

Limit switch

GS 80



Description

Limit switches GS80 are suitable for a lot of measuring tasks. 2- and 3-wire transmitters as well as active power supplies with 0 / 4 mA ... 20 mA signal can be connected.

Two relays and an active 0/4 mA ... 20 mA current output are available as outputs.

The relay contacts can be integrated in security relevant circuits. The switch points of the relays are derived from the transmitter signal or the signal of a connected power source.

The current output is freely scaleable.

The input has a lead breakage and short circuit monitoring.

The device is operated via the control surface on the front panel.

Features

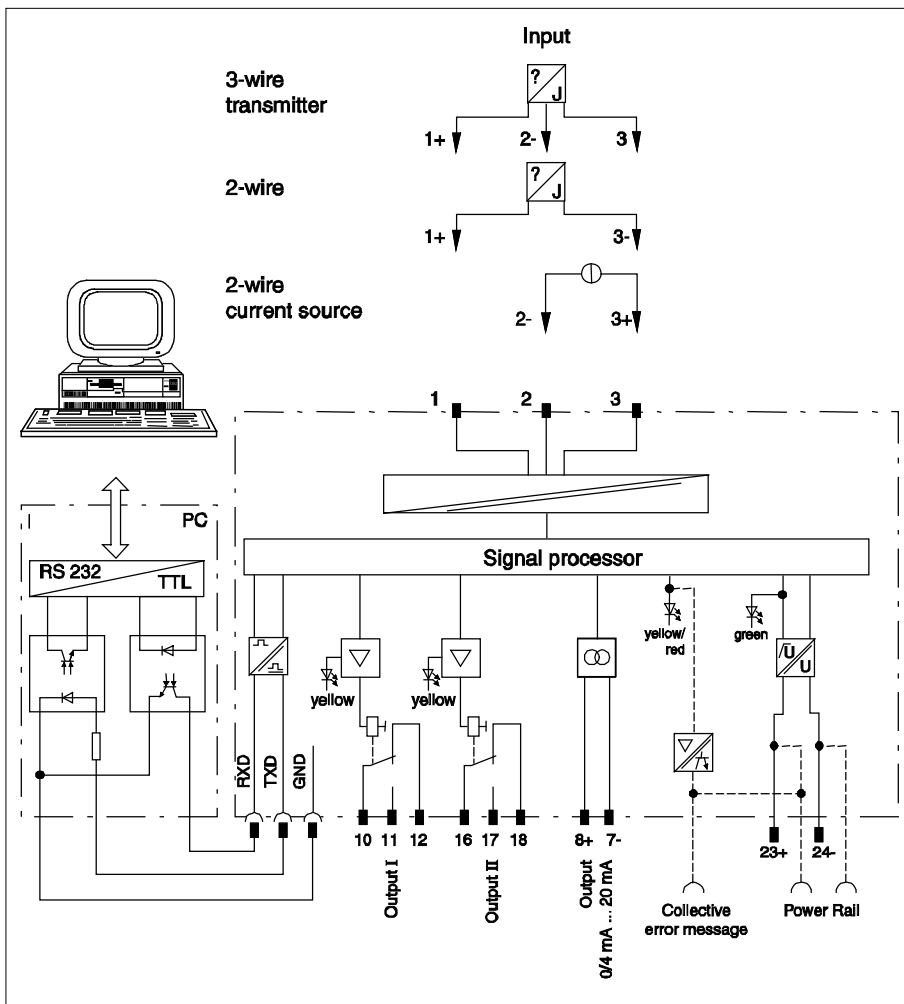
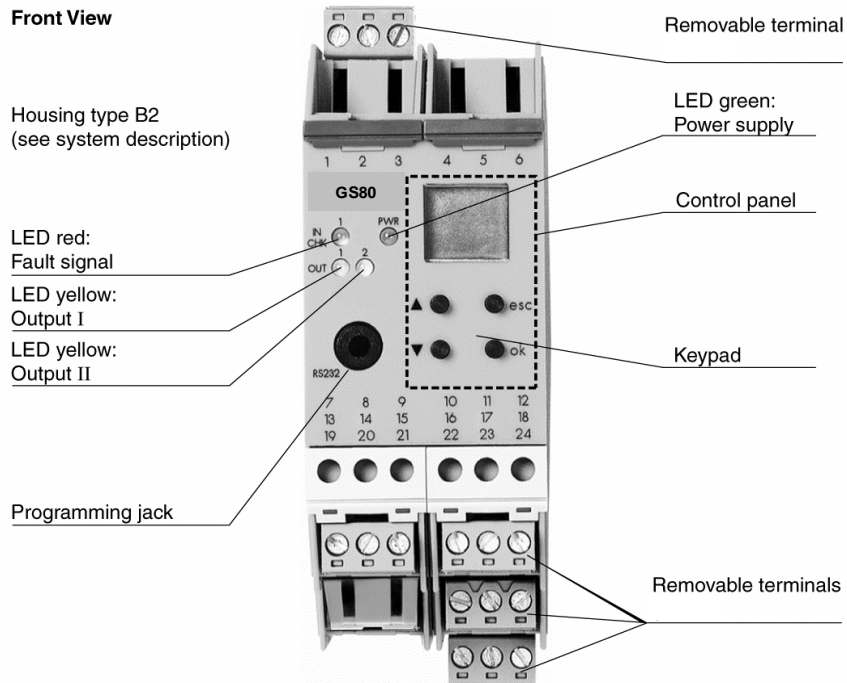
- 1-channel
- Analogue input 0/4 mA ... 20 mA
- 2 relay outputs
- Multi-Range power supply 20...90VDC / 48...253VAC
- Usable up to SIL 2 acc. to IEC 61508
- Each relay output individually parameterisable as high or low alarm or error message output
- Lead breakage (LB) monitoring and short-circuit (SC) monitoring
- Parameterisation control panel

