- Connects the IS-RPI system to the control system via ControlNet
- Fieldbus intrinsically safe EEx ib IIC
- Device installation in Zone 1, Zone 2, or Zone 22
- Up to 24 gateways on one intrinsically safe bus network
- ControlNet international version 1.5 (intrinsically safe)
- Redundant coaxial transfer options possible
- Up to 8 I/O modules on one gateway via the backplane bus
- LED status indication
- Gateway can be replaced under voltage in zone 1 (hot swap)
- EMC acc. to NAMUR NE 21

Function

The RSD-GW-Ex2.CN gateway is the interface between the external ControlNet and the internal bus. It converts the protocols of the internal bus to ControlNet protocols and vice versa.

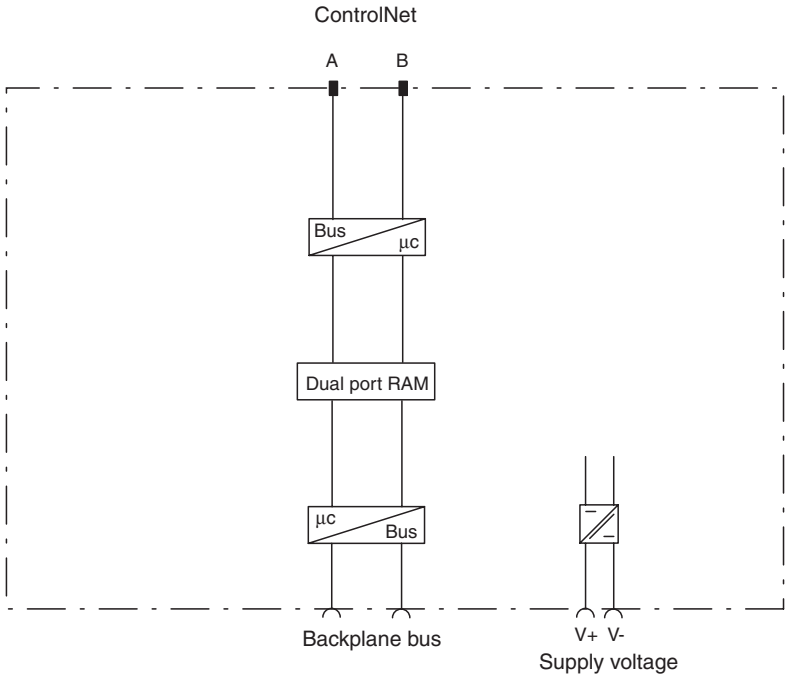
Up to 8 I/O modules can be connected to a gateway via the internal backplane bus. Communication with the I/O modules is performed via the address and data lines of the backplane bus.

Configuration and parameter assignment of the system can be performed by **PACT***ware*™.

HART telegrams are received over the ControlNet by the gateway and are forwarded on to the HART field devices connected to the I/O modules. HART communication can also be performed with **PACT***ware*™.

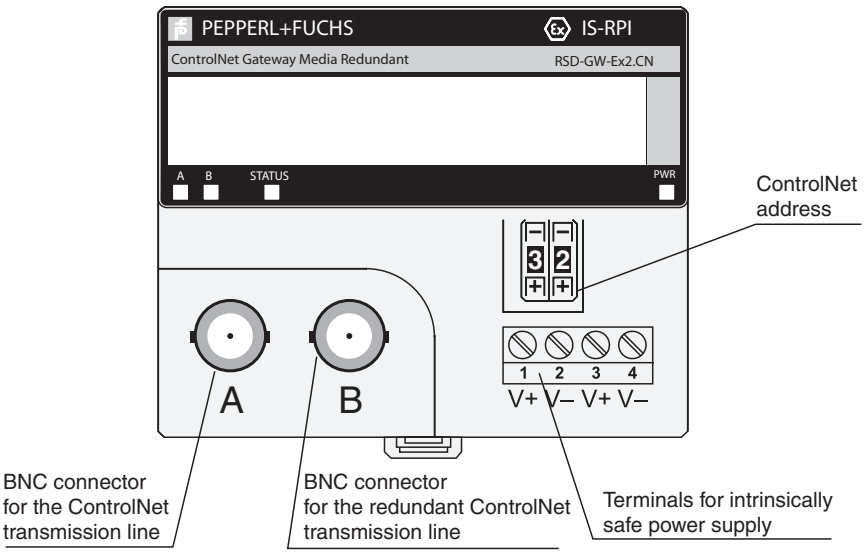
The gateway interface with the ControlNet is designed for media-redundant operation. The internal and external bus are galvanically isolated from the power supply.

