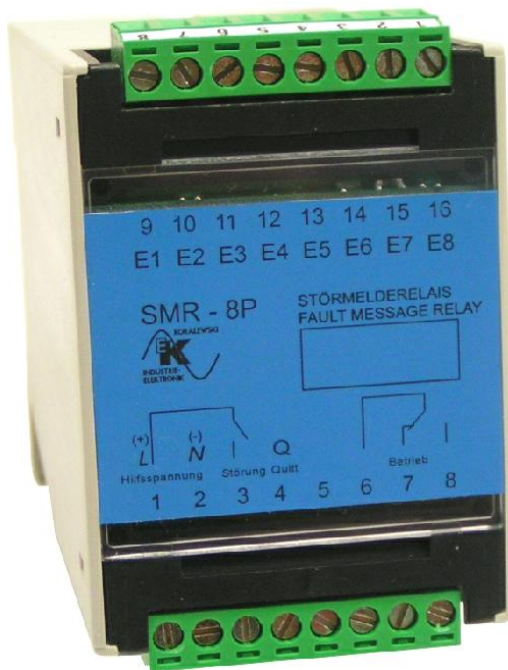


-90 -80 -70 -60 -50 -40 -30 -20 -10

-10

-20

Fault Indication Relay SMR-8P



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1 General remarks

The fault indication relay SMR-8P is a collective error signalling component for switchgear and controlgear. It provides 8 independent error inputs, a phase-assigned switching output for a signal lamp as well as a neutral change-over contact to emit the collective fault signal to a control centre or an alarm signal horn.

The fault indication relay SMR-8P contains a coding switch, which enables the working method of each single fault indicator input to be set. The SMR-8P is available as an 230 V AC and 24V DC variant. Adaptations are possible, if required by customer.



Note: If more than 8 error inputs are required, this can be implemented with the fault indication relay SMRG-4 and the SME-12 extension components. This enables a maximum of 52 error inputs (see description SMRG-4).

2 Principle of function

If an error is detected, the yellow LED above the concerned input starts to flash rapidly until the fault indicator delay time of 2 seconds has expired.

After the delay time has expired, the indicator light connected to terminal 3 (relay K1 with potential) flashes and the K2 operating relay releases (green operating LED off). The yellow LED above the fault indicator concerned input concerned flashes slowly.

Once the fault has been acknowledged, the operating relay picks up again and the indicator light connected to terminal 3 as well as the yellow LED above the fault indicator input are lit continuously. The indicator light stays lit until all faults have been acknowledged and rectified. The yellow LED over the fault indicator input goes out, when the fault has been acknowledged and the fault indication is no longer present.

If the cause of the disturbance has been rectified before the fault is acknowledged, the indicator light and the yellow LED continue to flash until the fault is acknowledged.

Generating of new fault value as per DIN 19235:

If a new fault occurs whilst a fault that has already been acknowledged is still present at another input, the operating relay releases once more and the indicator light flashes again.

Internal coding switches enable the declaration to be made for each input on whether it works in the closed-circuit or open-circuit principle. The coding switches DIP1...DIP8 are assigned to the inputs E1...E8 (see illustration below).

Open circuit principle

The input, of which the coding switch is set to OFF, works in open circuit principle.

If no signal is present at the concerned input, this is not assessed as a fault. First the edge of an upcoming signal generates an error message.

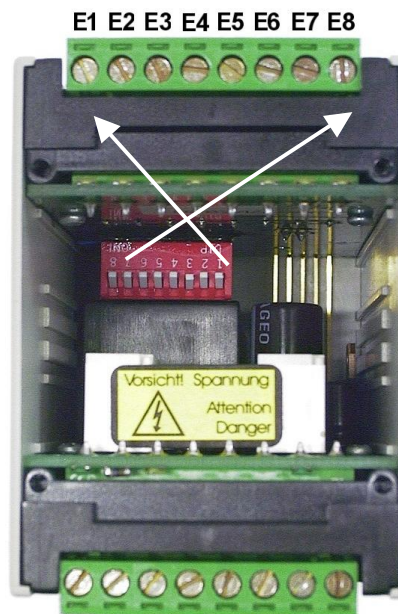
Closed circuit principle

The input, of which the coding switch is set to ON, works in closed circuit principle.

