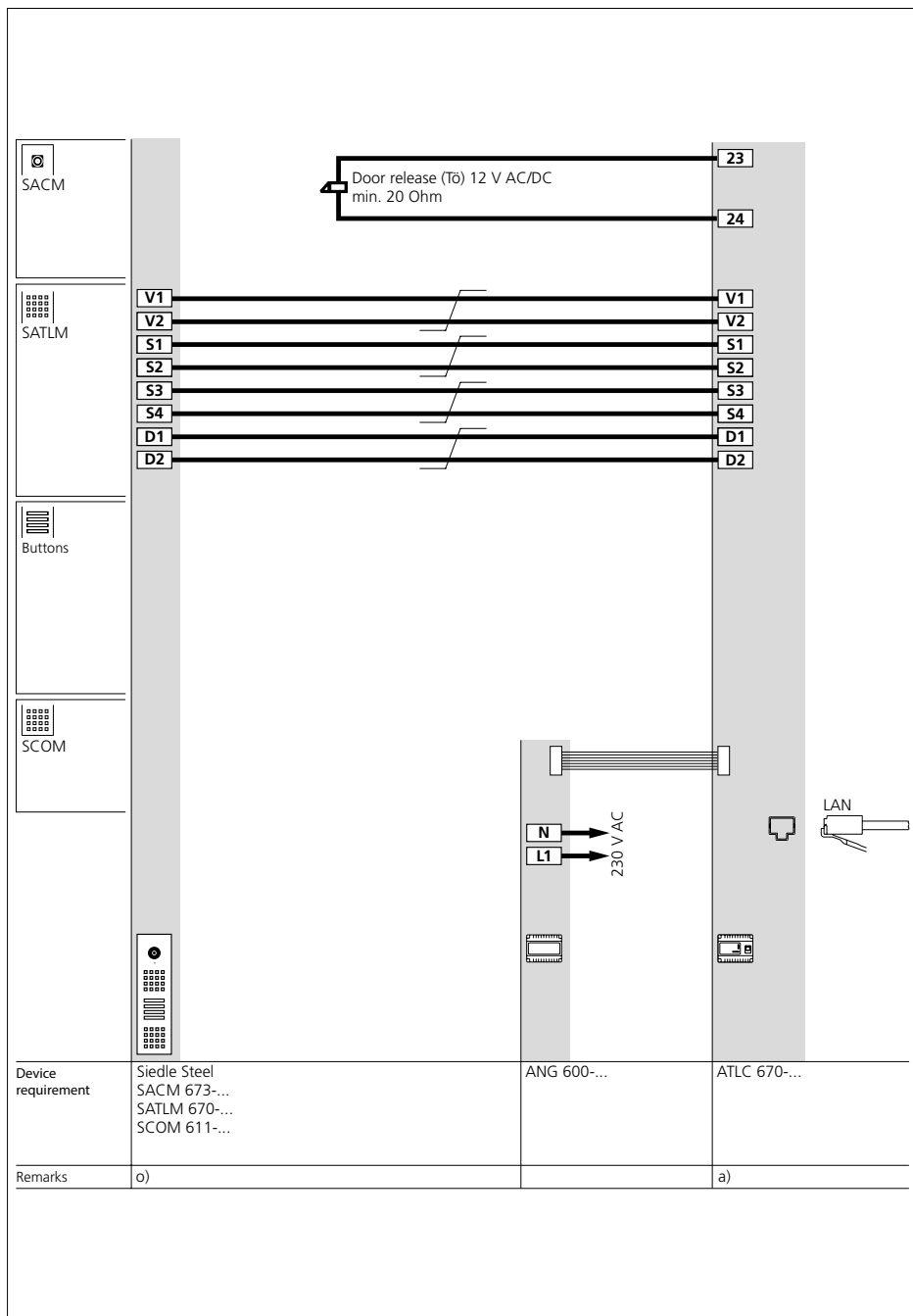
x) A separate potential-free switching input is required for each mail notification system.

- You must configure each switching input in the Access administration interface.

- You can run up to 7 mail notification systems with the fully extended system (1 ATLC and 3 ATLCs).

10.4 Siedle Steel

Code lock module (Digital call)



Notes on the circuit diagram

a) If door releases or gate control systems are fitted and their connected values do not correspond to 12 V AC/DC and min. 20 Ohm, then either switching output 2 (ATLC terminals 13/14 (output)) or switching output 3 (ANG terminals 11/12/14 (output)) can be used as a potential-free door release contact.

To use switching output 2 or 3 as a potential-free door release contact, you must configure the corresponding ATLC switching output in the Access administration interface.

- Supply limits ATLC/NG 670-...

(For detailed information, see page 19, 24)

- The use of the potential-free switching outputs is described in separate diagrams.

(For detailed information, see page 72, 74)

o) The COM 611-... code lock module is always available for making calls (direct dial via numeric code).

Together with the EC 602-... entrance controller, additional control functions (e.g. access control) can be carried out for this door station.



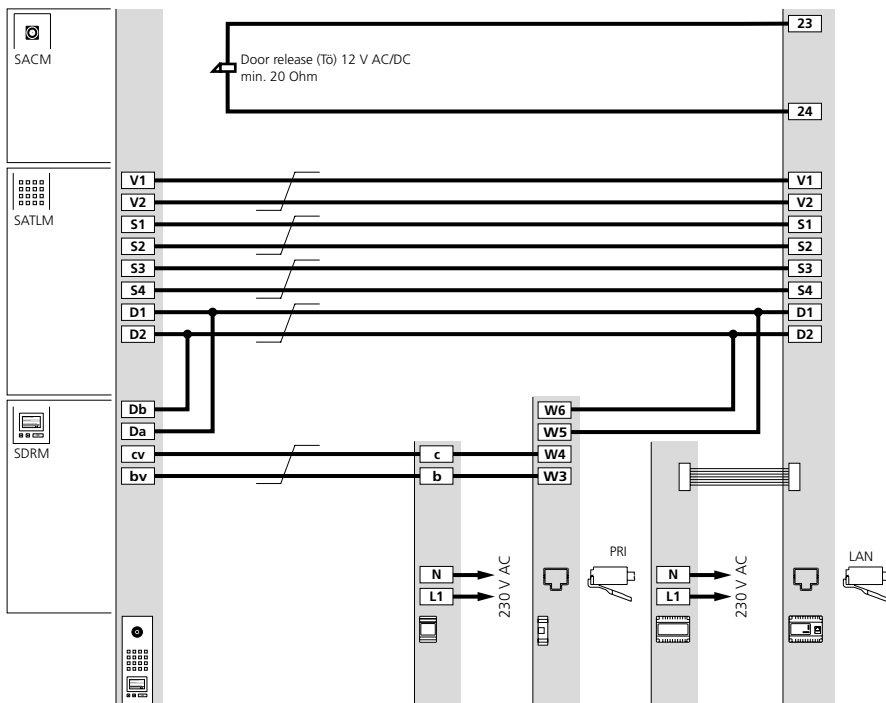
- Where there are more than 20 backlit call buttons, an additional 12 V AC supply for instance TR 603-... must be installed due to the current consumption. To use the additional supply, remove the jumpers on the SATLM... connection board from b1/c1 to b/c and connect the terminals b/c of the call buttons directly to the additional supply.

- Supply limits ATLC/NG 670-...

(For detailed information, see page 19, 24)

10.4 Siedle Steel

Display call module (Digital call)



Device requirement	Siedle Steel SACM 673-... SATLM 670-... SDRM 612-...	TR 603-...	ZWA 640-...	ANG 600-...	ATLC 670-...
Remarks	g)		n)		a)

Notes on the circuit diagram

a) If door releases or gate control systems are fitted and their connected values do not correspond to 12 V AC/DC and min. 20 Ohm, then either switching output 2 (ATLC terminals 13/14 (output)) or switching output 3 (ANG terminals 11/12/14 (output)) can be used as a potential-free door release contact.

To use switching output 2 or 3 as a potential-free door release contact, you must configure the corresponding ATLC switching output in the Access administration interface.

- Supply limits ATLC/NG 670-...

(For detailed information, see page 19, 24)

- The use of the potential-free switching outputs is described in separate diagrams.

(For detailed information, see page 72, 74)

g) To ensure smooth operation, the DRM 612-... display call module must be supplied with its own power supply.

n) For programming the names, programming software PRS 602-... and programming interface PRI 602-... are required. The names are now entered in the display call module using the PRS 602-...

