

# Digital limit switch

## Model EGS80

WIKA data sheet AC 50.01



For further approvals  
see page 3

### 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)



Digital limit switch, model EGS80

### 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.

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 "USB type A to audio plug" can be supplied as accessories.

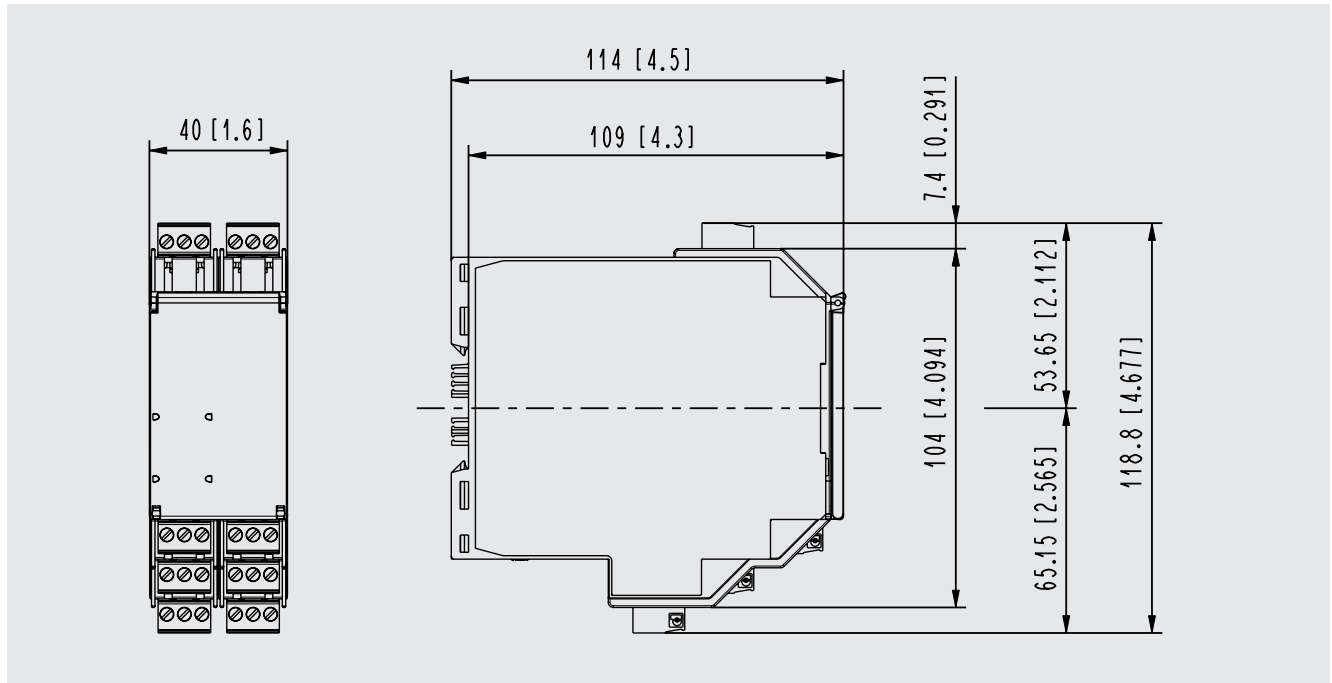
## Technical data

Model EGS80	
<b>Input</b>	
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 µA
<b>Rated temperature range</b>	-20 ... +60 °C [-4 ... 140 °F]
<b>Altitude</b>	< 2,000 m above sea level
<b>Display</b>	LC display, LEDs
<b>Output I, II</b>	
Control system	Relay
Contact load	AC 250 V / 2 A/cos φ ≥ 0.7; DC 40 V / 2 A
Mechanical lifetime	5 x 10 <sup>7</sup> switching cycles
Response delay	≤ 200 ms with a step of 0 ... 20 mA
<b>Output III</b>	
Analogue output	0 ... 20 mA or 4 ... 20 mA
Open-circuit voltage	≤ DC 24 V
Load	≤ 650 Ω
Error signal	downscale ≤ 3.6 mA, upscale ≥ 21.5 mA (in accordance with NAMUR NE43)
Resolution	≤ 10 µA
Accuracy	< 20 µA
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
<b>Linearisation</b>	Number of linearisation steps: max. 20
<b>Galvanic isolation</b>	
Input/other circuits reinforced insulation in acc. with IEC/EN 61010-1	Rated insulation voltage 300 Veff
Output I, II/other circuits reinforced insulation in acc. with IEC/EN 61010-1	Rated insulation voltage 300 Veff
Output I, II, III reinforced insulation between themselves in acc. with IEC/EN 61010-1	Rated insulation voltage 300 Veff
Output III/supply reinforced insulation in acc. with IEC/EN 61010-1	Rated insulation voltage 300 Veff
Interface/supply reinforced insulation in acc. with IEC/EN 61010-1	Rated insulation voltage 300 Veff
<b>Supply voltage</b>	<ul style="list-style-type: none"> <li>■ DC 20 ... 90 V</li> <li>■ AC 48 ... 253 V</li> </ul>
<b>Dissipation loss</b>	2 W / 3 VA
<b>Power consumption</b>	2.2 W / 4 VA
<b>Settling time</b>	Energized/De-energized delay 0 ... 250 s, settable
<b>Ingress protection</b>	IP20
<b>Electromagnetic compatibility</b>	<ul style="list-style-type: none"> <li>■ EN 61326-1:2013 (industrial areas)</li> <li>■ NE 21:2006</li> </ul>
<b>Low voltage</b>	EN 61010-1:2010
<b>Safety integrity level (SIL)</b>	Up to SIL 2 per IEC 61508
<b>Mounting</b>	DIN rail 35 mm [1.378 in] per EN 60715:200
<b>Weight</b>	Approx. 300 g [0.66 lbs]

