

B. Central units

B.1. Central units

Central unit of the voice, control and monitoring system MULTISWITCH 4032

Including all software and hardware features as set out in the previous general system description. The following digital subscriber instruments must be able to be hooked up to the central unit described:

- Stations for different applications, both UPN and S0 variants such as
 - Office stations
 - Integrated stations
 - Door entry stations
 - Vandalism-proof stations
 - Radio communications stations
 - Weight and explosion-proof industrial stations
 - Foil terminals for operating rooms at hospitals
 - Stations for judges in legal courts
 - Stations for emergency calls in elevators
 - Control center stations with up to 112 keys
 - etc.
- System interfaces such as
 - Contact cards with 16 inputs each
 - Relay cards with 16 relays each
 - Combined contact and relay cards 8 inputs/8 outputs
 - Cards with RS232/422/485 ports
 - Low frequency coupling and decoupling
 - 100V output cards
 - Cards for digital and analog radio connections
 - Voice storage
- Standard ISDN terminals
 - commercially available ISDN telephones (DSS1)
 - DECT ISDN terminals (DSS1)
 - ISDN cards in PCs (DSS1)
 - ISDN server for transmitting video images
- Comfortable voice mail and voice storage systems with caller navigation and automatic speech recognition
- Connection of ISDN telecom systems and ISDN DECT systems as sub-systems; the configuration of the S0 subscriber line as an ISDN system line must be possible.

Furthermore, there is the option of connecting the central unit to a public or private ISDN network via corresponding S0 exchange connections. These S0 exchange connections can also be used to network several central units with one another or via an ISDN network.

In addition, there must be the option to integrate a VoIP gateway into the system, providing support for VoIP instruments (H323) from a combined data/voice network. The VoIP gateway is provided for easily networking several central units via a data network.

The programming of all central units functional requirements in the network is carried out via a program with a Windows GUI which can also be used for remote maintenance. In addition, it is possible to program all features via a console-based application by directly dialing into the central systems in the network from a computer running Windows or the LINUX operating system.

Central unit in 19" frame:

Required setup:

- .. subscribers with UPN interface
- .. subscribers with S0 bus
- .. exchange lines with S0 bus
- .. open or closed conferences
- .. group calls
- .. background music channels
- storage of 32 call-back requests per subscriber
- Clock time module and power supply 230V, 50Hz



Required maximal setup with central unit:

- up to 32 subscribers with UPN interface
- up to 16 subscribers with S0 bus
- up to 2 exchange lines with S0 bus
- up to 48 open or closed conferences
- up to 48 group calls
- up to 48 background/music channels
- Storage of 32 call-back requests per subscriber

Required directory functions:

- call-back request list for each subscriber
- call list for each subscriber
- individual list for each subscriber
- complete subscriber list



System expansion options by network integration via ISDN, VoIP gateway, Ethernet or direct support of up to 6,000 subscribers.

The software features for the central unit (all call, relay functions, etc.) are available in unrestricted form for all subscriber lines.

Central unit of the voice, control and monitoring system MULTISWITCH 4064

Including all software and hardware features as set out in the previous general system description.

The following digital subscriber instruments must be able to be hooked up to the central unit described:

- Stations for different applications, both UPN and S0 variants
such as
 - Office stations
 - Integrated stations
 - Door entry stations
 - Vandalism-proof stations
 - Radio communications stations

Weight and explosion-proof industrial stations
Foil terminals for operating rooms at hospitals
Stations for judges in legal courts
Stations for emergency calls in elevators
Control center stations with up to 112 keys
etc.

- System interfaces such as
 - Contact cards with 16 inputs each
 - Relay cards with 16 relays each
 - Combined contact and relay card 8 inputs/8 outputs
 - Cards with RS232/422/485 ports
 - Low frequency coupling and decoupling
 - 100V output cards
 - Cards for digital and analog radio connections
 - Voice storage
- Standard ISDN terminals
 - commercially available ISDN telephones (DSS1)
 - DECT ISDN terminals (DSS1)
 - ISDN cards in PCs (DSS1)
 - ISDN server for transmitting video images
- Comfortable voice mail and voice storage systems with caller navigation and automatic speech recognition
- Connection of ISDN telecom systems and ISDN DECT systems as sub-systems; the configuration of the S0 subscriber line as an ISDN system line must be possible.

Furthermore, there is the option of connecting the central unit to a public or private ISDN network via corresponding S0 exchange connections. These S0 exchange connections can also be used to network several central units with one another or via an ISDN network.

In addition, there must be the option to integrate a VoIP gateway into the system, providing support for VoIP instruments (H323) from a combined data/voice network. The VoIP gateway is provided for easily networking several central units via a data network.

