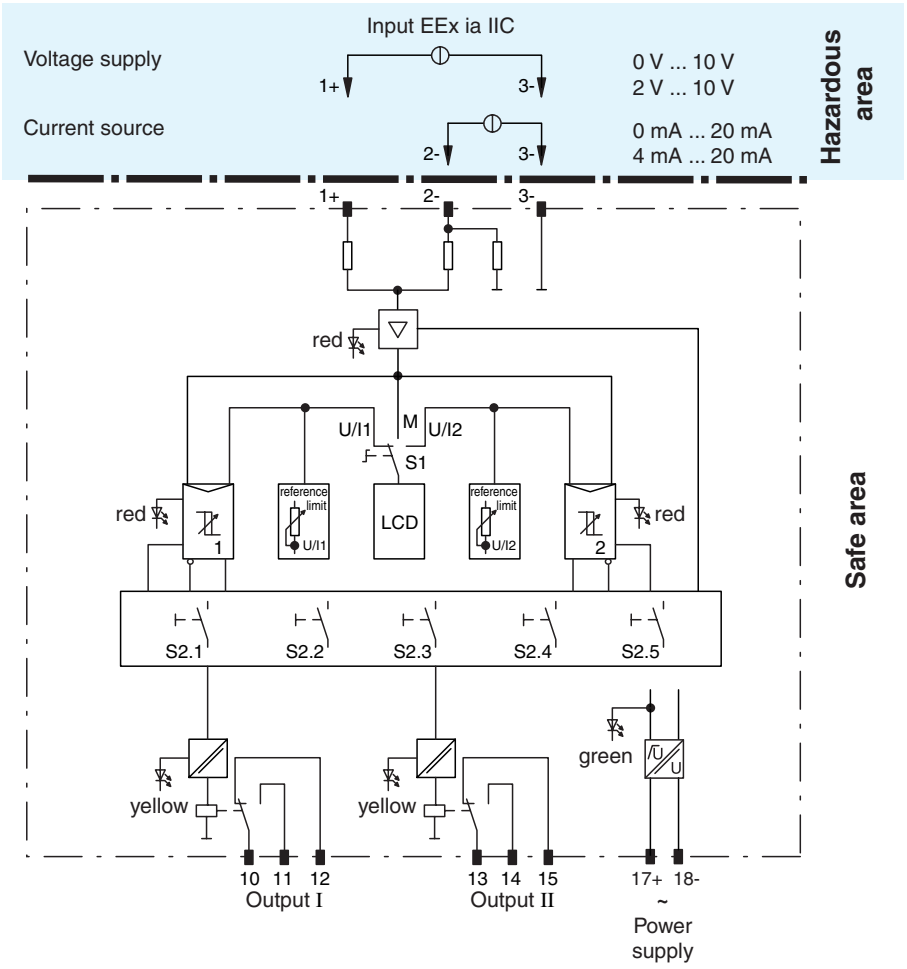
230 V AC, 0 mA ... 20 mA or 0 V ... 10 V

- 1-channel
- Input EEx ia IIC
- 2 switching points operate on 2 output relays
- High/low alarm can be selected for each switching point
- Mode of operation of the relay adjustable separately
- Hysteresis 1 % ... 10 % of measuring range
- Lead breakage monitoring (can be deactivated)
- 3 1/2-digit LC-display for switching points and actual value
- All operating and indicator elements on the front side

