

U7-series 19"-signalling system

Alarm processing in larger intercommunication systems

Performance characteristics:

- Modular 19" system can be extended to over 1000 alarms
- Supply voltage and alarm voltage 24 – 220V
- Potential separation of all circuits
- LED-display per alarm
- Marker strip connectable to transparent window
- Integrated test and acknowledgement push-button
- Subrack with prewired, ready-to-connect rear PC-board
- All international alarm sequences optional

System description

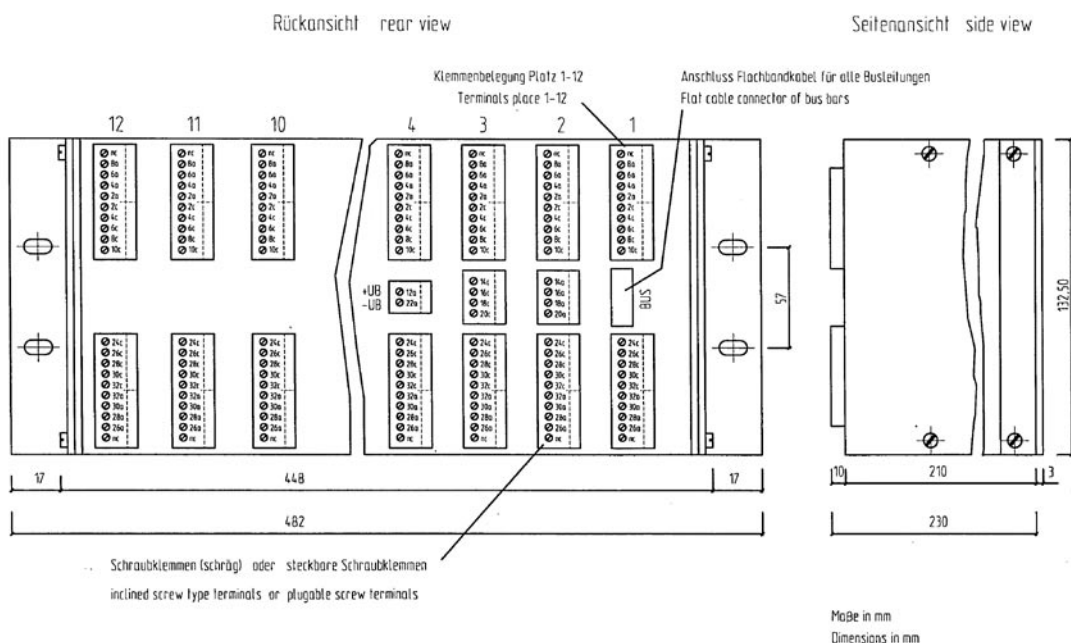
The **U7 Series** consists of a single or several prefabricated subracks of 42 or 84 module width and a height of 3HU and 19" plug-in cards of 7 module width front plate. The plug-in cards have a 32-D plug and can be used in any slot. The U7 series is a highly dependable fault signalling unit for use in severe ambient conditions such for as high voltage switching stations and power plants. The U7 series is mainly used as an emergency signalling system in parallel to the control equipment. The ready-to-connect rear PC-board is equipped with screw terminals or optionally pluggable terminals and has 6 or 12 slots. In this way from 8 to well over 1000 alarms are possible through easy stage-by-stage enlargement. The system's internal connection of the individual modules is carried out by means of **FBK 07** premanufactured ribbon cable. The external wiring is limited to the alarm inputs, the supply voltage and the outputs for lamp fields or parallel displays by means of the terminals on the subrack.