The programming of all central units functional requirements in the network is carried out via a program with a Windows GUI which can also be used for remote maintenance. In addition, it is possible to program all features via a console-based application by directly dialing into the central system in the network from a computer running Windows or the LINUX operating system.

Central unit in 19" frame:

Required setup:

- ... subscribers with UPN interface
- ... subscribers with S0 bus
- ... exchange lines with S0 bus
- ... open or closed conferences
- ... group calls
- ... background music channels
- storage of 32 call-back requests per subscriber

- Clock time module and power supply 230V, 50Hz

Required maximal setup with central unit:

- up to 64 subscribers with UPN interface
- up to 32 subscribers with S0 bus
- up to 6 exchange lines with S0 bus
- up to 48 open or closed conferences
- up to 48 group calls
- up to 48 background/music channels
- Storage of 32 call-back requests per subscriber

Required directory functions:

- call-back request list for each subscriber
- call list for each subscriber
- individual list for each subscriber
- complete subscriber list

System expansion options by network integration via ISDN, VoIP gateway, Ethernet or direct support of up to 6,000 subscribers.

The software features for the central unit (all call, relay functions, etc.) are available in unrestricted form for all subscriber lines.

B.2. Accessories for central units

Compact housing with 7 dimension units

Completely closed housing in light-weight construction for the mounting of 19"-frame with six dimension units

Measurements (height x width x depth):
345 x 520 x 320 mm

Accessories:
Swivel frame 34-SR

34-KG 7



Swivel frame

Wallmount for compact housing, swivelling to both sides

Scope of supply:
Wall bracket including swivel arm with mounting material and cable pull relief

Measurements (height x width x depth):
230 x 560 x 370 mm

Weight:
14 kg

34-SR

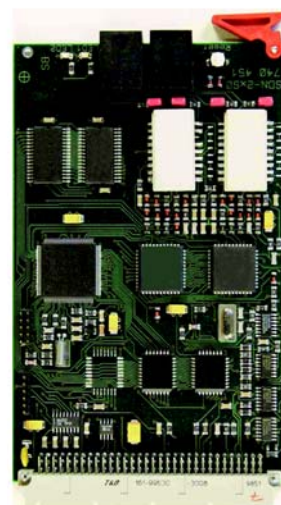
Exchange card with 2 S0 base connections

AK4000-2S0

For the expansion of multiswitch central units by 2x S0 ISDN exchange lines for operation at a point-to-point connection as private branch exchange connection or at a point-to-multipoint connection as multiple connection to operate several terminals in a private or public ISDN network, for a VoIP gateway or to network multiswitch central units.

- Short-circuit proof, surge-protected
- Easy servicing, plug-in component for central office housing in EuroStyle format.

The software features related to unrestricted networking are available for all exchange lines.



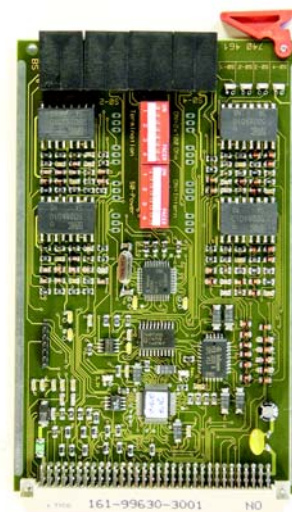
Subscriber card with 4 S0 subscriber lines

TA4000-4S0

For the expansion of multiswitch central units by 4x S0 subscriber lines each providing the operation modes point-to-point connection (private branch exchange connection) or point-to-multipoint connection (multiple connection) to connect terminals, private branch exchanges or to centrally network multiswitch central units with one another. Each line can be individually configured.

- Short-circuit proof, surge-protected
- Four-wire cable to terminals at a distance of max. 1000 meters as point to point connection.
- For connecting several terminals in point-to-multipoint mode holding 4-wire bus cabling of max. 100 meters in length, 2 MSNs programmable for each S0 bus.
- Easy servicing, plug-in component for central unit housing in EuroStyle format.

The software features for the system are available in unrestricted form for all subscriber lines.



Subscriber card with 8 UPN subscriber lines

TA4000-8UPN

For the expansion of multiswitch central units by 8x UPN subscriber lines each in the operation mode point-to-point connection for connecting UPN equipment. Each line can be individually configured.

- Short-circuit proof, surge-protected
- Two-wire cable to terminals at a distance of max. 1,000 meters
- Easy servicing, plug-in component for central unit housing in EuroStyle format.

The software features for the system are available in unrestricted form for all subscriber lines.

