

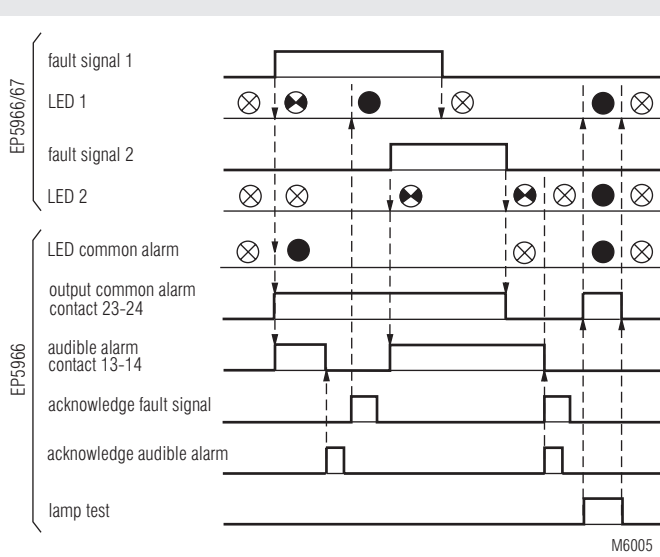


- New fault annunciation with single frequency flashlight according to DIN 19 235
- Expandable from 16 up to 160 inputs
- in 2 groups of 8 inputs selectable:
 - open circuit operation
 - closed circuit operation
- Input voltage up to max. AC/DC 240 V
- Delayed inputs
- Exchangable front for individual scale
- Removable terminals
- Flush mounting
- Frame 72 x 144 mm

EP 5966:

- 16 inputs in control unit
- Output relay for common signal and audible alarm
- Built in and external connected pushbuttons for lamp test (LT), acknowledgement of horn (QH) and of alarm (QS)
- Extension module with 16 inputs

Function Diagram



Approvals and Markings



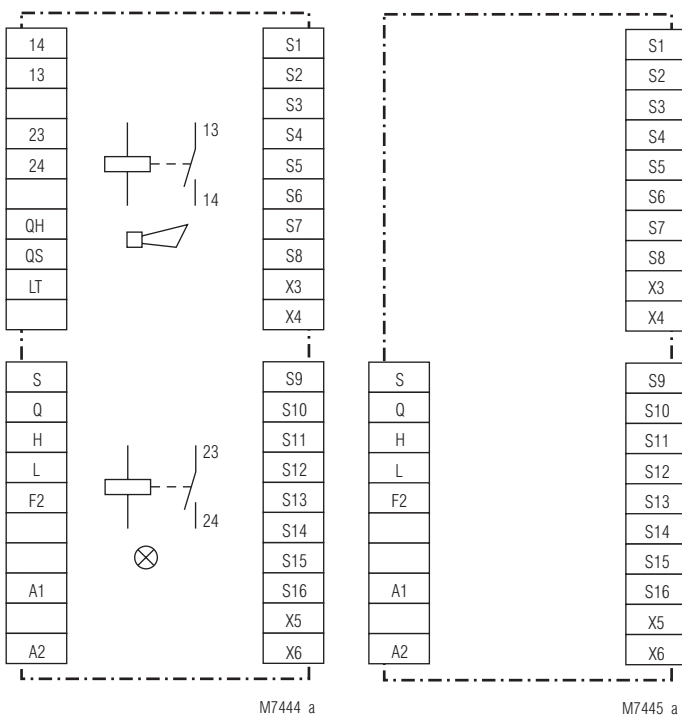
Applications

Monitoring of industrial plants and buildings

Function

The unit EP 5966 controls the system and includes the common alarm output for all connected extension modules EP 5967. For audible alarm as well as for common alarm 2 relay outputs (NO) are available. The acknowledgement (QH and QS), as well as the lamp test (LT) can be effected through built in and external pushbuttons. The pushbutton lamp test (LT) is for the checking of the LED's in the control unit and the subsequent extension modules. The associated common alarm output contact 23-24 will be closed.

Circuit Diagrams



On EP 5966 and 5967 open circuit operation or closed circuit operation can be selected by bridging terminals X3/X4 or X5/X6 for 2 groups of 8 inputs. To avoid unnecessary fault signalling an operate delay of 1 s, 3 s or 10 s to the inputs is available.

The fault annunciator lamps can be marked by the customer on an attached label. Spare labels for EP 5966 and EP 5967 are available. Extension modules can be mounted in neighbour cabinets. The distances of the panels should not be bigger than 10 m. In this case the connection cable must be screened. The screen has to be grounded on both sides.

