

Digital limit switch

Model EGS80

WIKA data sheet AC 50.01



Applications

- Cranes, hoists
- Conveyor system
- Machine building and plant construction
- Manufacturing automation

Special features

- Analogue input 0/4 ... 20 mA 2- and 3-wire
- Galvanic isolation, line break (LB) and short-circuit (SC) monitoring
- Easy setting of extensive functions on the instrument or via PC software
- Two potential-free relay contacts (change-over) with status LED and a freely-programmable analogue output (0 ... 20 mA)
- Up to SIL 2 in accordance with IEC 61508

Description

The EGS80 limit switch is suitable for a multitude of measuring requirements. It is used universally, in combination with force transducers of all types or load cells, in force or weight monitoring in conveyor systems, cranes, hoists etc. This limit switch allows galvanic isolation between field circuits and control circuits and can also be used as a galvanic isolator.

Both 2- and 3-wire transmitters as well as active sources with signal 0/4 ... 20 mA can be connected. The input has line break and cable short-circuit monitoring. As outputs, there are 2 relays and one active current output 0/4 ... 20 mA available. The current output is freely scalable. The measured value display is a small LC display - 17 different display units, such as kg, t, N, bar etc. are selectable.



Digital limit switch, model EGS80

It is operated via the control panel on the front of the instrument or via the free PC software. The software enables easy and fast parameterisation. A file with the setting parameters can be created, saved and loaded into any model EGS80 limit switch. If several instruments must be parameterised identically, the time required is significantly reduced. An adapter cable for the PC connection with "SUB-D9/25 to audio plug" or "USB type A to audio plug" can be supplied as an option.

