

Backplane bus isolator

RS-ISO.Master

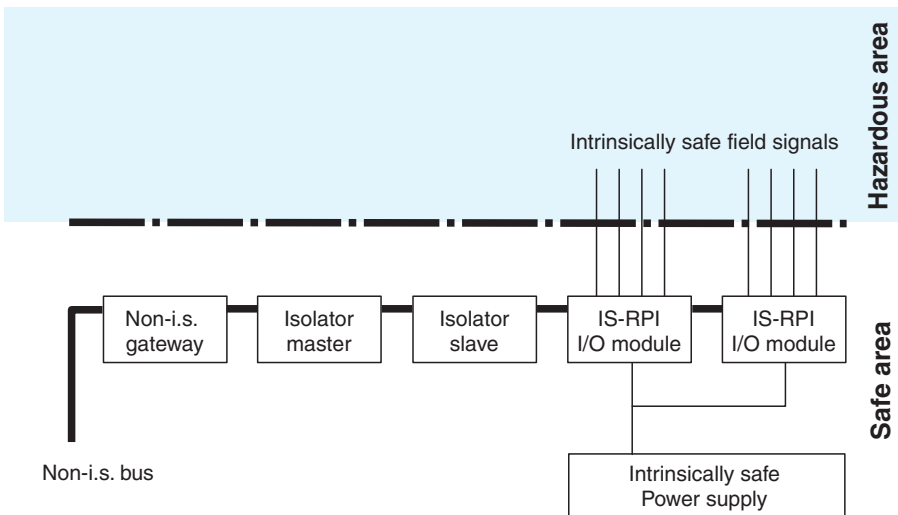
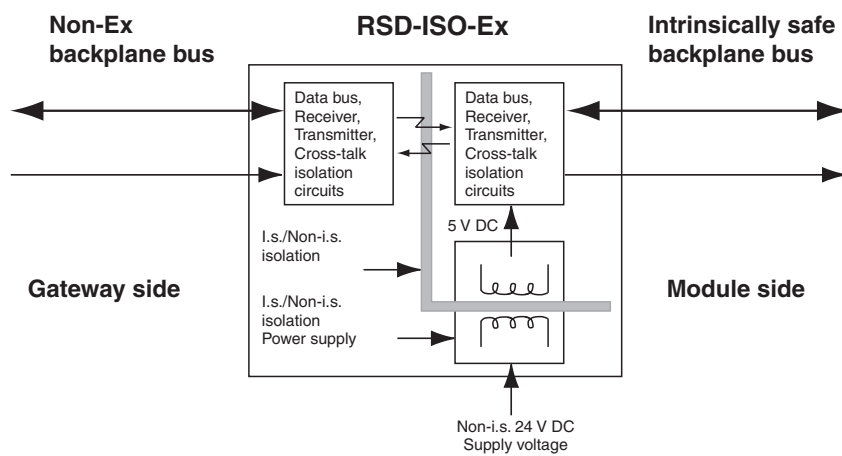
- For the simultaneous connection of non-intrinsically safe and intrinsically safe field signals to one IS-RPI system
- Non-intrinsically safe/intrinsically safe isolation of the internal backplane bus
- Satisfies the European standard 94/9 EG
- Satisfies the US standard NEC 500



Function

The bus isolator makes it possible to connect non-intrinsically safe and intrinsically safe field signals to the same IS-RPI system at the same time. One task it is responsible for is generating the intrinsically safe current for operating the intrinsically safe backplane bus segment from a non-intrinsically safe power supply. It also converts non-intrinsically safe backplane bus signals reliably into intrinsically safe backplane bus signals and vice versa. Preferably, the layout of the IS-RPI system provides for use in the safe area when the bus isolator is used. The type of isolation described above is achieved by using 2 devices: the RS-ISO.Master and the RSD2-ISO.Ex.Slave. Both devices must be fitted and connected in the manner shown on the front view. RS-ISO.Master and RSD2-ISO.Ex.Slave form a unit and can under the part code RSD-ISO-Ex be ordered only together.