- The PRI 602-... is supplied via the power supply connected to the ZWA 640-..., (terminals W3/W4).



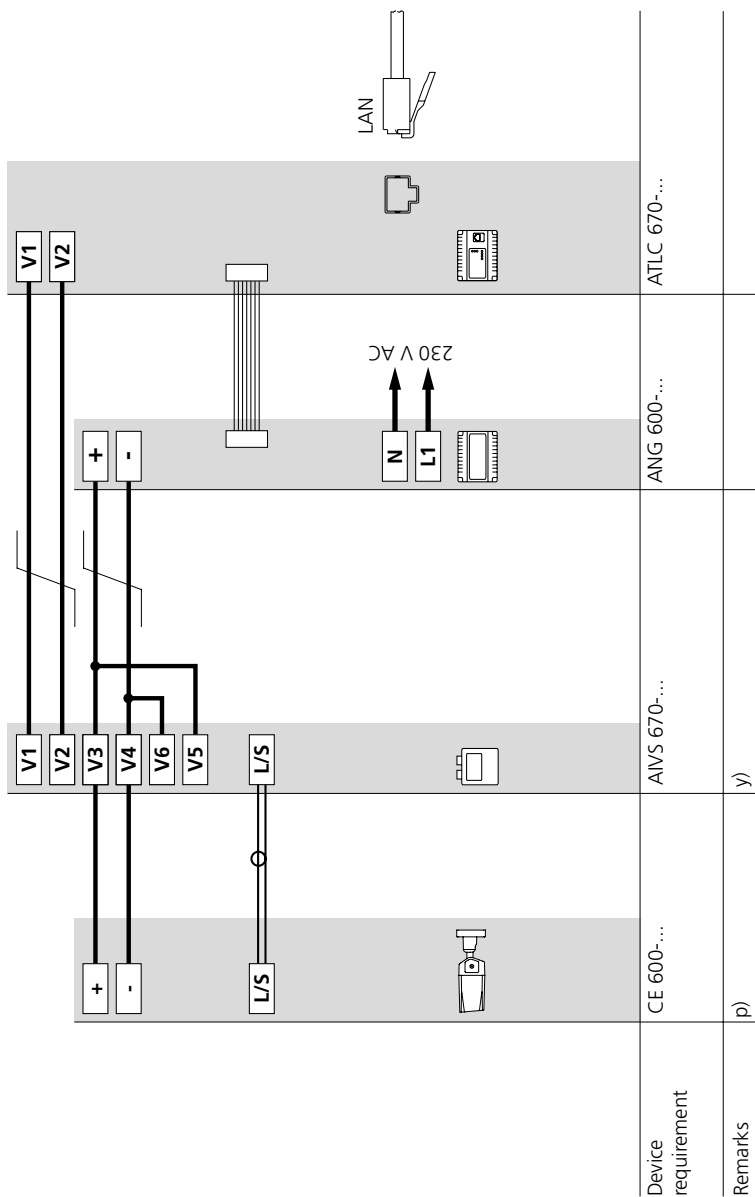
- Where there are more than 20 backlit call buttons, an additional 12 V AC supply for instance TR 603-... must be installed due to the current consumption. To use the additional supply, remove the jumpers on the SATLM... connection board from b1/c1 to b/c and connect the terminals b/c of the call buttons directly to the additional supply.

- Supply limits ATLC/NG 670-...

(For detailed information, see page 19, 24)

10.5 Camera connection

External camera



Functional

Viewing/monitoring a certain area using an Access indoor call station set up for the purpose.

Each camera is specifically selected via the ATLC 670-... The number of cameras/Access users is limited by the server used.

Using the buttons defined during configuration, each camera can be selected. This function must be configured for every authorized user.

Notes on the circuit diagram

p) Camera in continuous operation

The camera used must be suitable for continuous operation.

Alternatively, the camera must be used in switching operation. (For detailed information, see page 80)

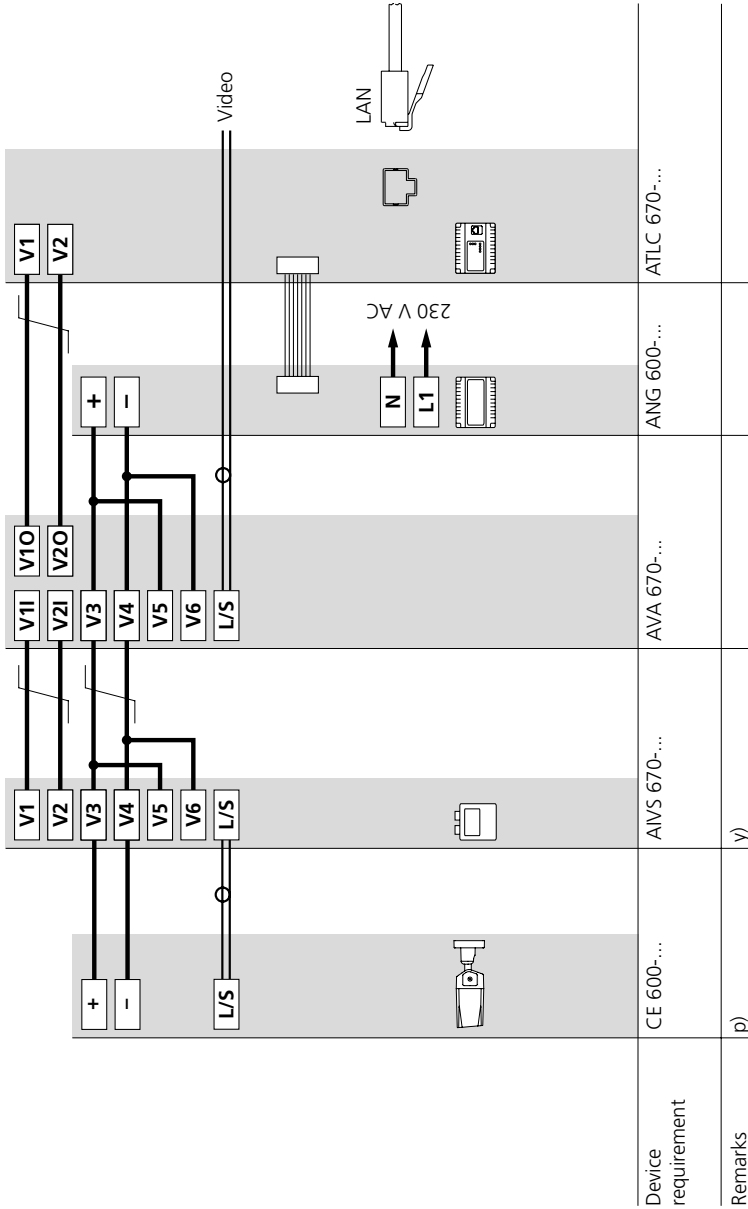
- In addition, the camera should only be used in continuous operation within its permitted operating parameters (e.g. ambient temperature).

(For detailed information, see page 35)

y) Distance between the camera and AIVS 670-... max. 10 m

10.5 Camera connection

External camera with video distributor



Functional

Viewing/monitoring a certain area using an Access indoor call station set up for the purpose.

Each camera is specifically selected via the ATLC 670-... The number of cameras/Access users is limited by the server used.

Using the buttons defined during configuration, each camera can be selected. This function must be configured for every authorized user.

The video signal is split using the video distributor AVA 670-... This allows the signal to be shown on a continuous surveillance monitor and also on an event-controlled basis on an assigned Access indoor device.

Notes on the circuit diagram

p) Camera in continuous operation

The camera used must be suitable for continuous operation.

Alternatively, the camera must be used in switching operation. (For detailed information, see page 80)

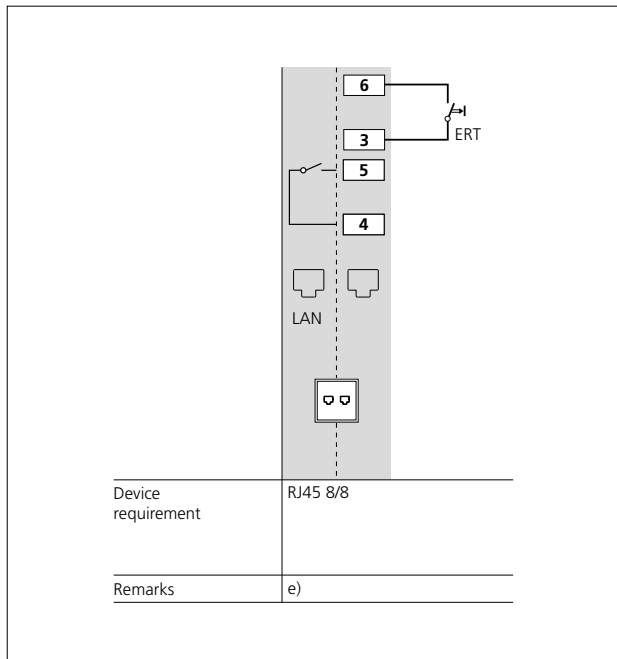
- In addition, the camera should only be used in continuous operation within its permitted operating parameters (e.g. ambient temperature).