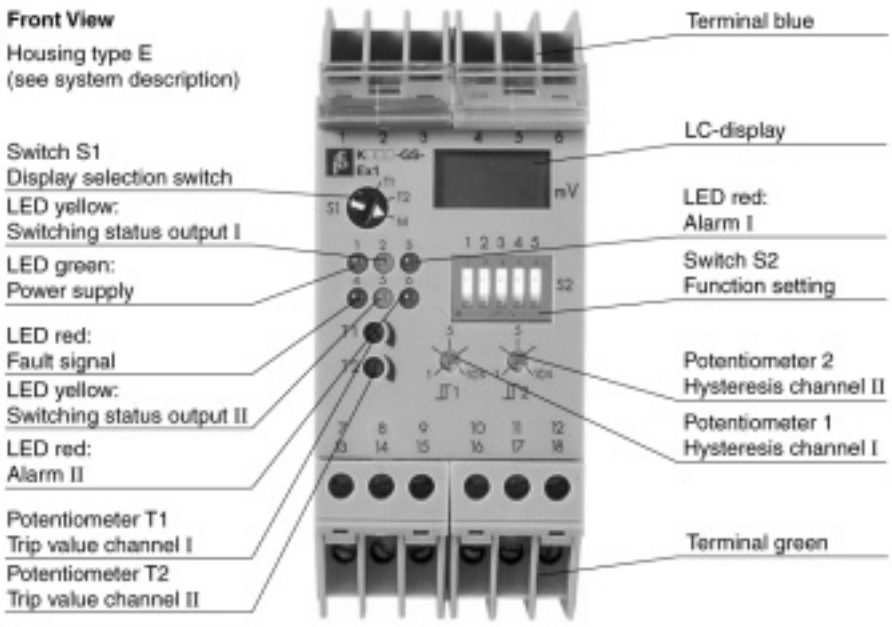
Discontinued type

Function

The trip amplifiers are used in measurements of current or voltage. High alarm indicates that the alarm is activated when a limit is exceeded and is reset when another limit is not met. The hysteresis which is the difference between these values, is adjustable. Low alarm means that the alarm is tripped when a limit is not reached. The input is safely isolated from the outputs and power supply per DIN EN 50020.



Composition



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Supply			
Connection			terminals 17, 18
Rated voltage			85 ... 253 V AC
Ripple			-
Power consumption			2 W
Input			
Connection			terminals 1+, 3-
Current			0 ... 20 mA , input resistance 50 Ω
Voltage			0 ... 10 V , input resistance 100 kΩ
Output			
Output I			limit value 1: terminals 10, 11, 12
Output II			limit value 2: terminals 13, 14, 15
Contact loading			253 V AC, 2 A, cos φ > 0.6
Mechanical life			2 x 10^7 switching cycles
Transfer characteristics			
Deviation			LC-display, 0.2 % / K of measuring value + 1 digit
Temperature			switching point: 0.015 % / K of measuring range display: 0.01 % / K of measuring range
Influence of supply voltage			not measurable
Input delay			80 ms (rise time and energising delay of relay)
Electrical isolation			
Input/Output			safe electrical isolation acc. to EN 50020
Input/Power supply			safe electrical isolation acc. to EN 50020
Output/Power supply			available
Standard conformity			
Coordination of insulation			acc. to DIN EN 50178
Electrical isolation			acc. to DIN EN 50178
Electromagnetic compatibility			acc. to EN 50081-2 / EN 50082-2
Climatic conditions			acc. to DIN IEC 721
Directive conformity			
Electromagnetic compatibility			standards
Directive 89/336/EG			on request
Ambient conditions			
Ambient temperature			-25 ... 60 °C (248 ... 333 K)
Mechanical specifications			
Protection degree			IP20
Mass			approx. 250 g
Data for application in conjunction with hazardous areas			
EC-Type Examination Certificate			PTB No. Ex-93.C.2072 ; for additional certificates refer to the approval list
Voltage	U_0		15,5 V DC
Current	I_0		1,2 mA
Power	P_0		4,6 mW
Type of protection [EEx ia]			
Explosion group		IIB	IIC
External capacitance		0,97 µF	0,24 µF
External inductance		15 mH	2,5 mH
Type of protection [EEx ib]			
Explosion group		IIB	IIC
External capacitance		2,1 µF	0,546 µF
External inductance		1000 mH	1000 mH
Supply			
Safety maximum voltage U_m			253 V AC
Electrical isolation			
Input/Output			safe electrical isolation acc. to EN 50020
Input/Power supply			safe electrical isolation acc. to EN 50020
Safety parameter			
CSA control drawing			LR 36087-8

Notes

LC-display

Reference or actual values are indicated in % of the measurement range.

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LC-display selector switch

With switch S1 it is possible to select, which value (actual or reference value) is indicated on the LC-display.
S1 in Pos. T1: switch point 1 (reference value or limit value 1)
S1 in pos. T2: switch point 2 (reference value or limit value 2)
S1 in pos. M: actual value

Potentiometer T1, T2

By means of the potentiometer T1 or T2 the switch points or limit values are adjusted.
T1: Adjustment of switch point 1 (reference value or limit value 1)
T2: Adjustment of switch point 2 (reference value or limit value 2)

Potentiometer ⎍1 and ⎍2

The potentiometer ⎍1 and ⎍2 serve for hysteresis adjustment of the individual switch points in a range of 1 % ... 10 % (K***-GS-Ex1) or 0.1 % ... 1 % (KFD2-GS-Ex1.LZ) related to the measurement value
⎍1 hysteresis switch point 1 (reference value or limit value 1)
⎍2 hysteresis switch point 2 (reference value or limit value 2)

DIP switch S2

Switch	Position	Function
S2.1	OPEN	High alarm output I
	-	Low alarm output I
S2.2	OPEN	Relays closed on alarm state
	-	Relays open in alarm state
S2.3	OPEN	Lead breakage monitoring off
	-	Lead breakage monitoring on
S2.4	OPEN	High alarm output II
	-	Low alarm output II
S2.5	OPEN	Relays closed on alarm state
	-	Relays open in alarm state

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