## Approvals

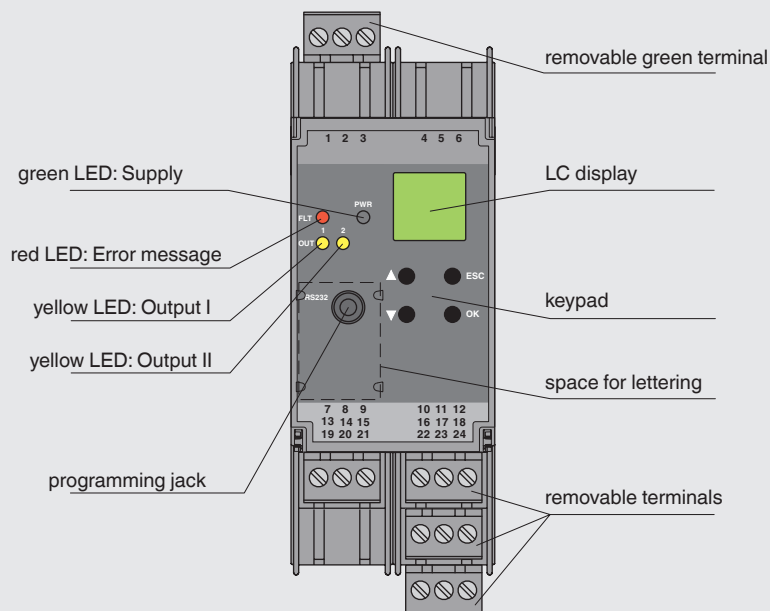
Logo	Description	Country
	<b>EU declaration of conformity</b> <ul style="list-style-type: none"> <li>■ EMC directive</li> <li>■ RoHS directive</li> </ul>	European Union
	<b>UL</b> Per UL 508 and CSA 22.2 no. 143	USA and Canada

## Dimensions in mm [in]

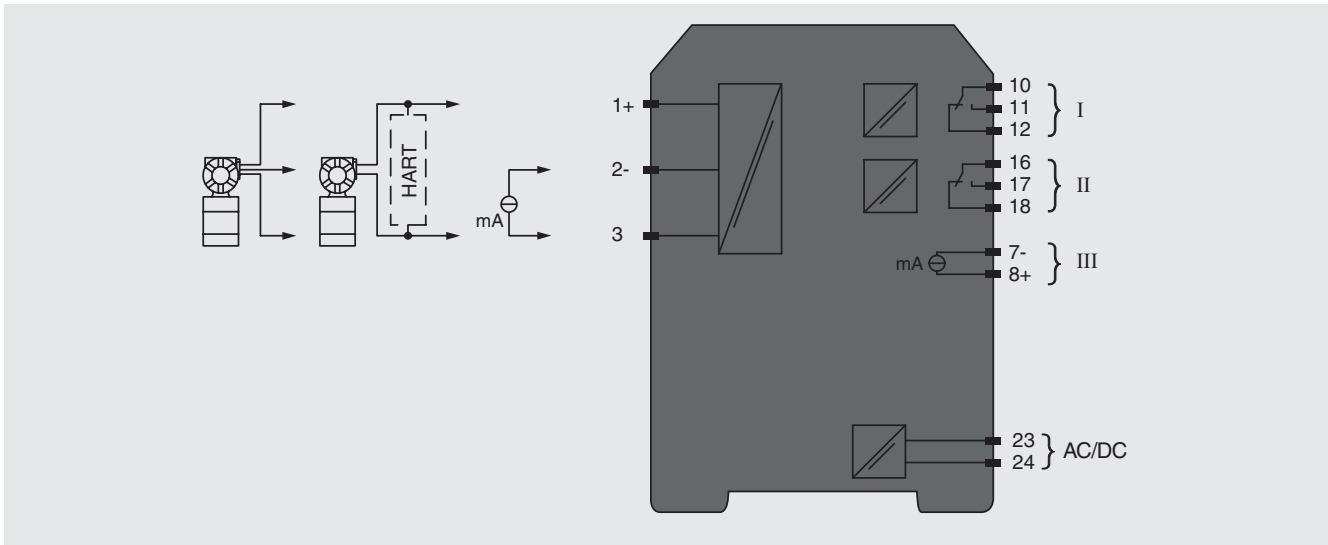


## Design

### Front view



## Electrical connection



## Accessories

Designation	Item number
Adapter cable USB Type A to audio jack	14259448

## Order detail:

To order the described product the order number: **14157868** is sufficient.

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