



Switch Amplifier WE77/Ex-1 230V

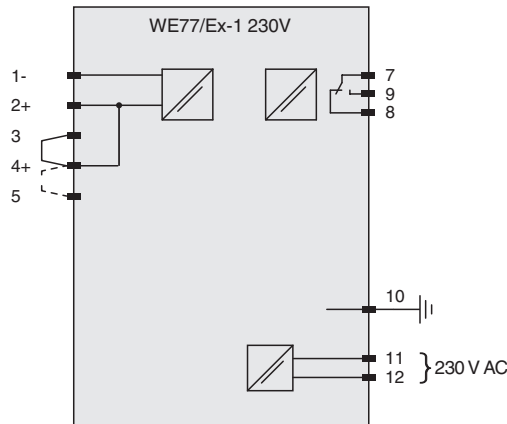
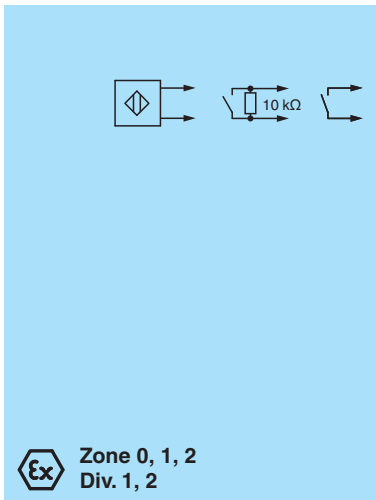
- 1-channel
- Control circuit EEx ia IIC
- 230 V AC supply voltage
- Reversible mode of operation
- Lead breakage (LB) monitoring
- 1 relay contact output (change-over contact)



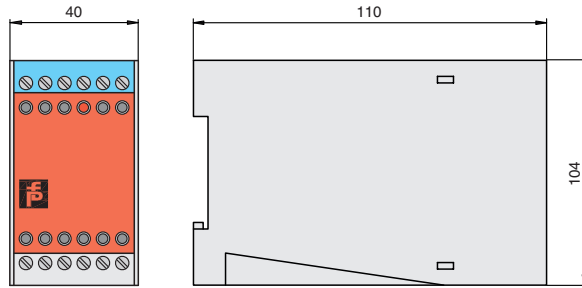
Function

The device transfers digital signals into hazardous areas. Sensors per EN 60947-5-6 (NAMUR) or mechanical contacts may be used as transmitters. The control circuit is monitored for lead breakage (LB).

Connection



Dimensions



Technical Data

General specifications		
Signal type	Digital Input	
Supply		
Connection	terminals 11, 12	
Rated voltage	U_r	198 ... 253 V AC ; 45 ... 65 Hz
Power dissipation	1.6 W	
Power consumption	approx. 2.3 VA	
Input		
Connection side	field side	
Connection	terminals 1-, 2+	
Rated values	acc. to EN 60947-5-6 (NAMUR), see manual for electrical data	
Open circuit voltage/short-circuit current	approx. 8 V DC / approx. 8 mA	
Switching point/switching hysteresis	1.2 ... 2.1 mA / approx. 0.2 mA	
Pulse/Pause ratio	min. 0.5 ms / min. 0.5 ms	
Line fault detection	breakage $I \leq 0.1$ mA	
Output		
Connection side	control side	
Connection	terminals 7, 8, 9	
Output	signal ; relay	
Contact loading	253 V AC/2 A/500 VA/cos ϕ min. 0,7; 125 V AC/4 A/500 VA cos ϕ min. 0,7; 40 V DC/2 A/80 W ohmic load	
Energized/De-energized delay	approx. 10 ms / approx. 20 ms	
Mechanical life	10^7 switching cycles	
Transfer characteristics		
Switching frequency	< 10 Hz	
Galvanic isolation		
Input/Output	reinforced insulation according to IEC/EN 61010-1, rated insulation voltage 300 V _{eff}	
Input/power supply	reinforced insulation according to IEC/EN 61010-1, rated insulation voltage 300 V _{eff}	
Output/power supply	basic insulation according to IEC/EN 61010-1, rated insulation voltage 300 V _{eff}	
Indicators/settings		
Display elements	LED	
Directive conformity		
Electromagnetic compatibility		
Directive 2014/30/EU	EN 61326-1:2013 (industrial locations)	
Low voltage		
Directive 2014/35/EU	EN 61010-1:2010	

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Technical Data

Conformity

Degree of protection	IEC 60529
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Ambient conditions

Ambient temperature	-20 ... 60 °C (-4 ... 140 °F)
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Mechanical specifications

Degree of protection	IP20
Connection	screw terminals
Mass	approx. 390 g
Dimensions	40 x 104 x 110 mm (1.6 x 4.1 x 4.3 inch) (W x H x D) , housing type W1

Data for application in connection with hazardous areas

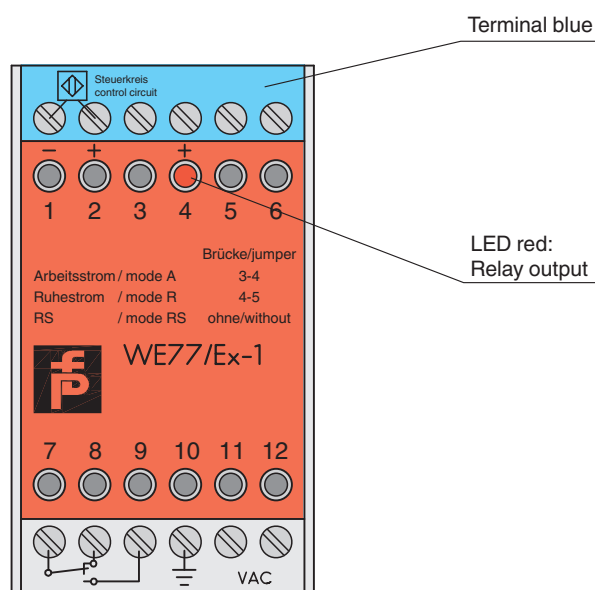
EU-type examination certificate	PTB 02 ATEX 2065
Marking	Ⓔ II (1)GD [EEx ia] IIC [circuit(s) in zone 0/1/2]
Input	Ex ia
Voltage	U_o 13.4 V DC
Current	I_o 31 mA
Power	P_o 145 mW (trapezoid characteristic curve)
Supply	
Maximum safe voltage	U_m 253 V AC (Attention! The rated voltage can be lower.)
Output	
Maximum safe voltage	U_m 253 V AC (Attention! The rated voltage can be lower.)
Galvanic isolation	
Input/Output	safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V
Input/power supply	safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V
Directive conformity	
Directive 2014/34/EU	EN 60079-0:2012+A11:2013 , EN 60079-11:2012

General information

Supplementary information	Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable. For information see www.pepperl-fuchs.com .
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Assembly

Front view



Configuration

Mode of operation without lead breakage detection

Jumpers	Input	Output
Jumpers between terminals 4 and 5		
	0-Signal	
Jumpers between terminals 4 and 5		
	1-Signal	
Jumpers between terminals 3 and 4		
	1-Signal	
Jumpers between terminals 3 and 4		
	0-Signal	

Mode of operation with lead breakage detection

Jumpers	Input	Output
Without jumpers		
	0-Signal	
Without jumpers		
	1-Signal	
Without jumpers		
	0-Signal	
Without jumpers		
	1-Signal	

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