Connection



Release date: 2020-04-30 Date of issue: 2020-04-30 Filename: 099777_eng.pdf

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

Pepperl+Fuchs Group
www.pepperl-fuchs.com

USA: +1 330 486 0002
pa-info@us.pepperl-fuchs.com

Germany: +49 621 776 2222
pa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091
pa-info@sg.pepperl-fuchs.com

PEPPERL+FUCHS

Technical Data

Supply		
Connection		not intrinsically safe backplane bus
Rated voltage	U_r	5 V DC
Internal bus		
Interface		manufacturer specific bus
Directive conformity		
Electromagnetic compatibility		
Directive 2004/108/EC		EN 61326-1:2006
Explosion protection		
Directive 94/9/EC		EN 60079-15:2005
Standard conformity		
Insulation coordination		EN 50178
Electromagnetic compatibility		NE 21:2006
Degree of protection		IEC 60529
Climatic conditions		DIN IEC 721
Ambient conditions		
Classification		3K3
Ambient temperature		-20 ... 70 °C (-4 ... 158 °F)
Storage temperature		-20 ... 100 °C (-4 ... 212 °F)
Relative humidity		95 % non-condensing
Shock resistance		30 g peak, 11 ms period
Vibration resistance		5 g , 10 ... 500 Hz according to IEC 60068-2-6
Damaging gas		acc. to ISA-S71.04-1985, severity level G3
Mechanical specifications		
Degree of protection		IP20, for on-site installation a separate housing is required with a minimum of IP54
Mass		approx. 200 g
Mounting		DIN rail mounting
Data for application in connection with hazardous areas		
Input		
Maximum safe voltage	U_m	253 V AC
Internal bus		customer specific
Declaration of conformity		
Group, category, type of protection, temperature class		⊕ II 3G Ex nA IIC T4
Galvanic isolation		
Input/power supply		no electrical isolation
Input/Internal Bus		no electrical isolation
Internal bus/power supply		no electrical isolation

Release date: 2020-04-30 Date of issue: 2020-04-30 Filename: 099777_eng.pdf

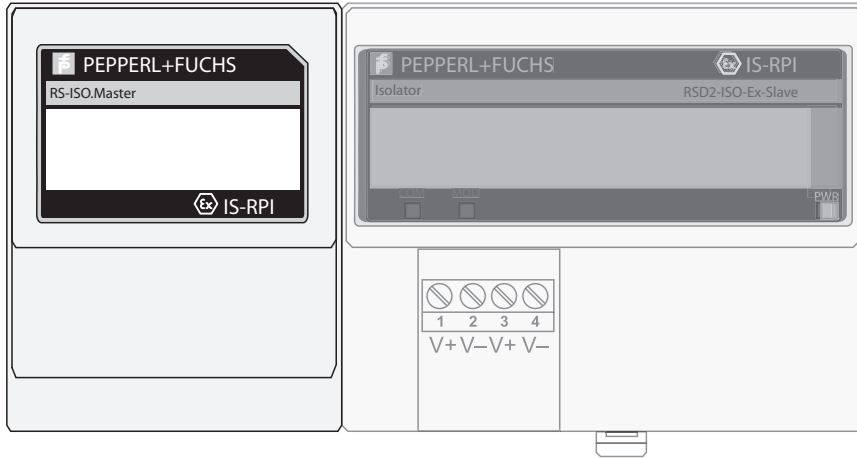
Assembly

Front View

RSD-ISO-Ex consisting of:

RS-ISO.Master

RSD2-ISO-Ex.Slave



Safety Information

EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity and instructions have to be observed.
For information see www.pepperl-fuchs.com.

Release date: 2020-04-30 Date of issue: 2020-04-30 Filename: 099777_eng.pdf

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

Pepperl+Fuchs Group
www.pepperl-fuchs.com

USA: +1 330 486 0002
pa-info@us.pepperl-fuchs.com

Germany: +49 621 776 2222
pa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091
pa-info@sg.pepperl-fuchs.com

 **PEPPERL+FUCHS**