If a signal is present at the concerned input, this is not assessed as a fault. First the edge triggered by fail of the signal generates an error message.



Note: A non-assigned input with closed-circuit coding constantly reports a fault.



10

Behaviour on return of mains

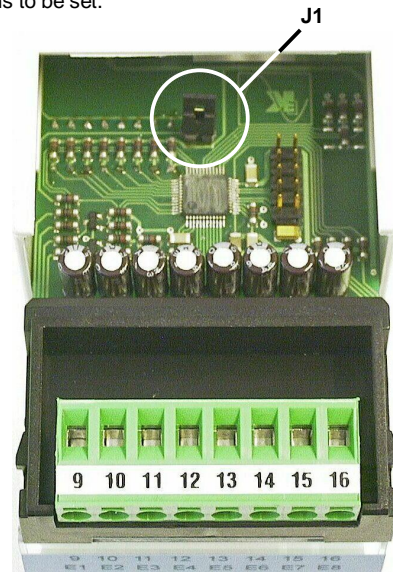
Devices from serial number 29506 on are equipped with a jumper (J1), which enables the behaviour of the fault indication relay on return of mains to be set.

Jumper J1 opened:

If no error message is present after power failure, the operating relay picks up again automatically. A new value message takes place, if an error signal is present.

Jumper J1 closed:

The operating relay remains released, the fault indicator light, connected to terminal 3, flashes and the LEDs above the fault indicator inputs remain unlit, if no error message is present after power failure. A new value message takes place and the yellow LED above the concerned input flashes slowly, if an error signal is present.



3 Setting of coding switches



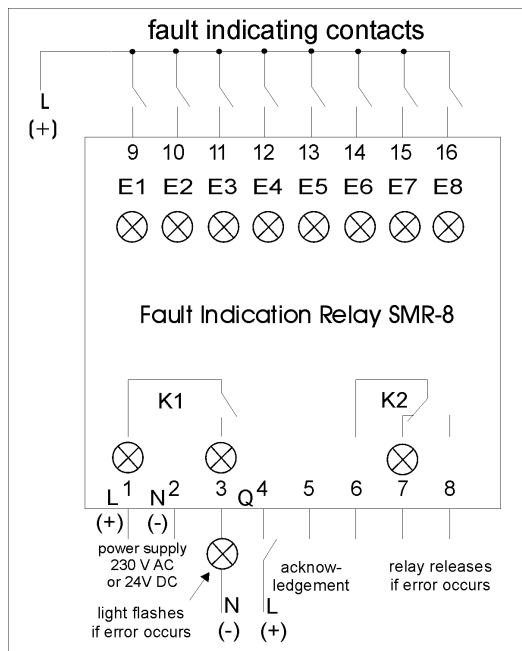
Attention! Before opening of the casing lid, the device has to be completely disconnected and at zero potential.

Input	Coding switch (DIP-Switch)	Ex works setting	User setting
E1	1	OFF	
E2	2	OFF	
E3	3	OFF	
E4	4	OFF	
E5	5	OFF	
E6	6	OFF	
E7	7	OFF	
E8	8	OFF	





4 Pin configuration

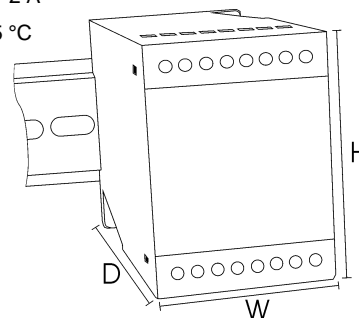


5 Technical data



**Mounting and first commissioning only by qualified personnel.
Electrical connection in accordance to VDE 0160.**

Operating voltage:	230 V AC, +/- 10%	24 V DC (19 ... 34 V)
Power consumption:	approx. 4 VA	approx. 3 W
Inputs:	230 V AC / 50 Hz / 0,2 mA	5 mA
Input detection:	from approx. 170 V AC	from approx. 12 V DC
Delay time:	approx. 2s	approx. 2s
Relay outputs:	230 V AC / 50 Hz / 2A	24 V DC / 2 A
Ambient temperature:	-20 ... 55 °C	-20 ... 55 °C
Housing dimensions:	W / H / D : 55 x 75 x 110 mm (35 mm – standard bar) incl. terminals: height 86 mm	