(For detailed information, see page 35)

y) Distance between the camera and AVS 670-... max. 10 m

10.6 Storey call button

Customer-side signalling device (AHT/AHTV/AVP/AHF/AHFV...)



Notes on the circuit diagram

e) A suitable intermediate relay may be required for the customer's own existing signalling device.

f) By mounting accessory AZIO 870-... terminals 1 and 2 as well as 7 and 8 of the right-hand RJ45 telecom socket are occupied, as listed in the terminal assignment. The terminal assignment changes if a different accessory is mounted.

Terminal assignment RJ45

Left RJ45 socket

1–8 LAN (Access)

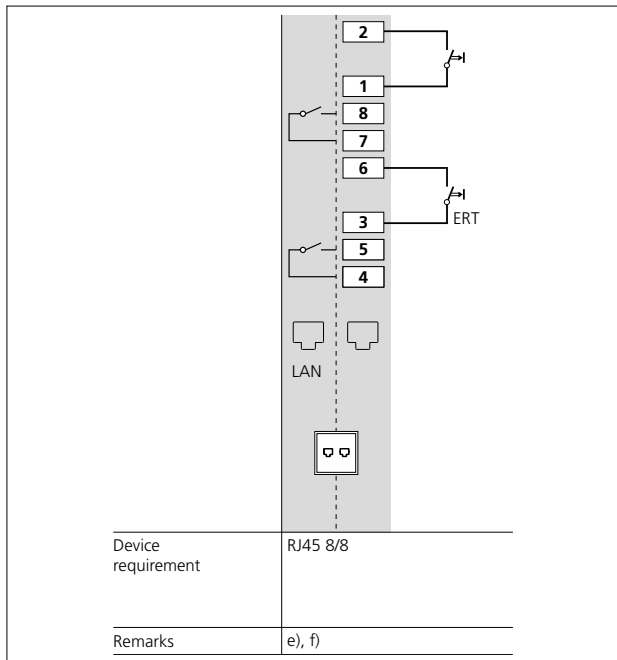
Right RJ45 socket

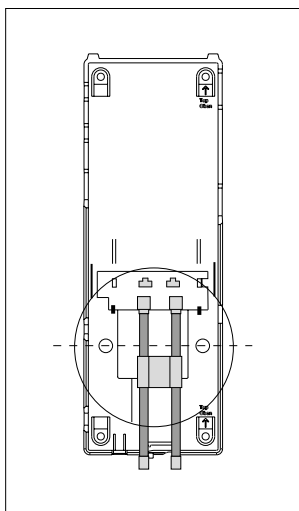
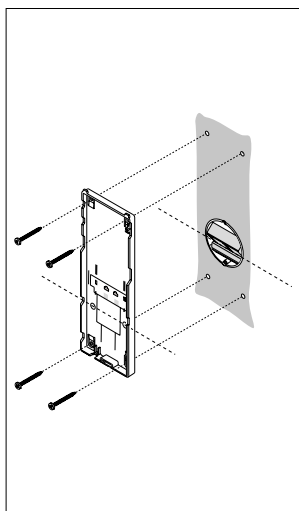
3, 6 Storey call button ERT

4, 5 switching contact
30 V AC/DC, 1 A

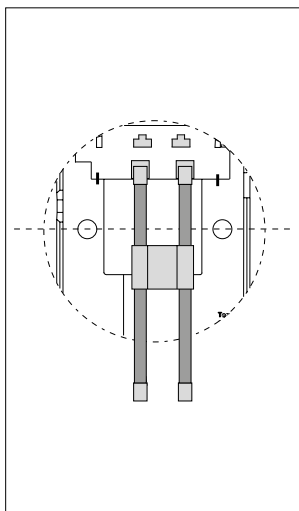
1, 2 input via potential-free
contact

7, 8 switching contact
30 V AC/DC, 1 A





An indoor device may only be connected to the network using an RJ45 8/8 (8) network socket or RJ45 socket modules 8(8).



The connection between the junction box and the circuit board of the indoor station is established with the RJ45 connectors included in the scope of supply.

First connect the RJ45 plug with the circuit board and then with the junction box.

Illustration exemplified by AHT/AHTV..., AHF/AHFV...

11 Used network ports

Necessary ports	Protocol / service	Commentary
22	TCP / SSH	The Access devices are restarted by means of SSH. This is why they must also be capable of reaching the ports for SSH and DNS (which are requested by the SSH server of the terminals).
53	UDP / (DNS/DNSSEC)	The access to the Siedle server is provided by the Access system as well as by the Siedle App via DNS/DNSSEC.
67	UDP / DHCP	DHCP requests and assignment of IP addresses and advanced DHCP options
69	UDP / TFTP	Checking/updating the firmware version of the end devices
80	TCP / HTTP	Contact lists and the video memory are transmitted by HTTP to the Access devices.
123	UDP / NTP	The Access devices receive the time of day from the NTP server.
443	TCP / HTTPS	The administration user interface can also be reached over HTTPS. Communication with the Siedle server for the video Image (Siedle App). Access to the Siedle repository server for updates / installation of the Siedle Access system software (Linux version).
514	UDP / SYSLOG	Transfer of log messages for end devices to the Access Server
3122	TCP / Websocket	Execution of control commands.
3123	TCP / Websocket secure	Execution of control commands (encrypted).
5060	UDP/TCP / SIP	Call signalling and negotiating communication (intenal).
5061	TCP / SIPS	Call signalling and negotiation of Siedle App communication (encrypted). Encrypted call signalling and negotiation of communication for the telephony connection via PABX gateway (optionally configurable).
8443	TCP / HTTPS	Communication between server and terminals.
8080	TCP / HTTP	Retrieval of the video stream at the Access server by external devices.
8883	TCP / Secure MQTT	Transmission of telemetry data for the Siedle App (dynamic) and execution of Siedle App control commands (encrypted).
8000 – 65535	UDP / RTP Audio	Port range for the audio transmission (dynamic).
	UDP / RTP Video	Port range for the video transmission (dynamic).
10000 – 65535	UDP / SRTP Audio	Port range of the encrypted audio transmission of the Siedle App (dynamic).
	UDP / TFTP	Configuration transmission within the network (dynamic).
	UDP / RTP	Port range of the audio transmission of a telephony connection via a PABX-gateway (dynamic).

Incoming ports (end devices establish a connection to this port)

Port	Protocol	Service	Server	Indoor station				Client			Door station	External device
				ASH 671 ..., Access Prof. 6	AFSV AFS ...	AHTV, AHT ...	AHFV, AHF ...	AVP ...	ASC, ASHT ...	Siedle App ...		
22	TCP	SSH	-	-	-	-	-	-	-	-	-	-
53	UDP	DNS/DNSSEC	-	•	•	•	•	-	-	•	•	-
67	UDP	DHCP	-	•	•	•	•	-	-	•	•	-
69	UDP	TFTP	-	•	•	•	•	-	-	•	•	-
80	TCP	HTTP	-	•	•	•	•	•	-	•	•	-
123	UDP	NTP	-	•	•	•	•	-	-	•	•	-
443	TCP	HTTPS	-	•	-	-	-	•	-	-	-	-
514	UDP	SYSLOG	-	•	•	•	•	-	-	•	•	-
3122	TCP	Websocket	-	-	-	-	-	•	-	-	-	-
3123	TCP	Websocket secure	-	•	-	-	-	•	-	-	-	-
5060	UDP/TCP	SIP	-	•	•	•	•	•	-	•	•	•
5061	TCP	SIPS	-	-	-	-	-	-	-	-	-	•
8443	TCP	HTTPS	-	•	-	-	-	-	-	-	-	-
8080	TCP	HTTP	-	-	-	-	-	-	-	•	-	-
8883	TCP	Secure MQTT	-	•	-	-	-	-	-	-	-	-