System components

Subrack

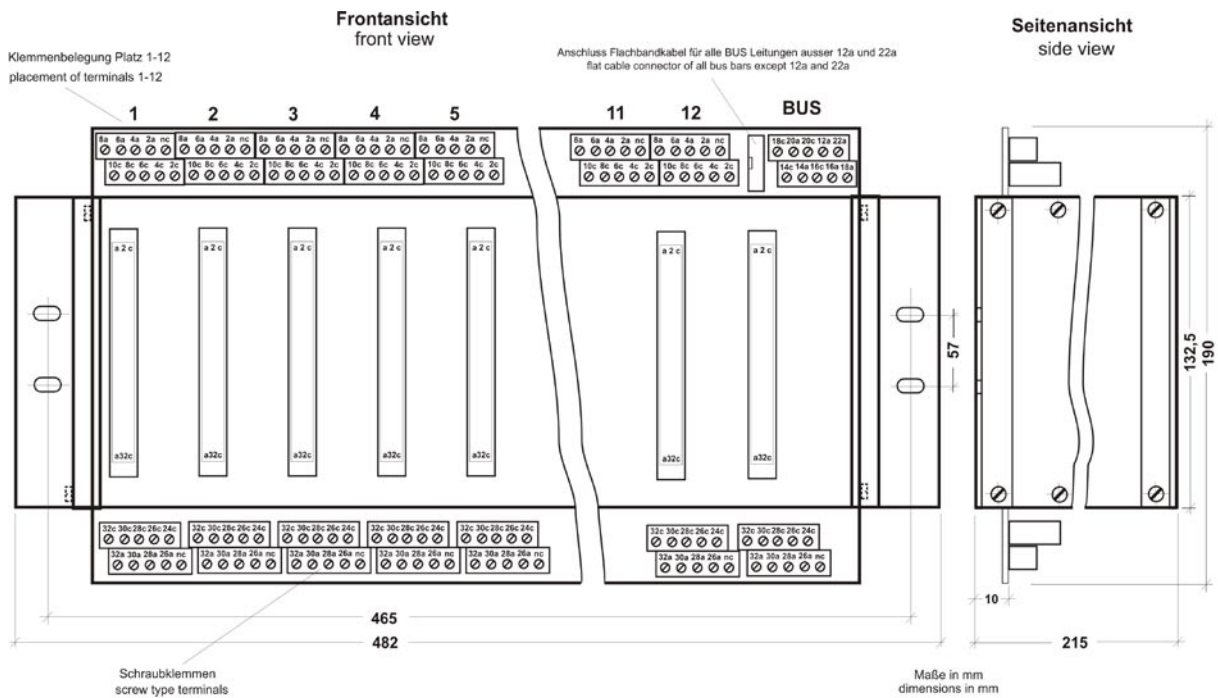
The subracks can be obtained in several versions:

item number	Mounting	Width in module width	Slots
64U7BTMP06	Mounting plate	42	6
64U7BTMP12	Mounting plate	84	12
64U7BTSR061	Swing frame	42	6
64U7BTSR601	Swing frame	84	6
64U7BTSR121	Swing frame	84	12
64U7BTSR121A	Door mounting with bezel	84	12



48 module width subrack for fitting in swing frame

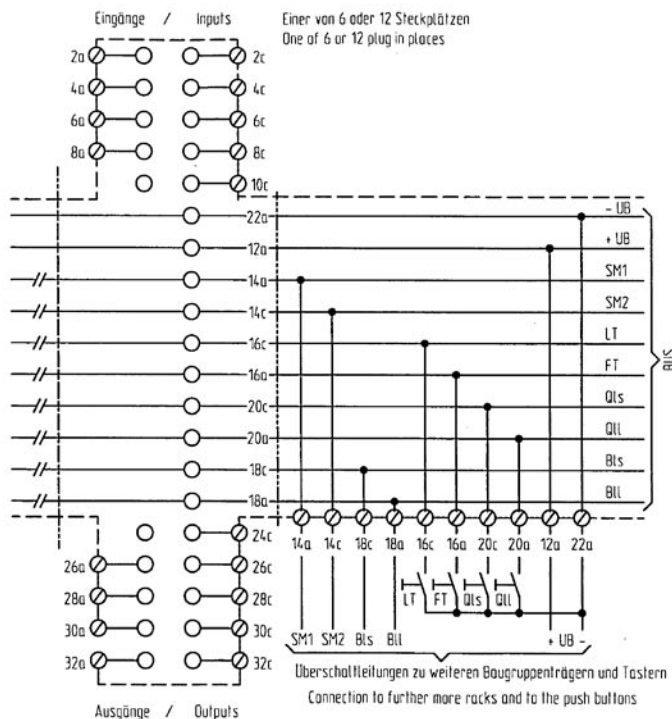
For 42 module width the following dimensions are valid: * 252 ** 270



