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

Function

The device features 4 independent channels.

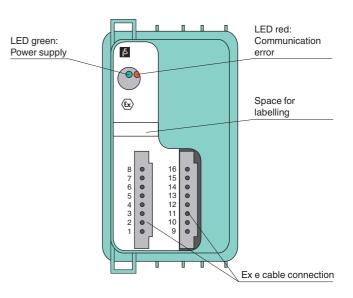
The device can be used to switch solenoids, sounders, or lamps.

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.

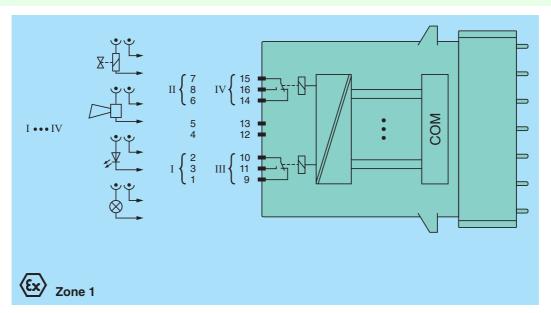
Assembly

Front view





Connection



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Slots		
Occupied slots	2	
Supply		
Connection	backplane bus	
	·	onnection with the power supplies FB92**
Power dissipation	1.05 W	ormodulori with the power supplies i Boz
Power consumption	1.05 W	
Internal bus	1.05 W	
	le e el culto de la con-	
Connection	backplane bus	
Interface	manutacturer-spec	ific bus to standard com unit
Digital output		
Number of channels	4	
Field device interface		
Connection	Relay output	
Connection	wire ends 1/9 (white	e), 2/10 (brown), 3/11 (green), 4/12 (yellow), 5/13 (grey), 6/14 (pink), 7/15 (blue), 8/16 (red)
Relay		
Switching voltage	DC: 30 V AC: 230 V	<i>I</i>
Switching current	1 A DC / AC resistiv	ve load
Switch power	30 W , AC: 250 VA	
Minimum load	1 V 1 A	
Electrical life	0.1 mio. cycles	
Contact Material	AgPd gold plated	
Response time	20 ms (depending	on bus svala tima)
•	, , ,	•
Watchdog	within 0.5 s the dev	rice goes in safe state, e.g. after loss of communication
Indicators/settings		
LED indication	LED green: supply LED red: communic	cation fault
Directive conformity		
Electromagnetic compatibility		
Directive 2014/30/EU	EN 61326-1	
Low voltage		
Directive 2006/95/EC	EN 61010-1	
Conformity		
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	LIV 00000-2-30	
	20 60 %C / 4	140 °F\
Ambient temperature	-20 60 °C (-4 1	
Storage temperature	-25 85 °C (-13	185 °F)
Storage temperature Relative humidity	-25 85 °C (-13 95 % non-condens	185 °F) ing
Storage temperature	-25 85 °C (-13 95 % non-condens	185 °F)
Storage temperature Relative humidity	-25 85 °C (-13 95 % non-condens shock type I, shock frequency range 10 cycles	185 °F) ing duration 11 ms, shock amplitude 15 g, number of shocks 18 150 Hz; transition frequency: 57.56 Hz, amplitude/acceleration ± 0.075 mm/1 g; 10
Storage temperature Relative humidity Shock resistance	-25 85 °C (-13 95 % non-condens shock type I, shock frequency range 10 cycles frequency range 5 each resonance	185 °F) ing duration 11 ms, shock amplitude 15 g, number of shocks 18 0 150 Hz; transition frequency: 57.56 Hz, amplitude/acceleration ± 0.075 mm/1 g; 10 100 Hz; transition frequency: 13.2 Hz amplitude/acceleration ± 1 mm/0.7 g; 90 minutes at
Storage temperature Relative humidity Shock resistance	-25 85 °C (-13 95 % non-condens shock type I, shock frequency range 10 cycles frequency range 5 each resonance	185 °F) ing duration 11 ms, shock amplitude 15 g, number of shocks 18 150 Hz; transition frequency: 57.56 Hz, amplitude/acceleration ± 0.075 mm/1 g; 10
Storage temperature Relative humidity Shock resistance Vibration resistance	-25 85 °C (-13 95 % non-condens shock type I, shock frequency range 10 cycles frequency range 5 each resonance	185 °F) ing duration 11 ms, shock amplitude 15 g, number of shocks 18 0 150 Hz; transition frequency: 57.56 Hz, amplitude/acceleration ± 0.075 mm/1 g; 10 100 Hz; transition frequency: 13.2 Hz amplitude/acceleration ± 1 mm/0.7 g; 90 minutes at
Storage temperature Relative humidity Shock resistance Vibration resistance Damaging gas	-25 85 °C (-13 95 % non-condens shock type I, shock frequency range 10 cycles frequency range 5 each resonance designed for opera	185 °F) ing duration 11 ms, shock amplitude 15 g, number of shocks 18 0 150 Hz; transition frequency: 57.56 Hz, amplitude/acceleration ± 0.075 mm/1 g; 10 100 Hz; transition frequency: 13.2 Hz amplitude/acceleration ± 1 mm/0.7 g; 90 minutes at