Model: GS 80

Technical data

Model	GS80		
Supply	Connection	Power Rail or terminals 23+, 24-	
	Rated voltage	20 ... 90 V DC or 48...253 V AC 50/60Hz	
	Rated current	approx. 100 mA	
	Power loss	2 W	
	Power consumption	2,5 W	
Input	Connection	terminals 1, 2, 3	
	Open circuit voltage / Short-circuit current	24 V / 33 mA	
	Input signal	0 ... 20 mA / 4...20 mA	
	Available voltage	≥ 15 V @ 20 mA	
	Input resistance	45 _ (terminals 2, 3)	
	Lead monitoring	Breakage I < 0,2 mA; short circuit I > 22 mA acc. to NAMUR NE 43	
	Output	Connection	output I : terminals 10, 11, 12 output II: terminals 16, 17, 18 output: analogue, terminals 8+, 7-
Output I and II		signal, relay	
Contact loading		250 V AC / 2 A / $\cos \varphi \geq 0,7$; 40 V DC / 2 A	
Mechanical life		5 x 10 ⁷ switching cycles	
Energised / de-energised delay		approx. 20 ms / approx. 20 ms	
Output III		signal, analogue	
Current range		0 ... 20 mA or 4 ... 20 mA	
Open loop voltage		≤ 24 V DC	
Load		≤ 650 Ohm	
Fault signal		downscale I ≤ 3,6 mA, upscale I ≥ 21,5 mA (acc. NAMUR NE 43)	
Transfer characteristics		Input I	≥ 100 ms deflexion
		Measuring time	< 100 ms
		Temperature	0.003 % / °C (30 ppm)
	Output III		
	Resolution	10 µA / 0,2 %	
	Accuracy	< 20 µA	
Electrical isolation	Temperature	0.005 % / °C (50 ppm)	
	Input / other circuits	safe electrical isolation acc. to DIN EN 50178 , voltage peak value 375 V	
	Output I , II / other circuits	reinforced insulation according to IEC 61140, rated insulation voltage 300 V _{eff}	
	Mutual output I , II , III	reinforced insulation according to IEC 61140, rated insulation voltage 300 V _{eff}	
	Output III / power supply and collective error	reinforced insulation according to IEC 61140, rated insulation voltage 300 V _{eff}	
Standard conformity	Interface / power supply and collective error	reinforced insulation according to IEC 61140, rated insulation voltage 300 V _{eff}	
	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	
Ambient conditions	Input	acc. to DIN EN 60947-5-6	
	Ambient temperature	-30 ... 60 °C (253 ... 333 K)	
Mechanical specifications	Protection degree	IP20	
	Mass	300 g	

Construction



Subject of technical changes