Indication

One LED for each signal
EP 5966 with additional LED for common alarm

Notes

The inputs for the control signals as well as the inputs for programming (open circuit / closed circuit) are **not** protected against false connection to mains voltage. The inputs are not galvanic separated from the supply voltage. At DC units 0 V must always be connected to A2. When configured for NC signal inputs, the inputs not used, must be connected to high level.

Technical Data

Input

Auxiliary voltage U_H (A1, A2): AC 24, 42, 110, 127, 230 V

| Special voltages ¹⁾ : | EP 5966 | EP 5967 |
|----------------------------------|-----------------------|-----------------------|
| DC 48 V: | 270 Ω / 8 W | 330 Ω / 8 W |
| DC 60 V: | 390 Ω / 8 W | 510 Ω / 8 W |
| DC 110 V: | 1.0 k Ω / 20 W | 1.2 k Ω / 20 W |
| DC 127 V: | 1.2 k Ω / 20 W | 1.5 k Ω / 20 W |
| DC 220 V: | 2.4 k Ω / 35 W | 2.7 k Ω / 35 W |

¹⁾ Special voltages with series dropresistor (5%) on terminal A1. The fault annunciators are made for the special voltage and cannot be adapted to other voltages by changing series resistors.

| | |
|---------------------------------------|-----------------------------------------------------------------------------------------|
| Voltage range: | 0.8 ... 1.1 U_N |
| Nominal consumptions | |
| EP 5966: | approx. 5 VA |
| EP 5967: | approx. 5 VA |
| Nominal frequency: | 50 / 60 Hz |
| Min. time for input signal: | \geq 100 ms + operate delay |
| Min. time for acknowledgement: | \geq 200 ms |
| Input voltage (S1 ... S16): | AC/DC 24 ... 60 V AC/DC 110 ... 240 V AC/DC 12 ... 30 V (only at $U_H =$ DC 12 V) |

Output

| | |
|---------------------------------------------|--------------------------------------|
| Operate delay t_v: | 1 s, 3 s, 10 s |
| Thermal current I_{th}: | 3 A |
| Switching capacity | |
| to AC 15: | 3 A; AC 230 V IEC/EN 60 947-5-1 |
| Electrical life | IEC/EN 60 947-5-1 |
| to AC 15 at 3 A, AC 230 V: | 5 x 10 ⁵ switching cycles |

General Data

| | |
|-------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operating mode: | Continuous operation |
| Temperature range: | - 20 ... + 50°C |
| Clearance and creepage distances | |
| rated impulse voltage / pollution degree: | 4 kV / 2 IEC 60 664-1 |
| EMC | |
| Electrostatic discharge: | 4 kV (air) IEC/EN 61 000-4-2 |
| HF-irradiation: | 10 V / m IEC/EN 61 000-4-3 |
| Fast transients: | 2 kV IEC/EN 61 000-4-4 |
| Surge voltages | |
| between wires for power supply: | 2 kV IEC/EN 61 000-4-5 |
| between wire and ground: | 4 kV IEC/EN 61 000-4-5 |
| Interference suppression: | Limit value class B EN 55 011 |
| Degree of protection | |
| Housing: | IP 40 IEC/EN 60 529 |
| Terminals: | IP 20 IEC/EN 60 529 |
| Housing: | Thermoplastic with V0-behaviour according to UL subject 94 |
| Vibration resistance: | Amplitude 0.35 mm IEC/EN 60 068-2-6 frequency 10 ... 55 Hz |
| Climate resistance: | 20 / 050 / 04 IEC/EN 60 068-1 |
| Wire connection: | 2 x 1.5 mm ² solid DIN 46 228-1/-2/-3/-4 1 x 1.5 mm ² or 2 x 0.75 mm ² stranded wire with sleeve DIN 46 228-1/-2/-3/-4 |
| Wire fixing: | Box terminals with self-lifting wire protection, removable flush mounting |
| Mounting: | |
| Weight | |
| EP 5966: | 520 g |
| EP 5967: | approx. 480 g |

