

Pulse isolator

5202B

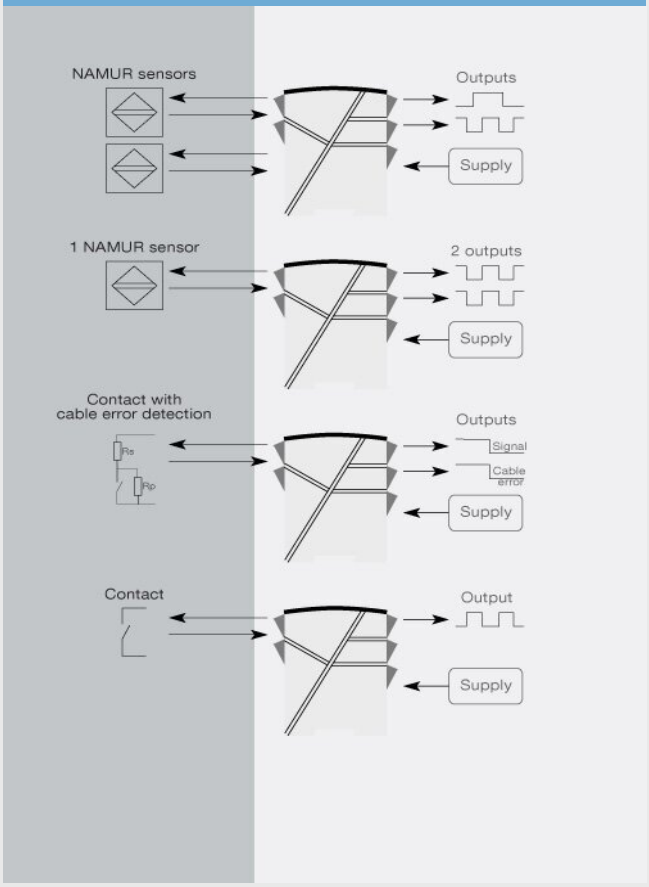
- 2 channels - 2 or 4 outputs
- Dual output
- 5-port 3.75 kVAC galvanic isolation
- Cable error detection
- Universal supply by AC or DC

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.

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

Applications



For pricing or any further information, please contact Omni Instruments Ltd.

Measurement and data acquisition solutions

Contact Details:
Tel: +44 1382 443000
Email: info@omni.uk.com

Website: www.omniinstruments.co.uk

Mailing Address: Unit 1, 14 Nobel Road, Wester Gourdie Industrial Estate, Dundee, DD2 4UH.

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
DIN rail type	DIN EN 60715/35 mm
Wire size	0.13...2.08 mm^2 AWG 26...14 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
Supply voltage, Ex variant 5202B1, -B2, -B4 (Um)	253 V
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
Programming	Jumpers
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 output

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
EAC Ex	TR-CU 012/2011

Approvals

ATEX	DEKRA 20ATEX0018X
IECEx	DEK 24.0013X
c UL us, UL 508	UL-US-L231911-11-81903002-0
c UL us, UL 913	UL-US-2422982-1
EAC Ex	EAEU KZ 7500361.01.01.10203
CCC	2026322310007185

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