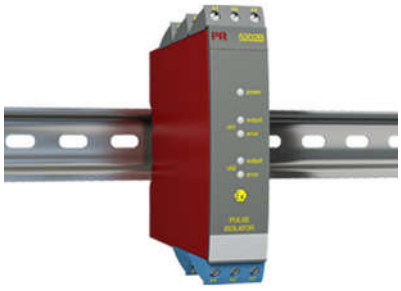
PERFORMANCE MADE SMARTER



Pulse isolator

5202B

– 2 channels - 2 or 4 outputs
– Dual output
– 5-port 3.75 kVAC galvanic isolation
– Cable error detection
– Universal supply by AC or DC

Application

- Pulse isolator with safety barrier for the supply of NAMUR sensors installed in the hazardous area.
- Pulse isolator with safety barrier for the detection of mechanical contacts installed in the hazardous area.
- One input signal can be used on two separate outputs.
- A cable error alarm can be detected on a separate output.

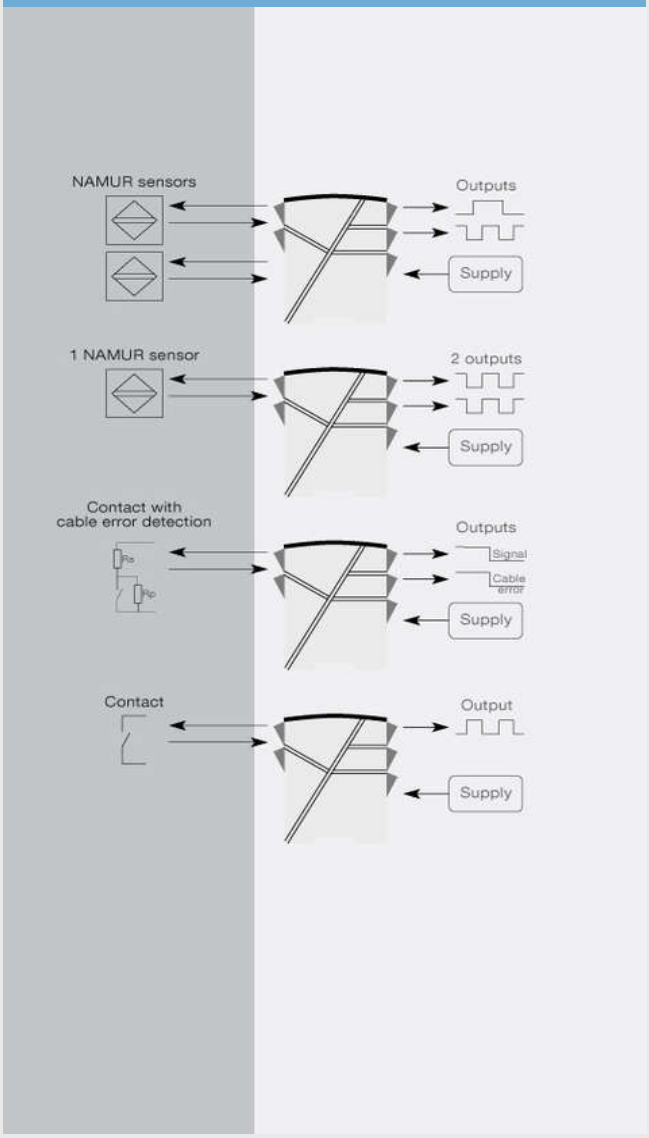
Technical characteristics

- PR5202B1 and 5202B2 have relays with change-over contacts or open NPN collectors available in the safe area.
- PR5202B4 has 4 SPST relays, which are activated simultaneously two and two, available in the safe area. Each relay can be programmed to the function N.O. or N.C.
- Inputs, outputs and supply are floating and galvanically separated.
- 5202B is designed according to strict safety requirements and is therefore suitable for application in SIL 2 installations.

Mounting / installation

- Mounted vertically or horizontally on a DIN rail. Up to 84 channels per meter can be mounted.

Applications



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Order:

Type	Output	
5202B	Open collector NPN	: 1
	2x1 relay	: 2
	2x2 relays	: 4

Environmental Conditions

Operating temperature..... -20°C to +60°C
Calibration temperature..... 20...28°C
Relative humidity..... < 95% RH (non-cond.)
Protection degree..... IP20

Mechanical specifications

Dimensions (HxWxD)..... 109 x 23.5 x 130 mm
Weight approx..... 230 g
Wire size..... 1 x 2.5 mm^2 stranded wire
Screw terminal torque..... 0.5 Nm

Common specifications

Supply

Supply voltage, universal..... 21.6...253 VAC, 50...60 Hz or 19.2...300 VDC
Fuse..... 400 mA SB / 250 VAC
Max. required power..... ≤ 1.5 W (2 channels), 5202B1 and 5202B2
Max. required power..... ≤ 2.0 W (2 channels), 5202B4
Internal power dissipation..... ≤ 1.5 W (2 channels), 5202B1 and 5202B2
Internal power dissipation..... ≤ 2.0 W (2 channels), 5202B4

Isolation voltage

Isolation voltage, test / working..... 3.75 kVAC / 250 VAC
PELV/SELV..... IEC 61140

Auxiliary supplies

NAMUR supply..... 8 VDC / 8 mA

EMC immunity influence..... < ±0.5%
Extended EMC immunity: NAMUR NE21, A criterion, burst..... < ±1%

Input specifications

Sensor types..... NAMUR according to EN 60947-5-6 / mechanical contact
Frequency range..... 0...5 kHz
Pulse length..... > 0.1 ms
Input resistance..... 1 kΩ
Trig level, signal..... < 1.2 mA, > 2.1 mA
Trig level, cable fault..... < 0.1 mA, > 6.5 mA

Output specifications

Relay output

Max. switching frequency..... 20 Hz
Max. voltage..... 250 VRMS
Max. current..... 2 AAC
Max. AC power..... 100 VA
Max. load at 24 VDC..... 1 A

NPN outputs

Max. switching frequency..... 5 kHz
Min. pulse length..... > 0.1 ms
Max. load, current / voltage..... 80 mA / 30 VDC

Voltage drop at 25 mA / 80 mA..... < 0.75 VDC / < 2.5 VDC

Observed authority requirements

EMC..... 2014/30/EU
LVD..... 2014/35/EU
EAC..... TR-CU 020/2011

Approvals

ATEX 2014/34/EU..... DEMKO 99ATEX127186, II (1) GD [EEx ia] IIC
UL..... UL 913, UL 508
EAC Ex TR-CU 012/2011..... RU C-DK.GB08.V.00410