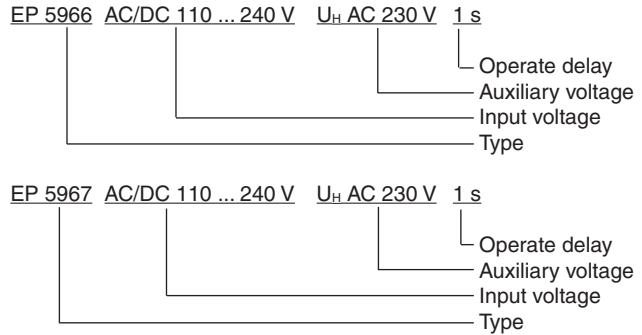
Dimensions

| | |
|--------------------------------|-------------------------------------------|
| Width x heigth x depth: | 72 x 144 x 134 mm |
| Front panel cut-out: | 66 ^{+0.7} x 138 ⁺¹ mm |

Standard Types

| | | | |
|-----------------------------|-------------------|---------------|-----|
| EP 5966 | AC/DC 24 ... 60 V | U_H DC 24 V | 1 s |
| Article number: | 0041660 | | |
| • Input voltage: | AC/DC 24 ... 60 V | | |
| • Auxiliary voltage U_H : | DC 24 V | | |
| • Operate delay: | 1 s | | |
| • Frame: | 72 x 144 mm | | |
| EP 5967 | AC/DC 24 ... 60 V | U_H DC 24 V | 1 s |
| Article number: | 0041662 | | |
| • Input voltage: | AC/DC 24 ... 60 V | | |
| • Auxiliary voltage U_H : | DC 24 V | | |
| • Operate delay: | 1 s | | |
| • Frame: | 72 x 144 mm | | |

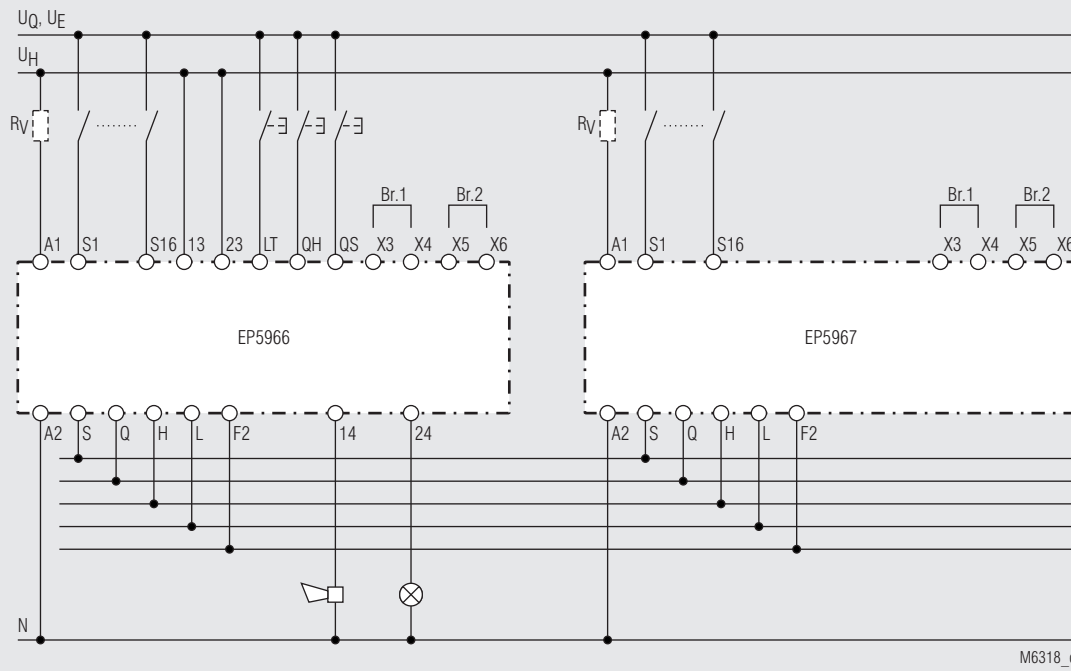
Ordering examples



Accessories

| | |
|--------------------------------|--------------------------------|
| Spare indication label: | EP 5966-0-1, Art.-No.: 0048909 |
| | EP 5967-0-1, Art.-No.: 0050771 |
| Spare transparent front sheet: | EP 5966-10, Art.-No.: 0048738 |

Connection Example



S1 - S16 Inputs
 LT Lamp test
 QH Acknowledge audible alarm
 QS Acknowledge fault signal
 13/14 Relay contact audible alarm
 23/24 Relay contact common alarm
 UQ Control voltage of the acknowledge inputs
 UE Control voltage of the inputs

with bridge X3 / X4 or X5 / X6 n.o. circuit operation
 without bridge X3 / X4 or X5 / X6 n.c. circuit operation

