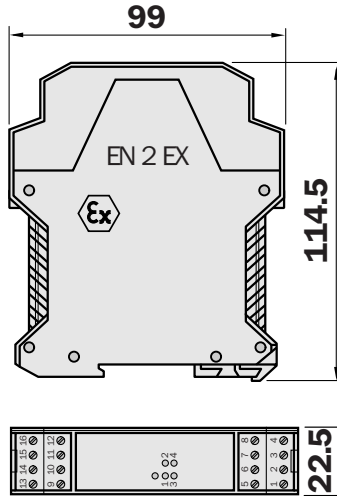


EN 2 Ex Switching amplifier

Features

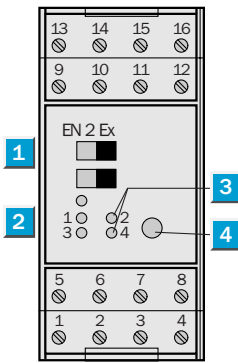
- **Ex II (1) G/D [EEx ia] IIC** according to Directive 94/9/EC (ATEX) with intrinsically safe inputs
- Reliable electrical isolation between input, output and supply voltage to VDE 0100 Part 410
- 2-channel each with one relay output 1 x u
- Invertible outputs
- Mounting on 35 mm (1.378 in.) DIN rails according to DIN EN 60715

Dimensional drawing



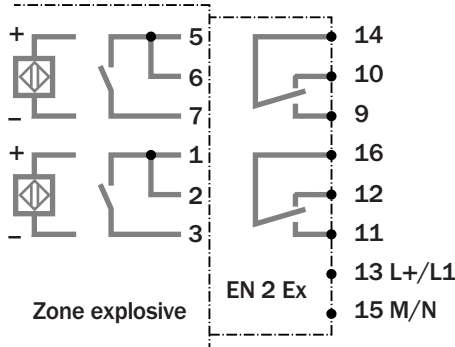
Adjustments possible

All Types



- 1 Switches to reverse action. Switch in position I and contact in the input circuit closed, output active (ON). Switch in position II, output action inverted.
- 2 LED (red), cable monitoring indicator: The activation of the cable-break and cable short-circuit monitoring is only functional if a sensor/proximity switch to EN 60947-5-6 (NAMUR) or a mechanical contact with suitable resistance circuit as per the operating instructions is connected. This circuit monitors the input current and deactivates the output with input currents < 0.3 mA cable-break and > 6.5 mA short-circuit irrespective of setting for the direction of action.
- 3 LED (yellow), switch status indication: This LED is activated in parallel to the output.
- 4 LED (green), supply voltage indication.

Connection diagram



Technical data		EN 2 Ex-	1	2	3							
Supply voltage V_s	120 V AC											
	230 V AC											
	24 V DC											
Power frequency	48 ... 62/s											
Power consumption per channel	Approx. 2.2 VA											
Power consumption, total	Approx. 0.7 W											
Inputs	For 1 or 2 sensors											
No-load voltage	8.5 V DC											
EC-type examination certificate	TÜV 03 ATEX 2346											
Output voltage U_o , max.	≤ 10.5 V											
Output current I_o , max.	≤ 26 mA											
Output power P_o , max.	67 mW											
External capacity C_a , max.	2.41 μ F											
External inductivity L_a , max.	45 mH											
Ambient temperature T_A	Operation: -20 °C $\leq T_a \leq +60$ °C											
Switching points	$0 < 1.55$ mA											
	$1 > 1.75$ mA											
Short circuit current	$I \geq 8.5$ mA											
Switching outputs ¹⁾	1 relay per input: SPDT											
Switching voltage $U_{max.}$	250 V AC											
Switching current $I_{max.}$	5 A											
Switching power $P_{max.}$	100 VA											
VDE protection class	I											
Enclosure rating	IP 20											
Ambient temperature T_A	Storage: -25 °C ... $+85$ °C											
Weight	Approx. 175 g											
Housing material	Plastic											

¹⁾ Provide suitable spark suppression for inductive or capacitive loads.

Transmission characteristics		Order information	
Active direction		Type	Order no.
(light-/dark-switching):	Can be changed over (see table)	EN 2 EX-1	6 010 459
Cable monitoring:	Can be switched off	EN 2EX-2	6 010 460
Max. switching frequency:	20/s	EN 2EX-3	6 009 944

Table of switching functions

Input		Active direction light/dark change-over switch on		Cable monitoring		Output status	
		I	II		Red LED	Relay	Yellow LED
No fault in input circuit	Contact open	Normal		as desired	off	dropped off	off
			Inverted	as desired	off	responded	on
	Contact closed	Normal		as desired	off	responded	on
			Inverted	as desired	off	dropped off	off
With fault in input circuit	Cable break	Normal		on	on	dropped off	off
			Inverted	on	on	dropped off	off
	Short-circuit	Normal		on	on	dropped off	off
			Inverted	on	on	dropped off	off
	Cable break	Normal		off	off	dropped off	off
			Inverted	off	off	responded	on
	Short-circuit	Normal		off	off	responded	on
			Inverted	off	off	dropped off	off