Connection



Composition

Front View



Release date 2010-03-04 14:57 Date of issue 2010-03-04 039074_ENG.xml

Supply	
Connection	terminals V+, V-
Rated voltage	8.88 ... 9.5 V
Power loss	8 W
Power consumption	8.5 W
Internal bus	
Connection	backplane bus
Interface	manufacturer specific bus
Cycle time	1.6 ms
External bus	
Connection	BNC connection A, B
Interface	ControlNet international version 1.5, intrinsically safe
Transfer rate	5 MBit/s
Bus address	1 ... 99 , adjustable via switch
Directive conformity	
Electromagnetic compatibility	
Directive 2004/108/EC	EN 61326-1:2006
Explosion protection	
Directive 94/9/EC	EN 60079-0: 2006, EN 60079-11: 2007
Standard conformity	
Insulation coordination	EN 50178
Electrical isolation	EN 60079-11:2007
Electromagnetic compatibility	NE 21:2006
Protection degree	IEC 60529
Climatic conditions	IEC 60721
Ambient conditions	
Classification	3K3
Ambient temperature	-20 ... 70 °C (253 ... 343 K)
Storage temperature	-20 ... 100 °C (253 ... 373 K)
Relative humidity	95 % non-condensing
Shock resistance	15 g peak, 11 ms period
Vibration resistance	2 g , 10 ... 500 Hz according to IEC 60068-2-6
Damaging gas	acc. to ISA-S71.04-1985, severity level G3
Mechanical specifications	
Connection type	terminals, BNC connection
Core cross-section	≤ 2.5 mm^2
Protection degree	IP20, for in-situ installation a separate housing is required with a minimum of IP54
Mass	approx. 350 g
Mounting	DIN rail mounting
Data for application in connection with Ex-areas	
EC-Type Examination Certificate	DMT 99 ATEX E 007 X , for additional certificates see www.pepperl-fuchs.com
Group, category, type of protection	⟨Ex⟩ II 2 G Ex ib IIC T4
Temperature class	
Supply	only in connection with the power units RSD2-PSD2-Ex4.34, RSA6-PSD-Ex4.34
External bus	
Voltage U_o	5.4 V
Current I_o	160 mA
Internal bus	customer specific
Electrical isolation	
Internal/external bus	no electrical isolation
Internal bus/power supply	safe electrical isolation acc. to EN 60079-11: 2007, voltage peak value 60 V
External bus/power supply	safe electrical isolation acc. to EN 60079-11: 2007, voltage peak value 60 V

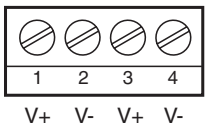
Supplementary information

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 2010-03-04 Date of issue 2010-03-04 039074_ENG.xml

Electrical connection

Terminal assignment



Application

- Connects conventional binary and analogue sensors as well as actuators to the control system via ControlNet
- HART communication with the field devices connected to the I/O modules
- Configuration via ControlNet

Notes

- Parameterisation of the I/O modules connected to the gateway via ControlNet
- 1 power supply channel for 1 gateway
- The gateway must be powered via the intrinsically safe power supplies RSD2-PSD2-Ex4.34 or RSA6-PSD-Ex4.34

Release date 2010-03-04 14:57 Date of issue 2010-03-04 039074_ENG.xml