Baugruppenträger für Montageplattenaufbau
carrier rack for mounting plate

For 42 module width the following dimensions are valid: *

- Anschluss des Steckverbinders nach DIN 41612 320
Pin of the connector type DIN 41612 320
- ⊗ Schraubklemme
Screw type terminal
- // Sockel für Flachbandkabel-Verbindung
Socket for ribbon cable connection
- UB Versorgungsspannung Power supply
- +UB Versorgungsspannung Power supply
- SM1 Sammelleitung 1 Collective report bus bar 1
- SM2 Sammelleitung 2 Collective report bus bar 2
- LT Lampentest Lamp test
- FT Funktionstest Funktion test
- QIs Quittung Blinklicht schnell Acknowledgement rapid flashing
- QIL Quittung Blinklicht langsam Acknowledgement slow flashing
- BIs Blinkschiene schnell Rapid flashing rail
- BIL Blinkschiene langsam Slow flashing rail



BUS im Baugruppenträger zu allen Steckplätzen durchverdrahtet
 BUS within the rack wired via pc-board to all plug-in places

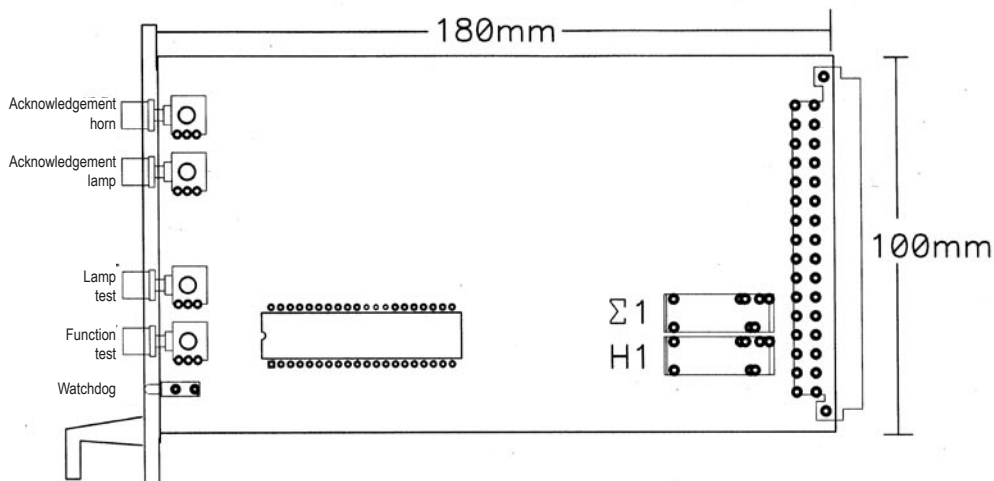
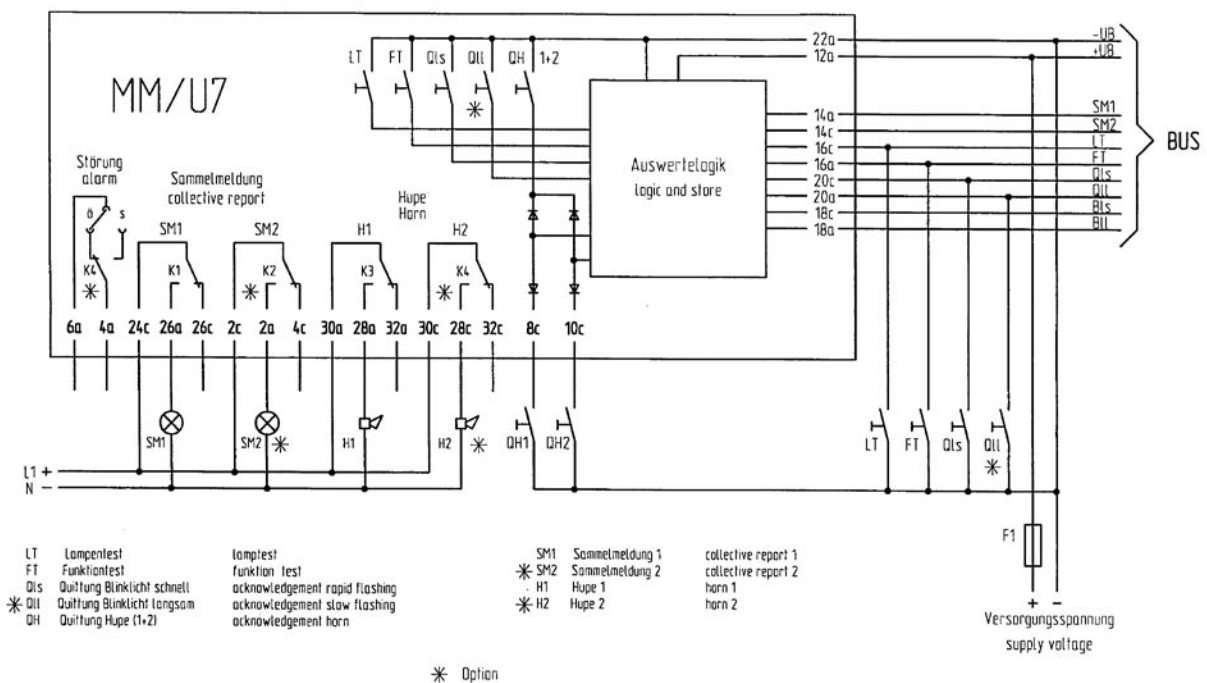
Subrack Terminals