- Connection setup within the Access network (LAN)
- not used

11 Used network ports

Outgoing ports (server/end device establishes a connection to this port)

Port	Protocol	Service	Server	Indoor station				Client			Door station	External device
				ASH 671 ..., Access Prof. 6	AFSV AFS ...	AHTV, AHT ...	AHFV, AHF ...	AVP ...	ASC, ASHT ...	Siedle App ...		
22	TCP	SSH	-	-	•	•	•	-	-	-	-	-
53	UDP	DNS/DNSSEC	• (1)	-	-	-	-	-	-	-	-	-
67	UDP	DHCP	-	-	-	-	-	-	-	-	-	-
69	UDP	TFTP	-	-	-	-	-	-	-	-	-	-
80	TCP	HTTP	-	-	-	-	-	-	-	-	-	-
123	UDP	NTP	• (1)	-	-	-	-	-	-	-	-	-
443	TCP	HTTPS	-	-	-	-	-	-	• (1)	-	-	-
514	UDP	SYSLOG	-	-	-	-	-	-	-	-	-	-
3122	TCP	Websocket	-	-	-	-	-	-	-	-	-	-
3123	TCP	Websocket secure	-	-	-	-	-	-	-	-	-	-
5060	UDP/TCP	SIP	-	-	-	-	-	-	-	-	-	-
5061	TCP	SIPS	-	-	-	-	-	-	• (1)	-	-	-
8443	TCP	HTTPS	-	-	-	-	-	-	-	-	-	-
8080	TCP	HTTP	-	-	-	-	-	-	-	-	-	-
8883	TCP	Secure MQTT	-	-	-	-	-	-	• (1)	-	-	-

• Connection setup within the Access network (LAN)

• (1) Connection setup via the Internet to the Siedle server (only when using the Siedle app)

- not used

Dynamic ports (incoming/outgoing)

Port	Protocol	Service	Server	Indoor station				Client			Door station	External device
				ASH 671 ..., Access Prof. 6	AFSV AFS ...	AHTV, AHT ...	AHFV, AHF ...	AVP ...	ASC, ASHT ...	Siedle App ...		
8000 – 65535	UDP	RTP Audio	–	•	•	•	•	•	–	•	•	•
8000 – 65535	UDP	RTP Video	–	•	•	•	•	•	–	•	•	•
10000 – 65535	UDP	SRTP Audio	–	–	–	–	–	–	• (1)	–	–	–
49152 – 65535	UDP	TFTP	–	•	•	•	•	•	–	–	•	•

- Connection setup within the Access network (LAN)
- (1) Connection setup via the Internet to the Siedle server (only when using the Siedle app)
- not used

12 Commissioning and operation

Commissioning

Coordination/initial commissioning of an Access system should be performed by Siedle or an Access Certified Partner. The system must be ready installed, documented and made ready for operation (see commissioning requirements) by the date of commissioning.

Access to all parts of the system must be guaranteed, the system administrator must be available.

Commissioning is performed against a charge. The relevant charging rates are shown in the quotation/the commissioning form sheet.

The Access system is configured using a computer running the current browser on the Access server. The necessary configuration is carried out directly on the Access server using the web user interface. Any necessary support for configuration-related questions can be found in the commissioning instructions or the Access help function. Careful documentation of the system and any configuration-related requirements with an indication of the device mounting locations are particularly helpful and should be made a constituent part of the operating manual without fail.

Commissioning requirements Installation

- The installation complies with structured cabling in accordance with EN 50173-1/2/3/4 (ISO/IEC 11801/24702/15018), a corresponding network plan has been created
- All necessary network connections are available
- The cabling complies with at least Cat 5e

Network requirements:

- Separate physical network or VLAN with quality of service (IEEE802.1p)*
- Active network components feature Ethernet technology
- Minimum network requirement: 100Base Tx
- Consistent multicast-capable network
- Connection of indoor devices to conventional network sockets
- The use of switches is a prerequisite (no hubs in the network)
- The Access indoor call stations (AHT/AHTV/AHF/AHFV/AVP) require PoE-capable switches or PoE injectors to IEEE802.3af
- Broadband requirement approx. 1 Mbit per connection

* The perfect operational reliability of a VLAN integration can only be ensured by agreement with the Access Service Center (ASC).

Call number table

- (who is calling whom and how) is available, KNX configuration is clarified
- Required key configuration available

Commissioning encompasses the following services

- Review of submitted documents
- Initialization of the system (server)
- Identification and assignment of devices used, licensing arrangements
- Set-up and configuration of door stations
- Set-up and configuration of indoor stations
- Set-up and configuration of software clients
- Set-up and configuration of gateways (connection of non-Siedle devices)
- Instruction and data transfer to the administrator/user on site

Commissioning instruction

The commissioning process for the Access system is described in detail in the Access server commissioning instructions which can be found in the Siedle download area.

Operating manual

To ensure that you can retrace the status of a system at any time, an operating manual should be drawn up and regularly maintained.

Siedle recommends compiling an operating manual to document the network and the Access system. The operating manual must be accessible to servicing personnel and contain fundamental information:

- Contact data of the system administrator (with deputization arrangements)
- Hardware list
- Documentation of the server configuration
- Server backup
- Documentation of the software status and device configuration
- Construction plan with structured cabling (LAN policy)
- Issue of passwords and possibilities for remote login access
- IP address and device names of the network components
- Process descriptions (e.g. creating a user, exchanging devices etc.)
- Documentation of changes made
- Documentation of errors/remedy of errors

Updates



- The software for all Siedle Access products with network connection is capable of updating. From Access Professional 5... (Linux variant), the server operating system and the Access system software are updated via command line command. Internet access to the Access system is required for this.
- The update is initialised by the Access Certified Partner / administrator and centrally executed at the server for all the devices. It is not possible to carry out a single update for an individual indoor device or server.
- During the update process, the entire system is non-operational. No calls or functions can be initiated or received. Updates should therefore be carried out during periods of minimal activity and with sufficient advance notice. All buttons flash yellow to visually indicate that the indoor devices are being updated. After the update is complete, the devices are automatically restarted.
- During the update process, the power supply to the Siedle devices must not be interrupted, as this can result in damage. In this case, a repeat update is no longer possible, and the devices will have to be sent in for repair.

12 Commissioning and operation

Initial commissioning/Login

Access server variant ASH 671-0 S/M

Access to the system:

The Siedle Access servers can be reached in the network as standard over **http://192.168.1.1**

Procedure

1 Connect the commissioning computer directly to the Access server by switch.

2 Start the browser on the commissioning computer.

3 Enter the pre-configured IP address of the Access server.

4 The login screen of the Access system is accessed and opens in the browser window.

5 Select the operating language of the Access System Administration.

6 Log into the Access system (**account name: admin / password: admin**). *

Customer's own server with installed Access system

Access to the system:

The customer's own server operating system can be reached in the network under the individually assigned static IP address.

Procedure

1 Connect the commissioning computer directly to the Access server by switch.

2 Start the browser on the commissioning computer.

3 Enter the **individually assigned IP address** of the server operating system.

4 The login screen of the Access system is accessed and opens in the browser window.

5 Select the operating language of the Access System Administration.

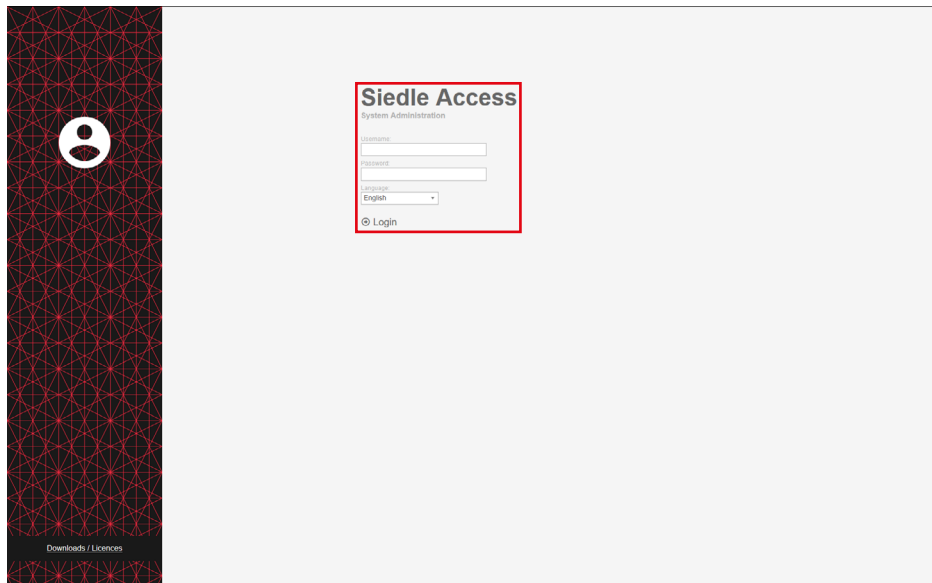
6 Log into the Access system (**account name: admin / password: admin**). *

Additional functions at the login window

There is one active link provided at the login window:

Downloads / Licences: Here, you have dual-language access to information on system requirements and licence agreements, to the Access software clients (Access Software Concierge and Access Software In-house telephone) and to necessary Windows software components for operation at Windows PCs.