Storage temperature Relative humidity Shock resistance Vibration resistance Damaging gas Mechanical specifications	-25 85 °C (-13 95 % non-condens shock type I, shock frequency range 10 cycles frequency range 5 each resonance designed for opera	185 °F) ing duration 11 ms, shock amplitude 15 g, number of shocks 18 0 150 Hz; transition frequency: 57.56 Hz, amplitude/acceleration ± 0.075 mm/1 g; 10 100 Hz; transition frequency: 13.2 Hz amplitude/acceleration ± 1 mm/0.7 g; 90 minutes at tion in environmental conditions acc. to ISA-S71.04-1985, severity level G3 eparate housing is required acc. to the system description
Storage temperature Relative humidity Shock resistance Vibration resistance Damaging gas Mechanical specifications Degree of protection	-25 85 °C (-13 95 % non-condens shock type I, shock frequency range 10 cycles frequency range 5 each resonance designed for opera	185 °F) ing duration 11 ms, shock amplitude 15 g, number of shocks 18 0 150 Hz; transition frequency: 57.56 Hz, amplitude/acceleration ± 0.075 mm/1 g; 10 100 Hz; transition frequency: 13.2 Hz amplitude/acceleration ± 1 mm/0.7 g; 90 minutes at tion in environmental conditions acc. to ISA-S71.04-1985, severity level G3 eparate housing is required acc. to the system description
Storage temperature Relative humidity Shock resistance Vibration resistance Damaging gas Mechanical specifications Degree of protection	-25 85 °C (-13 95 % non-condens shock type I, shock frequency range 10 cycles frequency range 5 each resonance designed for opera	185 °F) ing duration 11 ms, shock amplitude 15 g, number of shocks 18 0 150 Hz; transition frequency: 57.56 Hz, amplitude/acceleration ± 0.075 mm/1 g; 10 100 Hz; transition frequency: 13.2 Hz amplitude/acceleration ± 1 mm/0.7 g; 90 minutes at tion in environmental conditions acc. to ISA-S71.04-1985, severity level G3 eparate housing is required acc. to the system description ed cable tail
Storage temperature Relative humidity Shock resistance Vibration resistance Damaging gas Mechanical specifications Degree of protection Connection	-25 85 °C (-13 95 % non-condens shock type I, shock frequency range 10 cycles frequency range 5 each resonance designed for opera IP20 (module) , a s wire ends or shield wiring connection: approx. 750 g	185 °F) ing duration 11 ms, shock amplitude 15 g, number of shocks 18 0 150 Hz; transition frequency: 57.56 Hz, amplitude/acceleration ± 0.075 mm/1 g; 10 100 Hz; transition frequency: 13.2 Hz amplitude/acceleration ± 1 mm/0.7 g; 90 minutes at tion in environmental conditions acc. to ISA-S71.04-1985, severity level G3 eparate housing is required acc. to the system description ed cable tail
Storage temperature Relative humidity Shock resistance Vibration resistance Damaging gas Mechanical specifications Degree of protection Connection Mass	-25 85 °C (-13 95 % non-condens shock type I, shock frequency range 10 cycles frequency range 5 each resonance designed for opera IP20 (module) , a s wire ends or shield wiring connection: approx. 750 g 57 x 107 x 132 mm	185 °F) ing duration 11 ms, shock amplitude 15 g, number of shocks 18 150 Hz; transition frequency: 57.56 Hz, amplitude/acceleration ± 0.075 mm/1 g; 10 100 Hz; transition frequency: 13.2 Hz amplitude/acceleration ± 1 mm/0.7 g; 90 minutes at tion in environmental conditions acc. to ISA-S71.04-1985, severity level G3 eparate housing is required acc. to the system description ed cable tail separately covered Ex e terminals required
Storage temperature Relative humidity Shock resistance Vibration resistance Damaging gas Mechanical specifications Degree of protection Connection Mass Dimensions Data for application in connection with hazardous areas	-25 85 °C (-13 95 % non-condens shock type I, shock frequency range 10 cycles frequency range 5 each resonance designed for opera IP20 (module) , a s wire ends or shield wiring connection: approx. 750 g 57 x 107 x 132 mm	ing duration 11 ms, shock amplitude 15 g, number of shocks 18 0 150 Hz; transition frequency: 57.56 Hz, amplitude/acceleration ± 0.075 mm/1 g; 10 100 Hz; transition frequency: 13.2 Hz amplitude/acceleration ± 1 mm/0.7 g; 90 minutes at tion in environmental conditions acc. to ISA-S71.04-1985, severity level G3 eparate housing is required acc. to the system description ed cable tail separately covered Ex e terminals required (2.2 x 4.2 x 5.2 inch)