Basic module MM/U7

The basic module is only needed in the system once and contains generation of the flashing frequency, the horn relay and collective report relay as well as the test and acknowledgement push-button for lamp test, acknowledgement of horn, acknowledgement of lamp and functional test. An automatic horn acknowledgement after a given time lapse is available as option. The following functions are available in the standard version:

- 1 frequency alarm flashing display in accordance with DIN 19235
- Horn retriggerable after acknowledgement by every new incoming alarm
- Collective report relay activated until acknowledgement and extinction of the last existing alarms.

Other sequences are possible on demand in accordance with all international standards as well as other optional functional sequences by means of jumpers.

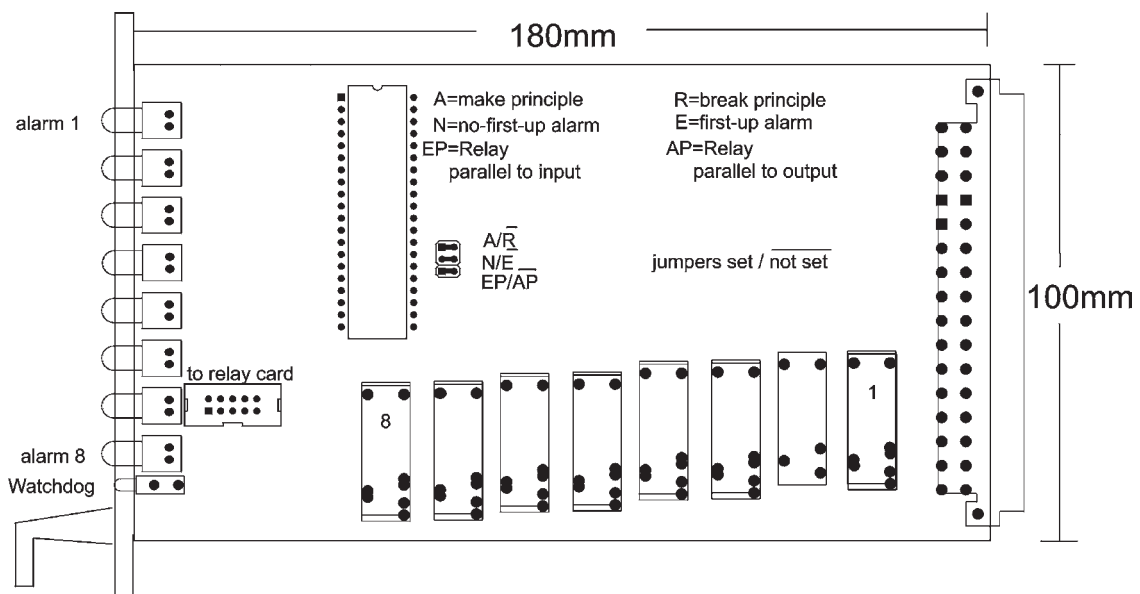
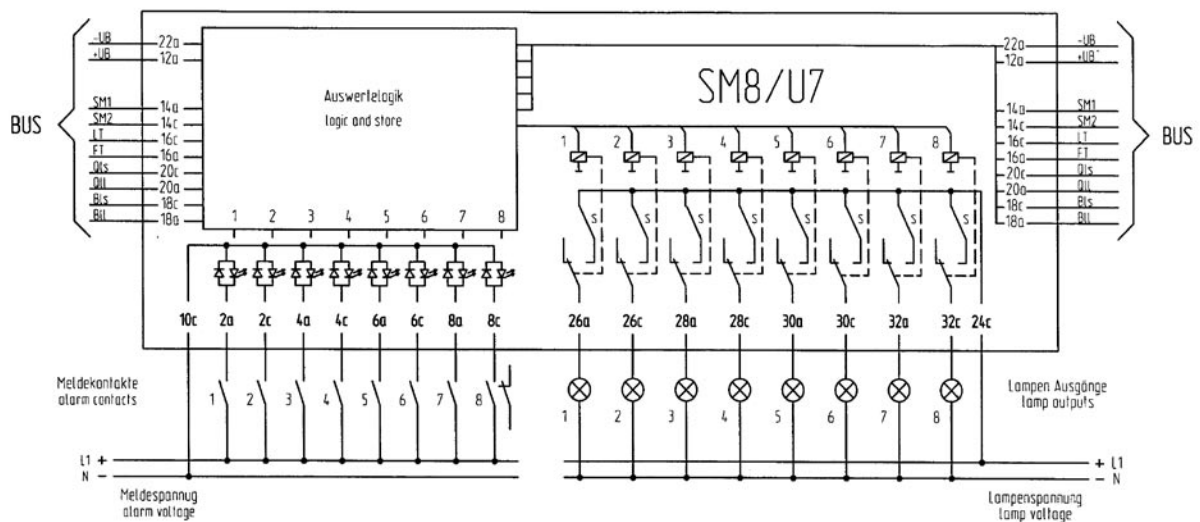