* Please change the password on initial commissioning, taking note of the security instructions.



Accessing the Access system

IP address of the Access Server	192.168.1.1
Subnet mask	255.255.255.0

Standard login data – server operating system (Linux)

User	Password *	SSH login
root	SiedleAccessMain2019	–
access	SiedleAccessMain2015	Active

Standard login data – Access server administration

User	Password *
admin	admin

User access and passwords for the Access system

Siedle Access and the server operating system are delivered with standard passwords. Issue new and secure passwords and keep these in a safe location. Forgotten passwords of the Access server and the server operating system cannot be restored and the server operating system would have to be reinstalled and commissioned.

All user access codes and passwords are within the sphere of responsibility of the installer/operator/customer.

13 Servicing

Service requirement

Access systems are serviced by the regional Access Certified Partner (service specialists). Customers/administrators request this services as the need arises.

For services specialists, access must be afforded to all parts of the system at all times. The administrator and all necessary documents appertaining to the system must be available for the duration of the servicing work.

Warranty

Siedle excludes the guarantee for configurable functions and system properties on hardware and software supplied by Siedle if commissioning was not carried out by the Access Service Centre or our Access Certified Partners and this can be verified. Statutory rights for the delivery of defect-free goods are not affected.

All system components which are designed for/suitable for installation in an electrical distribution board or in an IT cabinet system/housing may only be installed in the permitted installation position according to the enclosed product information.

If system components are operated in improper installation positions or with improper operating parameters (e.g. excessive ambient temperature), this will render their warranty rights void in the event of service.

Exchanging devices

All devices which are connected directly to the network (indoor devices and ATLC 670-...) can be exchanged in running operation.

Procedure:

- The administrator overwrites the MAC address for the device with the MAC address of the new replacement device in the server.
- Exchange the defective device.
- The configuration remains unchanged, making the function identical with the predecessor device.



Exchanging ATLM/ATLE 67x-...

Procedure:

- Only the line rectifier which supplies the ATLC 670-... has to be disconnected from the mains. The Access system can remain operational.
- Exchange the defective ATLM/ATLE 670-...
- Switch the line rectifier back on.
- The system is now completely ready to resume operation. No configuration is required.

Exchanging a defective server

AS 670-.../ASH 670-.../

ASH 671-...

Procedure:

- 1 Sever all connections to the mains and the power supply.
- 2 Exchange the defective server and restore all the connections
- 3 Set up the supplied licences on the new server

Update process

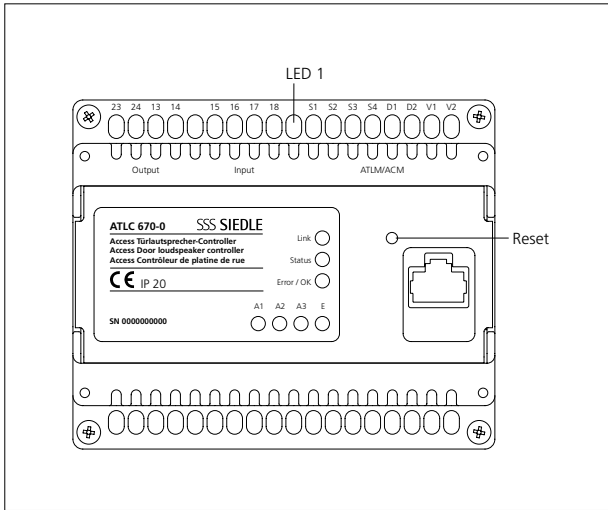
The update is initialised by the Access Certified Partner / administrator and centrally executed at the server for all the devices. It is not possible to carry out a single update for an individual indoor device or server.

During the update process, the entire system is non-operational. No calls or functions can be initiated or received. Updates should therefore be carried out during periods of minimal activity and with sufficient advance notice. All buttons flash yellow to visually indicate that the indoor devices are being updated. After the update is complete, the devices are automatically restarted. During the update process, the power supply to the Siedle devices must not be interrupted, as this can result in damage. In this case, a repeat update is no longer possible, and the devices will have to be sent in for repair.

Start process

The start process can be initiated centrally by the administrator at the server. Unplugging and reconnecting the internal devices also initiates a restart. The Access door loudspeaker controller can be restarted by briefly disconnecting the relevant line rectifier or by actuating the reset button. A restart of the internal devices is signalled by a yellow flashing light, starting with button 8 and ending with button 6, and the display lights up in white. If the start is successful and when the device has received all the information from the server, the system goes to the operating status. In the event of a fault, e.g. the internal device is not configured, all the buttons light up continuously in red.

LED displays

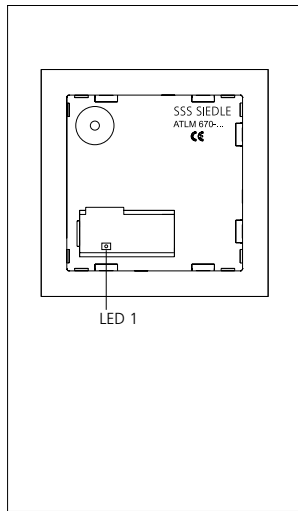


ATLC 670-0

LED display	LED operating status	Function
LED 1	off	no operating voltage
	lights up in green	operating voltage applied
Link	lights up in green	connection to switch exists
	flashes green	data communication with the device
	off	no connection to the switch
Status	lights up in green	ATLC ready for operation
	flashes green	data communication in the Vario bus
Error/OK	lights up briefly in green	after Power On for around 5 seconds
	flashes green	during ramp-up, flashing starts up appr. 20 seconds after Power On
	lights up in green	ATLC is logged in at the server
	lights up in red	error logging into server
A1	lights up in green	output 1 HIGH (DR)
	off	output 1 LOW (DR)
A2	lights up in green	output 2 HIGH
	off	output 2 LOW
A3	lights up in green	output 3 HIGH (LI)
	off	output 3 LOW
E	lights up in green	input 1 HIGH (LI)
	off	input 1 LOW

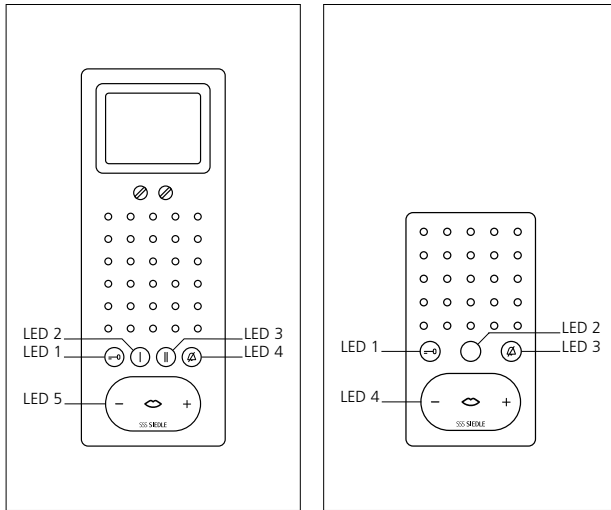
13 Servicing

LED displays



ATLM 67x-...

LED display	LED operating status	Function
LED 1	flashes 3x in green	Device starts up
	off	Ramp up successfully completed
	lights up in green	Audio active
	Flashes briefly 3x in green	unassigned/unprogrammed call button is actuated
	lights up in red	At least 2 ATLMs are connected to one ATLC...! Please reduce installation to 1 ATLM... per ATLC... and restart ATLC...