Storage temperature Relative humidity Shock resistance Vibration resistance Damaging gas Mechanical specifications Degree of protection Connection Mass Dimensions Data for application in connect with hazardous areas EU-Type Examination Certificate	-25 85 °C (-13 95 % non-condens shock type I, shock frequency range 10 cycles frequency range 5 each resonance designed for opera IP20 (module) , a s wire ends or shield wiring connection: approx. 750 g 57 x 107 x 132 mm on	ing duration 11 ms, shock amplitude 15 g, number of shocks 18 1 150 Hz; transition frequency: 57.56 Hz, amplitude/acceleration ± 0.075 mm/1 g; 10 1 100 Hz; transition frequency: 13.2 Hz amplitude/acceleration ± 1 mm/0.7 g; 90 minutes at tion in environmental conditions acc. to ISA-S71.04-1985, severity level G3 Reparate housing is required acc. to the system description ed cable tail separately covered Ex e terminals required (2.2 x 4.2 x 5.2 inch)
Storage temperature Relative humidity Shock resistance Vibration resistance Damaging gas Mechanical specifications Degree of protection Connection Mass Dimensions Data for application in connect with hazardous areas EU-Type Examination Certificate Marking	-25 85 °C (-13 95 % non-condens shock type I, shock frequency range 10 cycles frequency range 5 each resonance designed for opera IP20 (module) , a s wire ends or shield wiring connection: approx. 750 g 57 x 107 x 132 mm	ing duration 11 ms, shock amplitude 15 g, number of shocks 18 1 150 Hz; transition frequency: 57.56 Hz, amplitude/acceleration ± 0.075 mm/1 g; 10 1 100 Hz; transition frequency: 13.2 Hz amplitude/acceleration ± 1 mm/0.7 g; 90 minutes at tion in environmental conditions acc. to ISA-S71.04-1985, severity level G3 Reparate housing is required acc. to the system description ed cable tail separately covered Ex e terminals required (2.2 x 4.2 x 5.2 inch)
Storage temperature Relative humidity Shock resistance Vibration resistance Damaging gas Mechanical specifications Degree of protection Connection Mass Dimensions Data for application in connection thazardous areas EU-Type Examination Certificate Marking Galvanic isolation	-25 85 °C (-13 95 % non-condens shock type I, shock frequency range 10 cycles frequency range 5 each resonance designed for opera IP20 (module) , a s wire ends or shield wiring connection: approx. 750 g 57 x 107 x 132 mm on PTB 97 ATEX 1074 © II 2 G Ex d IIC 0	ing duration 11 ms, shock amplitude 15 g, number of shocks 18 150 Hz; transition frequency: 57.56 Hz, amplitude/acceleration ± 0.075 mm/1 g; 10 100 Hz; transition frequency: 13.2 Hz amplitude/acceleration ± 1 mm/0.7 g; 90 minutes at tion in environmental conditions acc. to ISA-S71.04-1985, severity level G3 eparate housing is required acc. to the system description ed cable tail separately covered Ex e terminals required (2.2 x 4.2 x 5.2 inch)
Storage temperature Relative humidity Shock resistance Vibration resistance Damaging gas Mechanical specifications Degree of protection Connection Mass Dimensions Data for application in connect with hazardous areas EU-Type Examination Certificate Marking	-25 85 °C (-13 95 % non-condens shock type I, shock frequency range 10 cycles frequency range 5 each resonance designed for opera IP20 (module) , a s wire ends or shield wiring connection: approx. 750 g 57 x 107 x 132 mm on PTB 97 ATEX 1074 © II 2 G Ex d IIC 0	ing duration 11 ms, shock amplitude 15 g, number of shocks 18 1 150 Hz; transition frequency: 57.56 Hz, amplitude/acceleration ± 0.075 mm/1 g; 10 1 100 Hz; transition frequency: 13.2 Hz amplitude/acceleration ± 1 mm/0.7 g; 90 minutes at tion in environmental conditions acc. to ISA-S71.04-1985, severity level G3 Reparate housing is required acc. to the system description ed cable tail separately covered Ex e terminals required (2.2 x 4.2 x 5.2 inch)



Directive 2014/34/EU	EN 60079-0:2009 EN 60079-1:2007 EN 60079-26:2007 EN 61241-11:2006	
International approvals		
Marine approval		
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.pepperlfuchs.com	