Signalling module SM8/U7

The SM8/U7 signalling module processes 8 alarms, that are each represented by a relay output and an integrated LED display on the front panel. The relay outputs come with NO-contacts as standard and can for example be used for controlling parallel tableaus. A change into the input parallel function - as contact for the central control equipment - is possible by means of jumpers.

The following functional parameters are alterable by means of jumpers:

- Make or break input principle of the alarm inputs (per card)
- No first up / First up alarm sequence (per card)
- Relay output contact as NO-contact controlled parallel to the flashing signal display or to the alarm input.

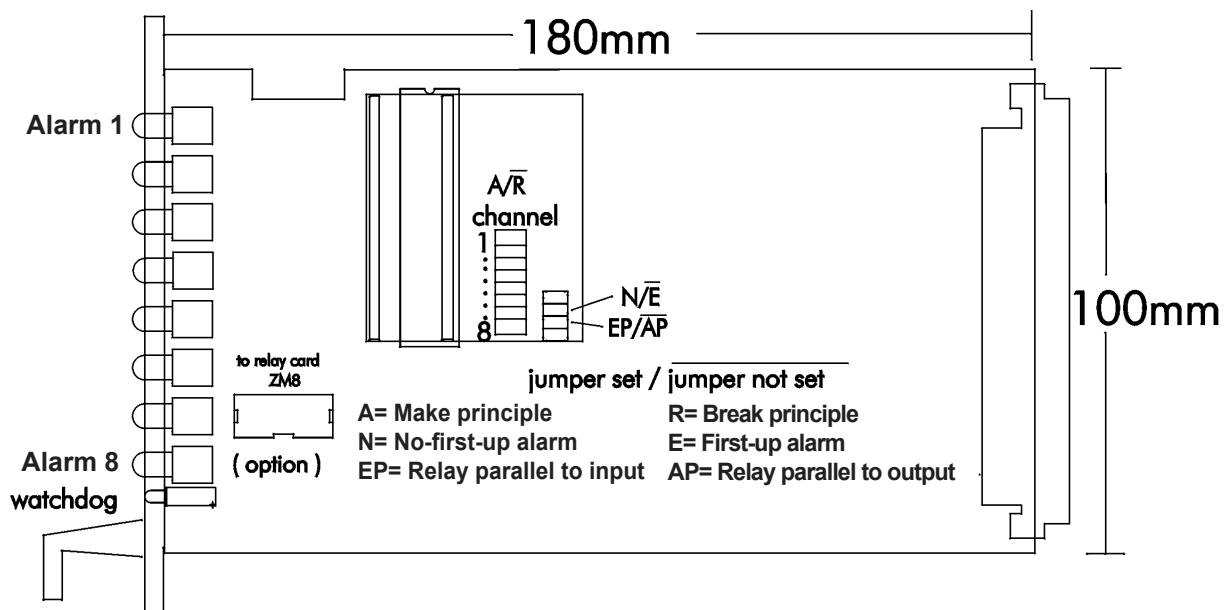


Signalling module SM8-A/R-U7

The signalling module is a modification of the above named module SM8/U7 and enables the choice between make or break input principle per input. For this the motherboard is equipped with an additional card on which the selection can be made by means of jumpers.

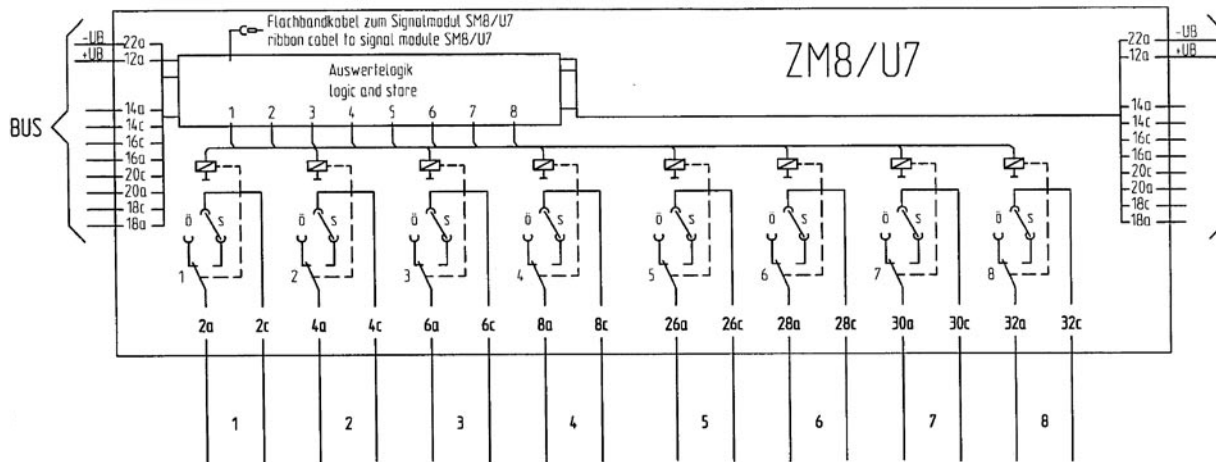
Make principle – jumper set

Break principle – jumper set on one side.