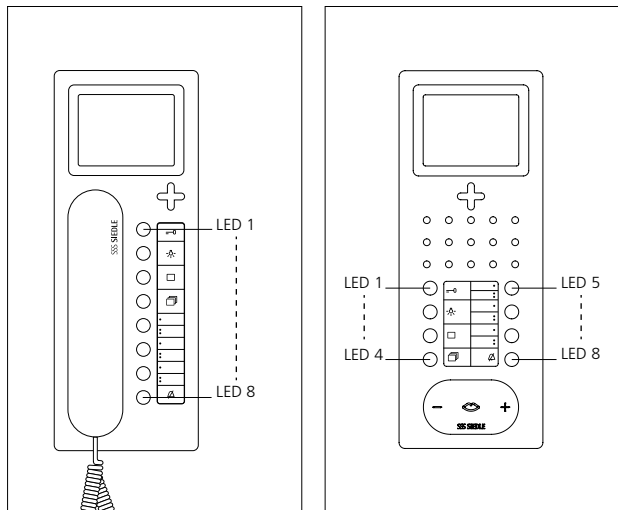


LED display

AFSV 870-...	AFS 870-...	LED operating status	Function
LED 1-5	LED 1-4	light up yellow	Device initialisation 1/2 (after "power on", each for approx. 5 seconds)
LED 1-4	LED 1-3	chaser yellow	Device initialisation 2/2 (for approx. 10 seconds) after Power On for around 5 seconds
LED 5	LED 4	flashes red	error logging into server
LED 1-5	LED 1-4	off	Ready for operation (successfully logged into server)
LED 5	LED 4	flashes alternately red/yellow	Software update for terminals

13 Servicing

LED displays



AHTV/AHT/AHFV/AHF 670-...

LED display	LED operating status	Function
LED 8	flashes yellow	Searching for the server
	off	server found
LED 7	flashes yellow	loading configuration from server
	off	export successfully completed
LED 6	flashes yellow	login to server
	off	login successful
LED 1-8	lights up briefly in yellow	after Power On for around 5 seconds
	lights up in red	error logging into server
	off	successfully logged into server
	Flashes for appr. 2 mins.	Software update for terminals

Terminal connections and measured values

ATLC 670-0

Terminal	Description	Measured values
V1 V2	Video signal (two-wire FBAS)	appr. 40 – 200 mV AC only with active video connection
S1/S2	Loudspeaker and power supply 48 V DC (+)	between S1/S2 (+) and S3/S4 (-): appr. 42.1 - 47.4 V DC (typical: 46.2 V DC)
S3/S4	Microphone and power supply 48 V DC (-)	
D1 (Da) D2 (Db)	Vario bus + Vario bus -	appr. 230 – 270 mV DC (Typical: 250 mV DC)
13/14	Output 2 potential-free	-
15/16	Input 1 potential-free *	-
17/18	Input 1 electrically isolated * 17 (+), 18 (-)	-
23/24	Output 1 potential	AC/DC programmable: appr. 10-16 V AC, 13 V DC

* The switching input can either be used potential-free or electrically isolated. It is not intended for simultaneous use.

ANG 600-0

Terminal	Description	Measured values
11	Changeover contact A3 common	-
12	Changeover contact A3 N.C. contact	-
14	Changeover contact A3 N.O. contact	-
+/-	Output voltage 48 V DC, 800 mA	appr. 48 V DC

Specification of the changeover contact:

- Contact load at least 5 V, 100 mA
10 V, 10 mA 24 V, 1 mA
- Admissible switching outputs:
 - Motor max. 3 A bulbs max. 1300 W
 - Energy saving lamps max. 18 x Sylvania 7 W or 12 x Osram 11 W
 - Fluorescent lamps uncompensated $\cos \phi$ 0.5 max. 800 VA Duo fluorescent lamps max. 1200 VA
 - Parallel compensated fluorescent lamps max. 400 VA
 - Iron core transformers for low-voltage halogen lamps max. 1000 W
 - Electronic transformers for low-voltage halogen lamps max. 1300 W

13 Servicing

Terminal connections and measured values

AIVS 670-0

Terminal	Description	Measured values
V1 V2	Video signal (two-wire FBAS)	appr. 40 – 200 mV AC only with active video connection
V3 V4	Supply AIVS 670-0 + Supply AIVS 670-0 –	appr. 48 V DC
V5 V6	Camera actuation + Camera actuation –	appr. 48 V DC
S5 S6 S7	Camera supply permanent + Camera supply control signal + Camera supply –	appr. 12/24 V DC

* The total current from S5 - S7 and S6 - S7 is limited to 200 mA. The output voltage always corresponds to the set switch position.

ATLM 670-0 / ATLM 671-0

Terminal	Description	Measured values
V1 V2	Video signal (two-wire FBAS)	appr. 40 – 200 mV AC only with active video connection
V5 V6	Camera actuation + Camera actuation –	appr. 10 – 12 V DC (Typical: 11 V DC) only with active video connection
D1 (Da) D2 (Db)	Vario bus + Vario bus –	appr. 230 – 270 mV DC (Typical: 250 mV DC)
S1/S2	Loudspeaker and power supply 48 V DC (+)	between S1/S2 (+) and S3/S4 (-): approx. 39.1 – 46.9 V DC (typical: 46.2 V DC)
S3/S4	Microphone and power supply 48 V DC (-)	
b c	Button illumination + Button illumination –	approx. 13.1 – 16 V DC (typical: 14.8 V DC) (Bridged with b1 and c1, without supplementary supply)
b1 c1	Supply button lighting +, generated from ATLM Supply button lighting –, generated from ATLM	approx. 13.1 – 16 V DC (typical: 14.8 V DC) (Bridged with b and c, without supplementary supply)

14 Glossary

3G (UMTS)

Third generation mobile network standard with transfer rates of up to 42 Mbps if improved data transfer methods (HSDPA+) are used.

-> UMTS, HSDPA(+)

4G (LTE-Advanced)

Advanced 4th generation LTE mobile network standard (also called LTE Max). Currently transfer rates of up to 300 Mbps are offered. The maximum possible transfer rates may vary from country to country. According to the standard, transfer rates of up to 1000 Mbps are envisaged.

-> LTE-Advanced

Access control

Security system which controls the access to a property (plot, building, room, etc.) via a set of rules defined by the user (access for whom, when and where). Thus only authorised persons obtain (time-limited) access to the areas for which they have been approved. Siedle offers a modular access control system which can also be operated in parallel with Access via the Variobus.

Apple Push Notification Service (APNS)

-> Push notification service

Bandwidth

Parameter of signal transmission systems in telecommunications (e.g. IP-based networks) which describes and classifies the theoretical data transmission performance. The bandwidth of the transmission path (e.g. network cable) determines the maximum theoretical data transmission rate which can be reliably transmitted per unit of time and is the difference between an upper and lower frequency value within a frequency range in which the data transmission takes place by means of signals. The greater the bandwidth, the more information can be transmitted per unit of time. Bandwidth is expressed as a frequency value in units of Hertz (Hz), if necessary with unit suffixes (M for Mega = millions) (e.g. 300 MHz). Colloquially, bandwidth is also used as a synonym for the data transmission rate within IP-based networks, although normally the transfer rate or data rate is meant.

Cat. 5 – Category 5

Class (stage) of a standardised multi-stage classification system of TP cables (twisted pair data cable) for use in telecommunications and information technology. The classification system specifies the transfer property requirements of a data cable in the relevant class and thereby forms the basis for the specification (link class) of an end-to-end data transmission path with all components. The requirements on a data cable increase with the suffix (digit). Cat. 5 contains data cable specifications for a data transfer path (data cable and junction boxes) of up to 90 m and data transfer rates of over 20 Mbps or operating frequencies (bandwidth) of up to 100 MHz (Megahertz) and thereby for the 100 BASE-TX (2-pair) Ethernet application in IP-based networks.

-> TP – Twisted Pair

Delay (information technology)

-> Latency time

DHCP – Dynamic Host Configuration Protocol

Network/communication protocol which enables the integration of any computers (clients) in an existing network based on a leading instance (server, router, etc.) without manually configuring the network interface. Information needed for network traffic and data exchange, such as IP address, subnet mask, gateway, DNS and, where applicable, other settings, are automatically assigned, provided the operating system/ its configuration of the computer (client) supports this.

Distribution

This is the place where several devices are switched together (connected). This often takes place in a distributor cabinet, although this is not mandatory. Large distribution panels can fill an entire room.

Door area

In the door area are all devices connected to the system via an Access door loudspeaker controller ATLC 670-... This also includes cameras which monitor different areas.

Doormatic

Programmable function which actuates a contact in the ATLC 670-... with a time delay (door release). Example: The entrance doors to a doctor's surgery can be opened directly after pressing the call button, as the door release is automatically triggered.