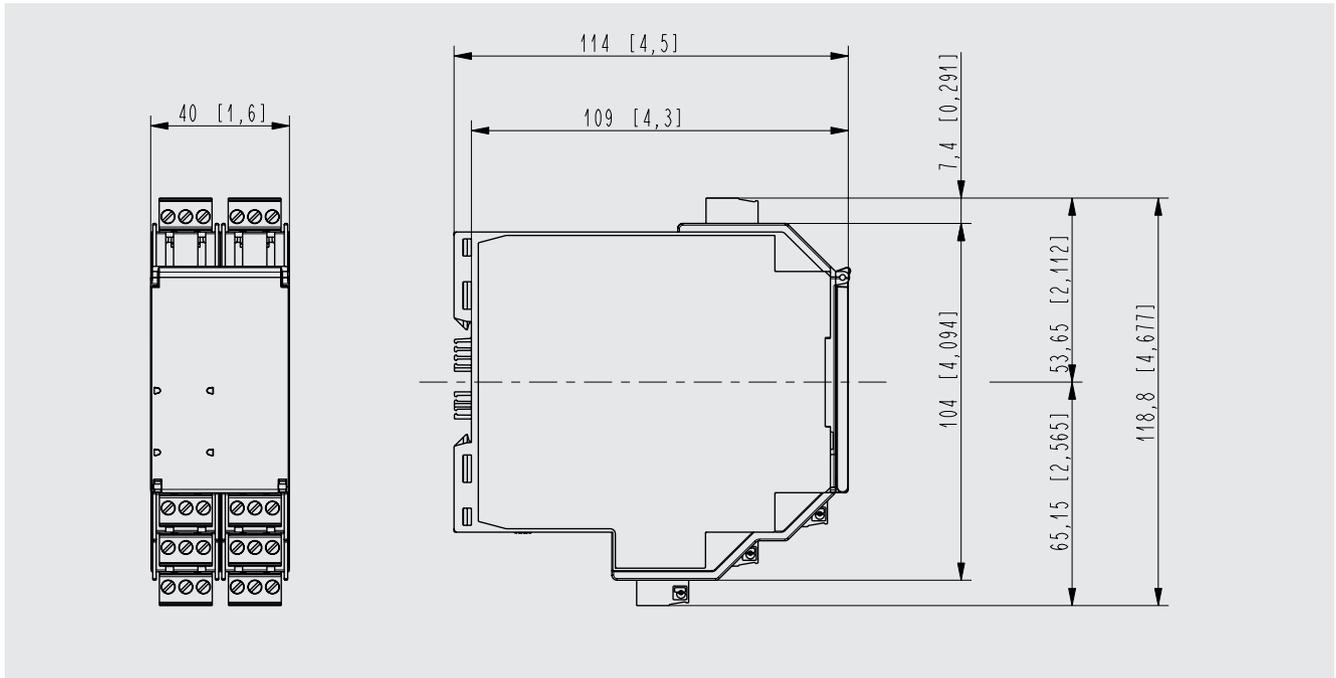
Specifications

Model EGS80	
Input	
Input signal	0/4 ... 20 mA
Input resistance	45 Ω (terminals 2, 3)
Open-circuit voltage	DC 24 V / 33 mA
Available voltage	> DC 15 V for 20 mA
Influence of the ambient temperature	0.003 %/K (30 ppm)
Line fault monitoring	Line break < 0.2 mA, short-circuit > 22 mA
Accuracy	< 30 μ A
Rated temperature range	-20 ... +60 °C
Display	LC display, LEDs
Output I, II	
Control system	Relay
Contact load	AC 250 V / 2 A/cos ϕ \geq 0.7; DC 40 V / 2 A
Mechanical lifetime	5 x 10 ⁷ switching cycles
Response delay	\leq 200 ms with a step of 0 ... 20 mA
Output III	
Analogue output	0 ... 20 mA or 4 ... 20 mA
Open-circuit voltage	\leq DC 24 V
Load	\leq 650 Ω
Error signal	downscale \leq 3.6 mA, upscale \geq 21.5 mA (in accordance with NAMUR NE43)
Resolution	\leq 10 μ A
Accuracy	< 20 μ A
Influence of the ambient temperature	0.005 %/K (50 ppm)
Response time	< 650 ms with a step from 0 ... 20 mA at the input, 90 % of the output signal final value
Linearisation	Number of linearisation steps: max. 20
Galvanic isolation	
Input/other circuits reinforced insulation in accordance with IEC/EN 61010-1	Rated insulation voltage 300 Veff
Output I, II/other circuits reinforced insulation in accordance with IEC/EN 61010-1	Rated insulation voltage 300 Veff
Output I, II, III reinforced insulation between themselves in accordance with IEC/EN 61010-1	Rated insulation voltage 300 Veff
Output III/supply reinforced insulation in accordance with IEC/EN 61010-1	Rated insulation voltage 300 Veff
Interface/supply reinforced insulation in accordance with IEC/EN 61010-1	Rated insulation voltage 300 Veff
Supply voltage	DC 20 ... 90 V AC 48 ... 253 V
Dissipation loss	2 W / 3 VA
Power consumption	2.2 W / 4 VA
Settling time	Energized/De-energized delay 0 ... 250 s, settable
Ingress protection	IP20
Electromagnetic compatibility	EN 61326-1:2013 (industrial areas) NE 21:2006
Low voltage	EN 61010-1:2010
Safety integrity level (SIL)	up to SIL 2 per IEC 61508
Mounting	DIN rail 35 mm per EN 60715:200
Weight	Approx. 300 g
Order number	14157868