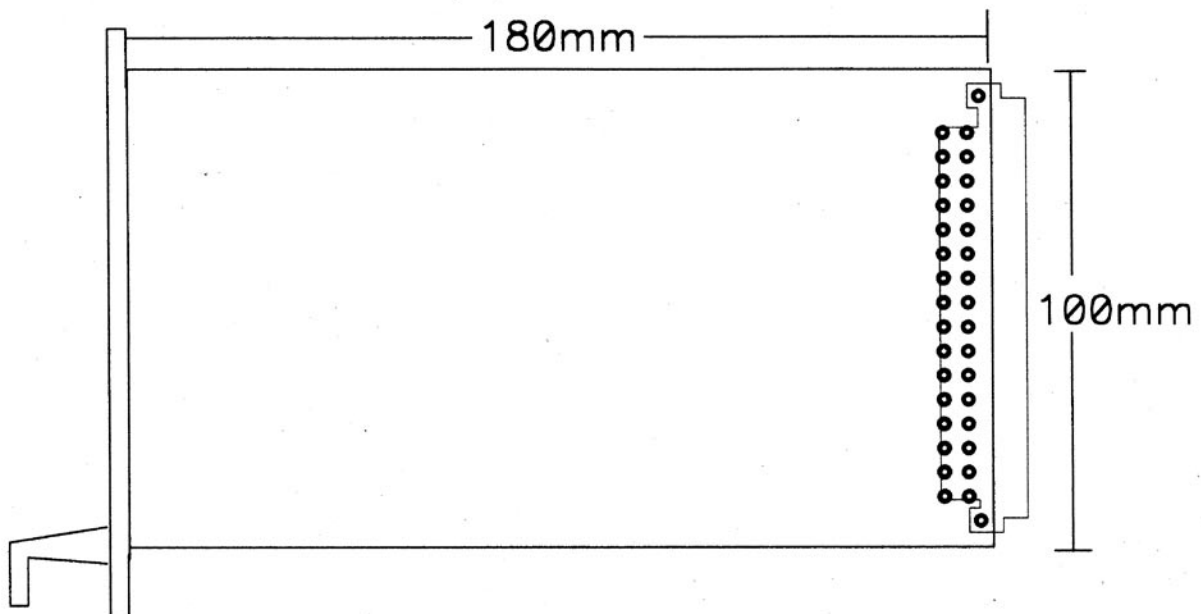


Relay module ZM8/U7

This card serves the extension of the signalling module relay contacts with 8 change over contacts (1 set per input). Each relay is switchable