DNS – Domain Name System

Directory service (database) in larger networks and the Internet for converting domain names (e.g. www.siedle.com) into IP addresses (e.g. 10.11.12.13). DNS is automatically managed and continuously updated on the Internet by numerous decentrally positioned servers. Without DNS, a company homepage on the Internet could only be called up by entering the IP address (if known).

DynDNS – dynamic DNS (DDNS)

Service for automatically updating the associated domain entry (specified domain name) in the DNS in real time after a (public) IP address is changed. In this way, a computer can always be reached under the same domain name, even if the user does not know the actual IP address. For example, a typical application is the accessibility of a computer via the Internet, which is operated on a private DSL connection with daily forced disconnection and a newly assigned IP address. DynDNS can be run as a service via various DynDNS providers.

Firewall

Security system which can protect an individual computer, server or an entire network against unwanted network access, based on configured network communication rules. The firewall may be software on an end device or an independent device in the network.

Firmware

Software that can be embedded in electronic devices (e.g. indoor stations) and is needed for their fundamental operation. Firmware only works with its intended device. It is only possible for the end user to change the firmware themselves when the manufacturer provides a software package which is able to carry out the software replacement on the device.

G.711

Standard (codec) used for digital audio compression of analogue audio signals with the aid of pulse code modulation (PCM) for IP telephony (VoIP) and classic landline telephony (ISDN) applications. The audio codec G.711 is lossless and requires very little processing power.

Gateway

Network-capable components (coupling element) which connects or disconnects networks which can be based on completely different architectures and protocols. Example: KNX (bus system) is connected to the Access system (TCP/IP network) via a KNX gateway. In the Access system, gateways for KNX and an external connection to SIP telephony (SIP gateway and SIP provider) can be created.

H.264/MPEG-4 AVC

Recommended and functionally-extensive standard for video compression of digitalised and high-resolution video sequences (e.g. HDTV).

HSDPA(+) – High Speed Downlink Packet Access

Data transfer method of the 3G mobile network standard (UMTS) with standard transmission rates of up to 7.2 Mbps (HSDPA) or 42 Mbps (HSDPA+) (also called 3.5G, 3G+ or UMTS broadband). The maximum possible transfer rates may vary from country to country. According to HSDPA end device categories, transfer rates of up to 337.5 Mbps are possible.

HTTP – Hypertext Transfer Protocol

Protocol for data/file transfer of text, image, audio or video files within an IP-based network or via the Internet. The http protocol is used to transmit single frames of the MJPEG video sequence from IP cameras, for example.

-> IP camera, MJPEG

Indoor station

Call station and accessory for use indoors as duplex call station for the door area (door station) outdoors. All hardware-based Access call stations for indoors (AHT/V, AHF/V, AVP) are regarded as indoor stations. However, computers or smartphones which can provide a similar range of functions through the use of the relevant client software or app are not included in this definition.

IP camera

Network (video) camera which provides a retrievable video image in the digital form of a video stream via the IP protocol in an IP-based network or Internet. IP cameras can be remotely configured via network access and offer a user-dependent extended range of functions as well as security functions for convenient video surveillance. The network bandwidth required to transmit the video stream depends on the camera's single frame resolution and frame rate as well as the video compression method used. To access the video stream, the relevant URL of the IP camera must be known. An URL contains the information with which the video stream of an IP camera can be reached in the network and generally contains an IP address or host name, as well as further-reaching information about the video stream.

KNX standard – Konnex standard

Globally accepted bus standard (bus system) for building automation, where the device control (KNX bus system) and the power supply (230 V AC) are operated separately from one another in two networks. Both networks can be installed independent from one another or in parallel in the building. The individual components are controlled via the control network (KNW bus system) by means of a telegram which contains the relevant control commands. KNX is sold by various providers as a building automation solution.

LAN – Local Area Network

Local Area Network Network which connects the system components. The term LAN is used to make a relative classification/distinction between wired, non-public (private) and/or locally-operated, networks and other networks.

-> WAN, WLAN

Latency time (delay time)

Technically-limited time difference (delayed response time) of technical devices in an IP-based network (Internet) between the initiated query and the response (answer) received by the remote station awaiting response. The following requirements apply to the Access system:

- Maximum 50 ms delay in one direction (one-way delay)
- Maximum 100 ms overall delay
- Packet loss < 1%
- Maximum 20 ms jitter (variation)

In IP-based networks, an excessive latency time can result in a noticeable service delay and malfunctions through to non-availability of individual or several devices/systems.

Licences

Activated usage right on the Access server, the scope of functions of which is provided by the relevant licence. An Access user licence is required for standard operation of the Access server. The relevant application licences are included in the scope of supply of the Access system for operation of the Access indoor stations. Additional device types/functions are activated via optional application licences. For details see the Access licences chapter (For detailed information, see page 60).

LTE Advanced – Long Term Evolution Advanced

Advanced 4th generation LTE mobile network standard (also called LTE Max). According to the standard, transfer rates of up to 1000 Mbps are envisaged. Currently transfer rates of up to 300 Mbps are offered. LTE is being continually expanded in Germany. The maximum possible transfer rates depend on method and expansion and may vary from country to country.

-> 4G (LTE-Advanced)

14 Glossary

MAC address – Media Access Control address

Twelve-character hexadecimal hardware address organised in pairs (e.g. 1A-2B-3C-4E-5F-66) of an internal or external network adapter/network-capable device interface (computer, router, etc.) for wireless and/or wired network connection (also called Ethernet address, Ethernet ID, air-port ID or Wi-Fi address). The MAC address can be used as a basis for automatic configuration of devices connected to an IP-based network and is used by various network protocols (e.g. DHCP). In theory, the MAC address of a network-capable device should be globally unique and it was regarded as a unique identifier within a network. The preset MAC address of a network adapter itself cannot be changed. However, the MAC addresses to be communicated can be changed as desired by software or created at random using existing device functions (e.g. smartphones) in order to prevent unique identification or to use replacement devices with the same ID. The MAC address also contains the manufacturer code as a six-character prefix.

MJPEG – Motion JPEG

Process (video codec) for single frame compression of a video sequence to be transmitted, which is used on network cameras. MJPEG is a process used to compress the content of the single frames. The video stream is transmitted in JPEG-compressed single frames via the HTTP protocol.

Multicast

An information and communication technology type of point-to-multipoint connection for efficiently sending data via a multicast IP address. Information is sent from the source just once, duplicated in the IP-based network and automatically forwarded to all the pre-determined recipients. This relieves the load on the sending network components (e.g. server) as the duplication and distribution of the sent information takes place via the distribution components (e.g. multicast-capable switches). All distribution components within a network must be multicast-capable. Access is multicast-capable.
-> Unicast

NAT – Network Address Translation

Network address translation method for automatic replacement of address information in data packets with other information, to connect various networks (e.g. private and public IP-based network). For each established connection, the requester's connection information and the destination are stored so that the answer can be assigned to the right requester. In the public IP-based network, the private network address of the requester is not known. NAT is required in IPv4 networks due to the existing shortage of IPv4 addresses. Private networks receive just one public network address instead of several. There are two different NAT methods. NAT is also used within an IP-based network for the internal separation or connection of several private networks with different network address spaces.

NTP – Network Time Protocol

Synchronisation protocol which synchronises the time within IP-based networks and the Internet. NTP is realised via decentral and synchronised time servers which are located on the Internet. Without a central time server, time differences could arise between devices in IP-based networks. Significant time differences can lead to malfunctions within IP-based networks.

Operating manual

Current Access system documentation including all changes. In addition, responsible contact partners, regular measures for safeguarding operation and instructions for emergencies can be documented (logbook).

PABX Gateway

Software-based SIP interface of the Access server for connecting a SIP provider account to the Access server via an IP-based network. The Access-side configuration takes place via the administration interface of the Access server. SIP provider accounts link the Access server over the Internet to the VoIP telephony connection of a VoIP provider by means of the Session Initiation Protocol (SIP). Log on as SIP user at a SIP provider with 1 speech channel (TC system, Cloud, ...). In addition, you are given a central overview for configuration of the SIP provider account.
-> SIP user, SIP Client

Push notification service

Service which is used on Siedle systems for signalling incoming calls (door calls, internal calls) to the Siedle app. Signals are sent in one direction only: from the sender (Siedle system) to the recipient (Siedle app) via the push notification service. For this to work, the mobile end device must be able to receive push notifications. The receipt and output of the signals is no longer dependent on the operating state of an app.

