



Switch Amplifier WE77/Ex-1 115V

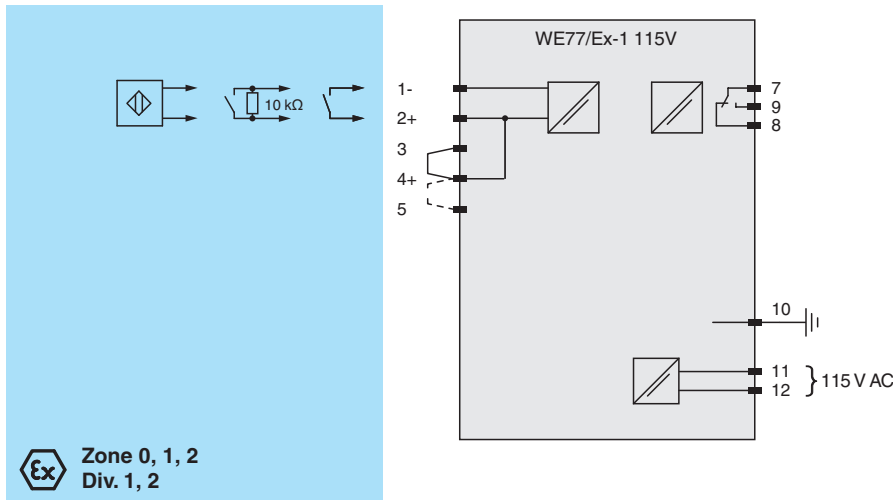
- 1-channel
- Control circuit EEx ia IIC
- 115 V AC supply voltage
- Reversible mode of operation
- Lead breakage (LB) monitoring
- 1 relay contact output (change-over contact)



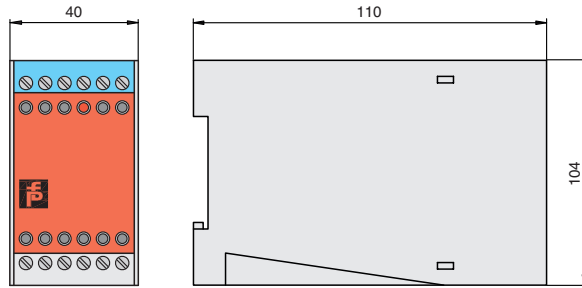
Function

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

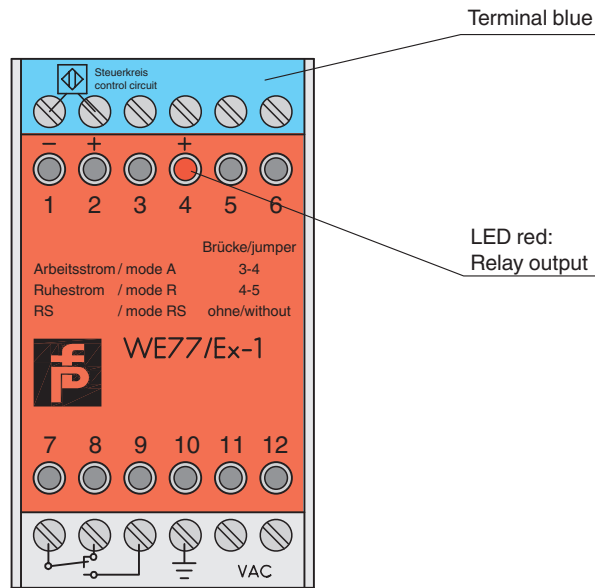
General specifications	
Signal type	Digital Input
Supply	
Connection	terminals 11, 12
Rated voltage	U_r 103.5 ... 126 V AC , 45 ... 65 Hz
Power dissipation	1.6 W
Power consumption	approx. 2.3 VA
Input	
Connection side	field side
Connection	terminals 1-, 2+
Rated values	acc. to EN 60947-5-6 (NAMUR), see 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

Technical Data

Conformity		
Degree of protection		IEC 60529
Ambient conditions		
Ambient temperature		-20 ... 60 °C (-4 ... 140 °F)
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	126.5 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
International approvals		
UL approval		
Control drawing		116-0115C (cULus)
General information		
Supplementary information		Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable. For information see www.pepperl-fuchs.com .

Assembly

Front view



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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	
Wichout jumpers		
	1-Signal	
Wichout jumpers		
	0-Signal	
Without jumpers		
	1-Signal	

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