between opening and closing functions. The connection to the signalling module is by means of the ribbon cable.

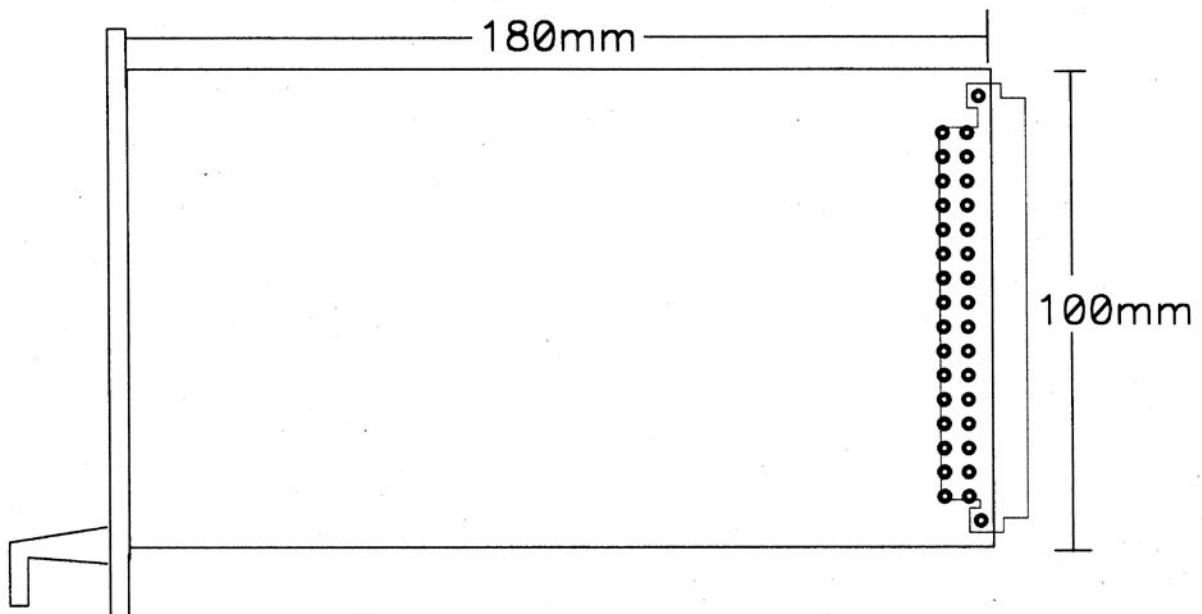
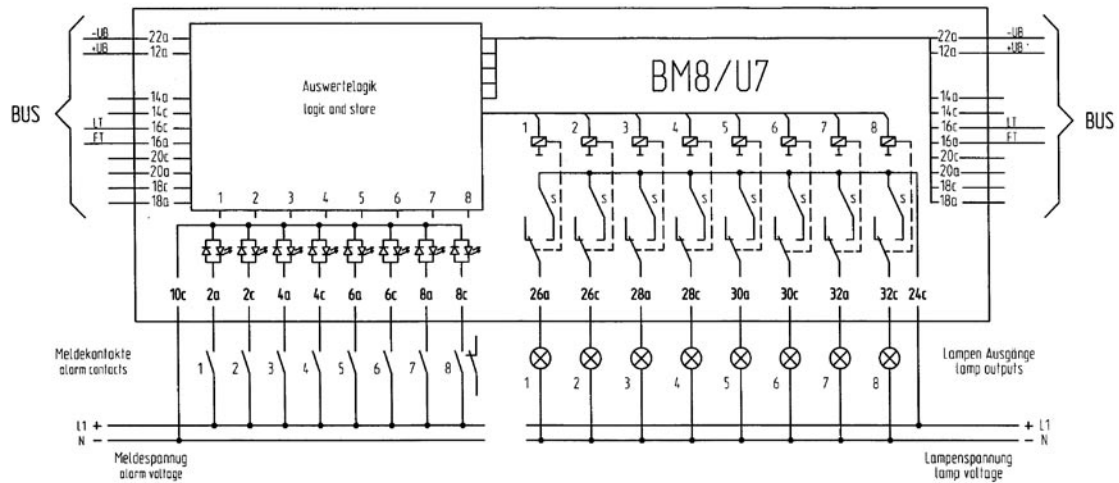


