



Relay output

FB6301*

- 2-channel
- Outputs wired to Ex e terminals
- Installation in suitable enclosures in Zone 1 or Zone 21
- Positive or negative logic selectable
- Simulation mode for service operations (forcing)
- Permanently self-monitoring
- Output with watchdog
- Module can be exchanged under voltage (hot swap)



Function

The device features 2 independent channels.
 The device can be used to switch solenoids, sounders, or lamps.
 The device can perform general switching operations, such as switching auxiliary power circuits.
 The outputs are galvanically isolated from the bus and the power supply.

Technical Data

Supply

Connection	backplane bus	
Rated voltage	U _r	12 V DC , only in connection with the power supplies FB92**
Power consumption	0.65 W	

Internal bus

Connection	backplane bus	
Interface	manufacturer-specific bus to standard com unit	

Output

Number of channels	2	
Connection	wire ends 1 (white), 2 (brown), 3 (green), 4 (yellow), 5 (grey), 6 (pink)	
Minimum load	1 V , 1 mA	
Relay		
Switching voltage	24 V DC / 230 V AC	
Switching current	1 A DC / AC resistive load	
Switching power	30 W , 230 VA resistive load	
Electrical life	0.5 Mio. cycles	
Response time	20 ms (depending on bus cycle time)	
Contact Material	AgPd gold plated	
Watchdog	within 0.5 s the device goes in safe state, e.g. after loss of communication	

Indicators/settings

LED indicator	LED green: supply LED yellow: signal (status)	
---------------	--	--

Directive conformity

Electromagnetic compatibility		
Directive 2014/30/EU	EN 61326-1	
Low voltage		
Directive 2006/95/EC	EN 61010-1	

Conformity

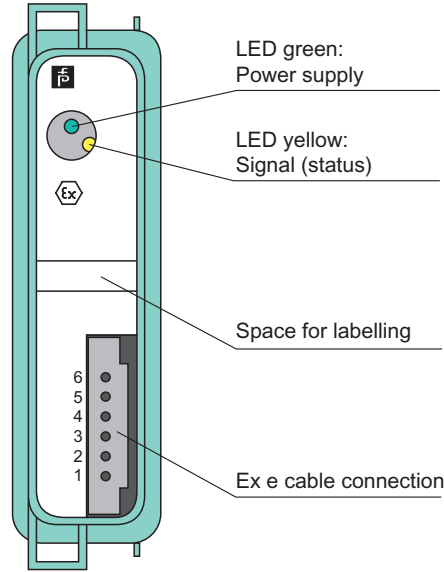
Release date: 2020-04-30 Date of issue: 2020-04-30 Filename: t34934_eng.pdf

Technical Data

Electromagnetic compatibility	NE 21
Degree of protection	IEC 60529
Environmental test	EN 60068-2-14
Shock resistance	EN 60068-2-27
Vibration resistance	EN 60068-2-6
Damaging gas	EN 60068-2-42
Relative humidity	EN 60068-2-56
Ambient conditions	
Ambient temperature	-20 ... 60 °C (-4 ... 140 °F)
Storage temperature	-25 ... 85 °C (-13 ... 185 °F)
Relative humidity	95 % non-condensing
Shock resistance	shock type I, shock duration 11 ms, shock amplitude 50 m/s ² , number of shock directions 6, number of shocks per direction 100
Vibration resistance	frequency range 5 ... 500 Hz, amplitude 5 ... 13.2 Hz ± 1.5 mm, 13.2 ... 100 Hz 1g, sweep rate 1 octave/min, duration 10 sweeps 5 Hz - 100 Hz - 5 Hz
Damaging gas	designed for operation in environmental conditions acc. to ISA-S71.04-1985, severity level G3
Mechanical specifications	
Degree of protection	IP20 (module) , a separate housing is required acc. to the system description
Connection	wire ends or shielded cable tail wiring connection: separately covered Ex e terminals required
Mass	approx. 350 g
Dimensions	28 x 107 x 132 mm (1.1 x 4.2 x 5.2 inch)
Data for application in connection with hazardous areas	
EC-Type Examination Certificate	PTB 97 ATEX 1074 U
Group, category, type of protection	⊕ II 2 G Ex d IIC Gb
Galvanic isolation	
Output/power supply, internal bus	safe electrical isolation acc. to EN 61010-1
Directive conformity	
Directive 2014/34/EU	EN 60079-0:2009 EN 60079-1:2007 EN 60079-11:2007 EN 60079-26:2007 EN 61241-11:2006
International approvals	
ATEX approval	BVS 11 ATEX E 093X
EAC approval	Russia: RU C-IT.MIII06.B.00129
Marine approval	
Lloyd Register	15/20021
DNV GL Marine	TAA0000034
American Bureau of Shipping	T1450280/UN
Bureau Veritas Marine	22449/B0 BV
General information	
System information	The module has to be mounted in appropriate backplanes (FB92**) in Zone 1, 2, or outside hazardous areas. Observe the corresponding EC-type examination certificate.
Supplementary information	EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see www.pepperl-fuchs.com .

Assembly

Front view



Release date: 2020-04-30 Date of issue: 2020-04-30 Filename: t34934_eng.pdf

Product Versions

Model number	Options
FB6301B-80	relay output, 24 V DC, 1 A (ohmic load), wire ends, 80 cm
FB6301B150	relay output, 24 V DC, 1 A (ohmic load), wire ends, 150 cm
FB6301BS200	relay output, 24 V DC, 1 A (ohmic load), shielded cable tail, 200 cm
FB6301HS200	relay output, 24 V DC / 230 V AC, 1 A (ohmic load), shielded cable tail, 200 cm