PoE – Power over Ethernet

Power over Ethernet supplies an indoor station or another PoE-capable device via the connected network cable. Network-capable devices can be decentrally and individually supplied with PoE injectors or centrally supplied via PoE-capable distribution components (e.g. switches). PoE is divided into various power classes. PoE is standardised according to IEEE 802.3... and is continually developed and improved.

QoS – Quality of Service

Process for determining the transfer behaviour of selected services in networks. With QoS, different network protocols are parametrised in order to influence factors such as bandwidth and transport priority of a network protocol to ensure the required network behaviour. For example, QoS provides high transport priority and bandwidth for the telephony in an IP-based network in order to ensure that it works correctly.

Router

Network components which connect two or more IP-based networks with, if necessary, different network protocols and/or network address spaces and enable data traffic between these networks or even the Internet. A router can also be used within an IP-based network for the internal separation or connection of several private networks with different network address spaces. Routers come in a variety of designs with different equipment versions relating to the range of functions and the security functions.

-> NAT

RTP – Real-Time Transport Protocol

Protocol for continuous and packet-based transmission of real-time sensitive multimedia data streams (audio, video, text, etc.) in IP-based networks. RTP is used with SIP to transport the audio and video streams of the call and is normally operated via the UDP protocol.

-> SIP, UDP

SIP – Session Initiation Protocol

Network protocol for standardised control and implementation of a communication connection (session) between at least two location-independent users in IP-based networks. SIP is used as a protocol in the Access system and IP telephony (VoIP). SIP is internationally accepted.

-> VoIP, SIP Client

SIP Client

Hardware or software-based application which uses the SIP standard for location-independent communication with other SIP-capable applications within IP-based networks. SIP clients include SIP telephones (VoIP) or VoIP apps on mobile phones, for example.

SIP Trunk

Technique (method), and software-based SIP interface of the Access server, for connecting a SIP-capable telephone system with one or more (bundled) speech channels (SIP trunk) to the Access server via an IP-based network. SIP trunks enable connection of the Siedle Access server on the network side to a SIP-capable telephone system provided by the customer. Via a trunk connection, (several) bundled call numbers can be used from the Access server for telephony purposes through the IP-based telephone network. The Access-side configuration takes place via the administration interface of the Access server. To connect a SIP-capable telephone system to the Access server, the trunk connection is established based on the static IP address of the telephone system and the Access server and entirely without SIP account login data.

SIP User (SIP account)

User account which has been created with a VoIP provider and contains the required access and operating data of a VoIP telephony connection of a VoIP telephone connection and is linked to an associated call number. The login data of the user account can be created in the Access server as PABX Gateway in order to log the Access server onto the VoIP telephony connection of a VoIP provider by means of the session initiation protocol (SIP) via the Internet, and thereby be able to make telephone calls.

-> SIP Client, PABX Gateway

Storey call button

The storey call button (ERT) is used to call from a storey door to the indoor device. This can be connected as standard on all Access indoor stations via the right-hand R45 jack (switching input E1 – terminal 3,6) of the indoor station and additionally configured via the administration interface of the Access system.

Switch

Central coupling element and distribution component which links individual network components to an IP-based network and is responsible for forwarding data traffic within the IP-based network (also called a network switch or distributor). Switches come in a variety of hardware-based designs with different equipment versions relating to the range of functions and the security functions.

TCP – Transmission Control network Protocol

Transport protocol for data traffic between network-capable devices (servers, computers, etc.) in IP-based networks. TCP is used for packet-based data transfer in almost all operating systems and is part of the IP protocol for the Internet. For bidirectional data traffic, there must be a connection between the devices.

TCP includes:

- Transport service
- End-to-end control (reliable data transfer)
- Connection management
- Data flow and time control
- Multiplexing connections
- Error handling

Telecom socket RJ45 8/8

Standardised connection unit for network cabling with two eight-pin RJ45 jacks for correct connection of Access indoor stations.

The left-hand jack is used for the LAN network. The storey call button and if applicable the customer's own existing signalling device are connected using the right-hand jack.

TP – Twisted Pair

A TP cable (TP) is a symmetrical copper cable used for data transfer, which consists of two cores (1 core pair) which are twisted around one another. In IP-based networks, cables with four core pairs are normally used. The data transfer takes place in a single direction per core pair. For a data connection 2 core pairs are required (sending and receiving). In the case of higher data transfer standards (e.g. 1000 BASE-T Ethernet) all 4 core pairs are used (2x sending and 2x receiving). TP cables come in various unshielded and shielded designs, each with different core diameters. The performance capability of a TP cable is specified by its category (e.g. Cat 5).

-> Cat. 5

UDP – User Datagram Protocol

Transport protocol for data traffic between network-capable devices (servers, computers, etc.) in IP-based networks. Data transmission used in almost all operating systems and is part of the IP protocol for the Internet. For data traffic, a connection is not necessary between the devices. UDP is a limited-reliability, insecure and unprotected transfer protocol, as no mechanisms are provided for this. In return, UDP uses less transport management data (overhead), thereby creating a lower additional data volume and is characterised by a lower latency time. In contrast to TCP, UDP has a reduced range of functions:

- Transport service
- Multiplexing connections
- Error handling
- UDP is used in voice transmission, as a low latency time is required.

UMTS – Universal Mobile Telecommunications System

-> 3G (UMTS)

Unicast

An information and communication technology type of point-to-point connection for sending data from a sender to a recipient via an IP address. Information is sent from the source to the pre-defined recipient on an individual basis. Standard switches can be used for this type of data transmission. Existing networks without multicast ability do not have to be upgraded. Access is unicast-capable.

-> Multicast

VLAN – Virtual Local Area Network

Closed subnetwork within IP-based networks. A VLAN separates physical IP-based networks into any number of subnetworks. VLAN-capable switches ensure that data packets are only sent within this VLAN and are not forwarded to another VLAN, even though different VLANs can be connected to a shared switch or via several switches. Different methods are available for setting up a VLAN:

- Port-based (old method)
- Static (old method)
- Tagged
- Dynamic

VoIP – Voice over IP

Network protocol for voice, data and video transmission which is used for IP/internet telephony and enables telephony in IP-based stationary and mobile networks. SIP, RTP and UDP are used for VoIP, to name a few. VoIP can only be used with suitable end devices, adapters or software clients. In addition, internal or external VoIP provision (e.g. VoIP provider) is required. Access provides an optional internal VoIP provision.

WAN – Wide Area Network

Wide area network which is designed for voice and/or data transfer over large distances. A WAN (e.g. Internet) covers a large distance and can be used without restrictions for business and private communication. The term WAN serves to make a distinction between the relevant network sizes. The term WAN is used to make a relative classification/distinction between cross region and/or public IP-based networks and other networks.

-> LAN, WLAN

WLAN – Wireless LAN

Wireless local network based on radio, for communication and data transfer between network-capable devices (computer, smartphone, etc.) and, if necessary, the Internet. The data transfer rate is continually being improved with the standard IEEE 802.11... (Gross) data rates of up to 6.9 Gbps are currently possible (IEEE 802.11ac).

The term WLAN is used to make a relative classification/distinction between wireless, non-public (private) and/or locally-operated, IP-based networks and other networks.

-> LAN, WAN, Wi-Fi

Wi-Fi – Wireless Fidelity

Certification for WLAN products based on IEEE standards for ensuring interoperability/compatibility of the various WLAN products from different manufacturers. Wi-Fi-certified products therefore comply with the WLAN standard IEEE 802.11... This is why Wi-Fi is incorrectly used as a synonym for a wireless network (WLAN). Wi-Fi is represented by the Wi-Fi-Alliance which includes all renowned manufacturers of network-capable devices.

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Customer support and customer advice/Siedle centres

Welcome to Siedle!

Qualified contacts are on hand to offer a fast, professional service. By telephone, or if required we will be pleased to visit you on site. Customers and sales partners outside of Germany should contact one of our international representatives.

The current overview broken down according to regions is located in the download area on www.siedle.com/contact

After-sales service

Services and information

Siedle website
www.siedle.com

**Access Certified Partner
near to you**

www.siedle.en/acp

SSS SIEDLE

S. Siedle & Söhne
Telefon- und Telegrafengeräte OHG

Postfach 1155
78113 Furtwangen
Bregstraße 1
78120 Furtwangen

Telefon +49 7723 63-0
Telefax +49 7723 63-300
www.siedle.de
info@siedle.de

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