Ausgänge (ZLT)
outputs (ZLT)



Operation signalling module BM8/U7

This relay card is used for display and relay of operation signals through electrically isolated contacts.



Accessories

Dummy front panel BPA 07 of 7 module width for covering spare places, front bezel for indoor mounting, ribbon cable for connecting of the individual modules. Other options on request.

Power supplies

Mains adapters and DC/DC converters for voltage translation can be found in the corresponding catalogue group.

Technical Data

Basic module MM/U7						
Operating voltage	24V DC ± 20 %	48V DC ± 20 %	60V DC ± 20 %	110V DC ± 20 %	125V DC ± 20 %	220V DC ± 20 %
Current input	30mA + 20mA per relay	30mA + 12mA per relay	30mA + 9mA per relay	30mA + 7mA per relay		
Flashing frequency	1-frequency approx. 2 Hz 2-frequency approx. 2 Hz fast / 1 Hz slow					

Signalling module SM8/U7 and SM8-A/R-U7						
Operating voltage	24V DC ± 20 %	48V DC ± 20 %	60V DC ± 20 %	110V DC ± 20 %	125V DC ± 20 %	220 V DC ± 20 %
Current input	250mA	max. 150mA			max. 60mA	
Signal voltage	24V AC/DC ± 20 %	48V AC/DC ± 20 %	60V AC/DC ± 20 %	110V AC/DC ± 20 %	125V AC/DC ± 20 %	220V AC/DC ± 20 %
Input current	approx. 3mA					
Switch on delay	approx. 50 ms					
Contacts	1 x NO or NC (gold covered)					

Relay module ZM8/U7						
Operating voltage	24V DC ± 20 %	48V DC ± 20 %	60V DC ± 20 %	110V DC ± 20 %	125V DC ± 20 %	220V DC ± 20 %
Current input	30mA + 20mA per relay	30mA + 12mA per relay	30mA + 9mA per relay	30mA + 7mA per relay		
Contacts	1 x NO or NC (gold covered)					

Operation signalling module BM8/U7						
Operating voltage	24V DC ± 20 %	48V DC ± 20 %	60V DC ± 20 %	110V DC ± 20 %	125V DC ± 20 %	220V DC ± 20 %
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Signal voltage	24V AC/DC ± 20 %	48V AC/DC ± 20 %	60V AC/DC ± 20 %	110V AC/DC ± 20 %	125V AC/DC ± 20 %	220V AC/DC ± 20 %
Input current	approx. 3mA					
Switch on delay	approx. 50ms					
Contacts	1 x NO or NC (gold covered)					

General Data

Operating and ambient temperature	-10° ... + 50°C non-condensation
Storage temperature	- 20° ... + 70°C non-condensation
Relative humidity	max. 75% mean of year (group F DIN 40040)
Load capacity of relay contacts	24V to 250V AC 2A 24 V DC 2A 110V DC 0,3A 220V DC 0,15A
Insulation voltage	all circuits 4kV / 50Hz / 1min
Electro-magnetic compatibility	ESD 4/8 kV; EFT (Burst) 2 kV/1kV; Surge 0,5 kV
Duty cycle	100%
Subrack weight	2,5kg
plug-in card weight	0,25kg
Noise immunity	EMC - tested to EN 61000-4-2,4,5

The right to make technical changes is reserved.



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