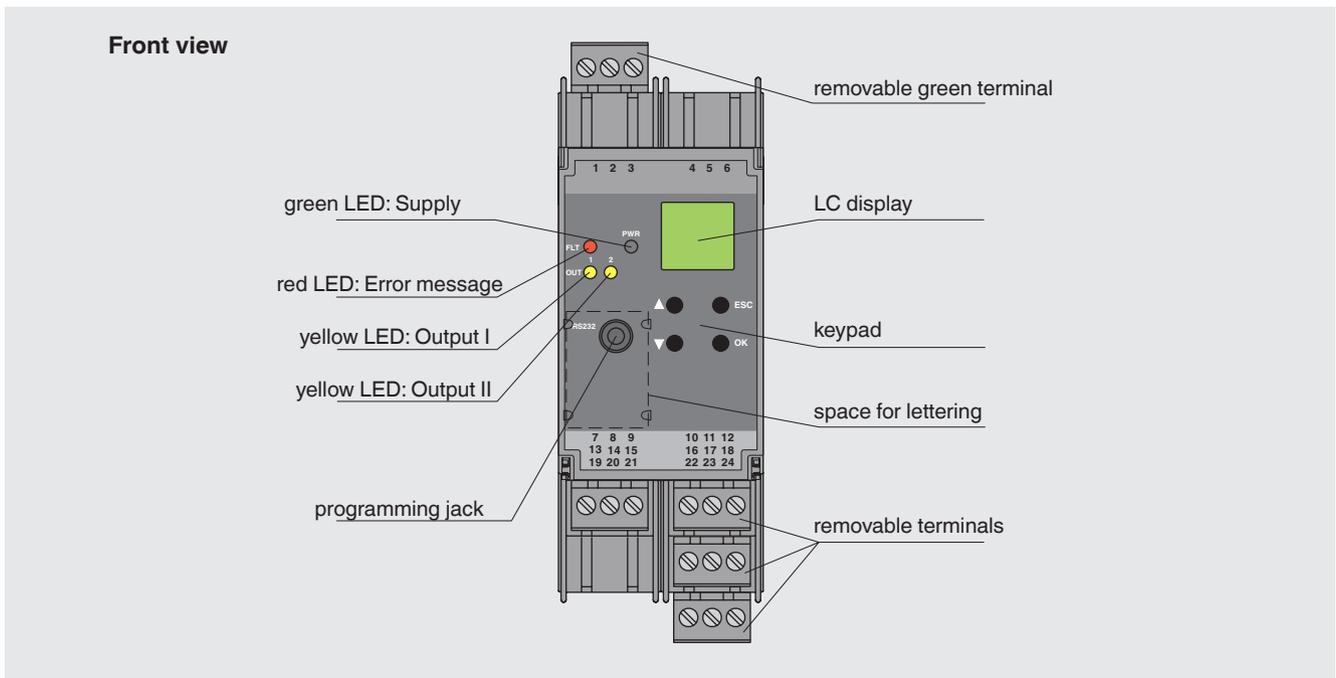
Approvals

Logo	Description	Country
	EU declaration of conformity <ul style="list-style-type: none"> ■ EMC directive ■ RoHS directive 	European Union
	UL per UL 508 and CSA 22.2 no. 143	USA and Canada

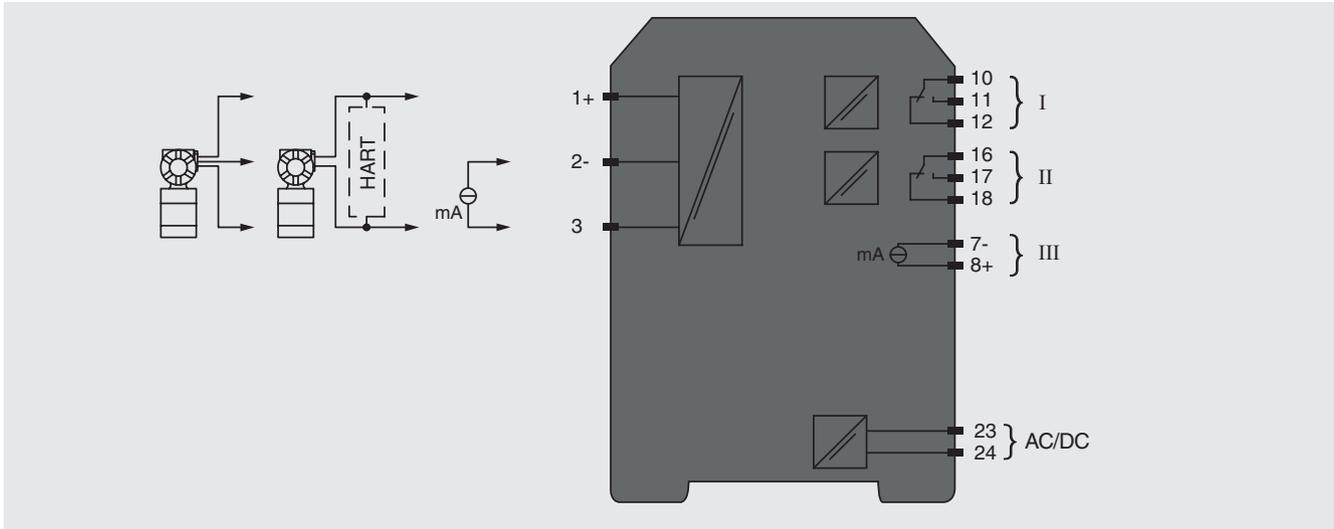
Dimensions in mm [inch]



Design



Electrical connection



Accessories

Designation	Model	Order number
Adapter cable sub-D9/25 to audio jack	EZE53X001010	On request
Adapter cable USB Type A to audio jack	EZE53X001014	On request

To order the described product the order number is sufficient.

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