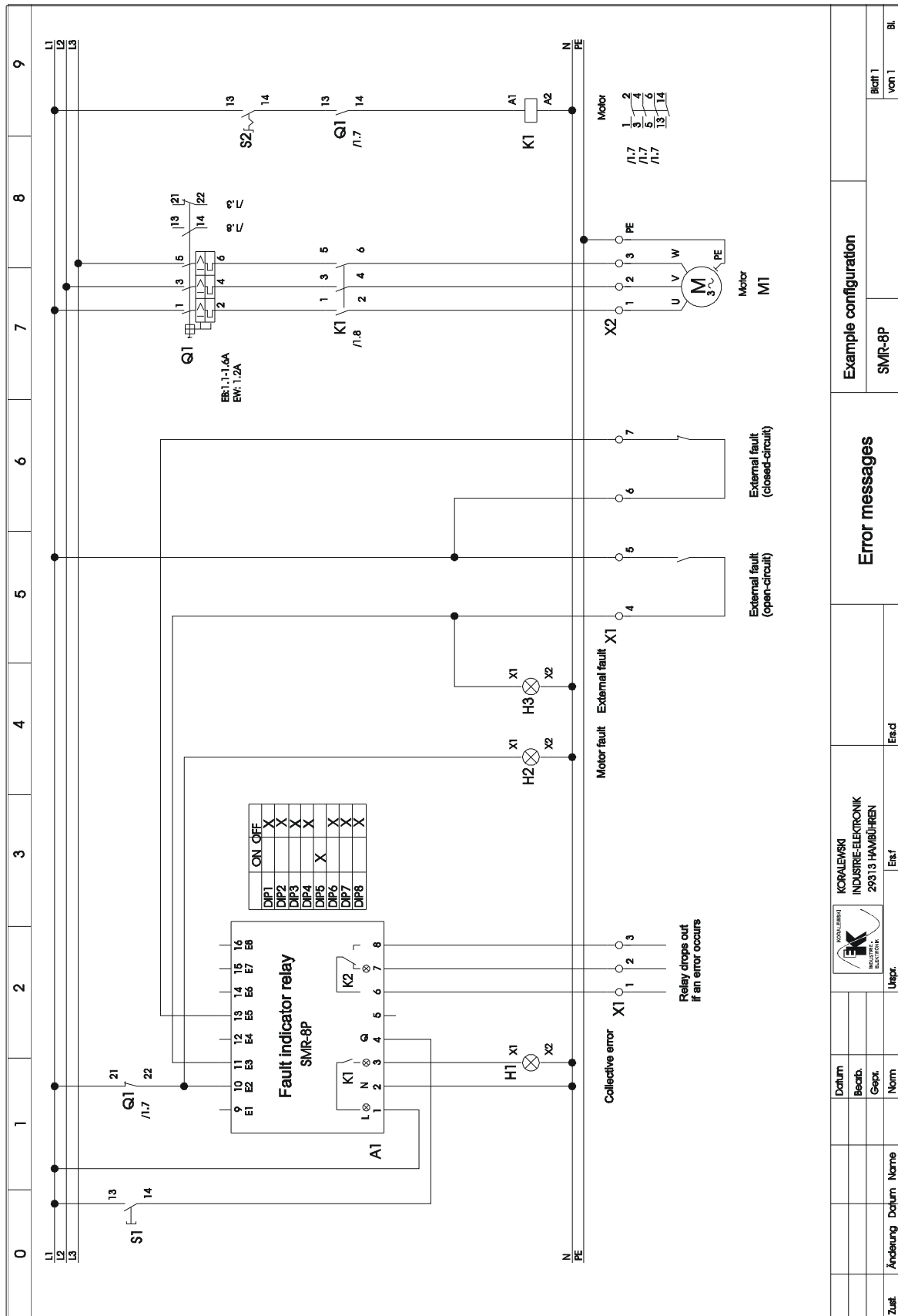


5.1 Ordering information

Fault Indication Relay SMR-8P	Part number
230 V AC – version:	E1547
24 V DC – version:	E1548



6 Connection example for the 230V AC variant



Zust.	Änderung	Datum	Name	Norm	Gepr.	Bearb.	Datum	Urspr.	Ers.f	Ers.d	Error messages	Example configuration		
												SMR-8P	Blatt 1	
													von 1	Bl.