

Ex SOLENOID / ALARM DRIVER



- 1- or 2-channel version
- Solenoid driver for Ex area
- 3- / 5-port 3.75 kVAC galvanic isolation
- Digitally controlled voltage supply for Ex area
- Universal supply by AC or DC



Application:

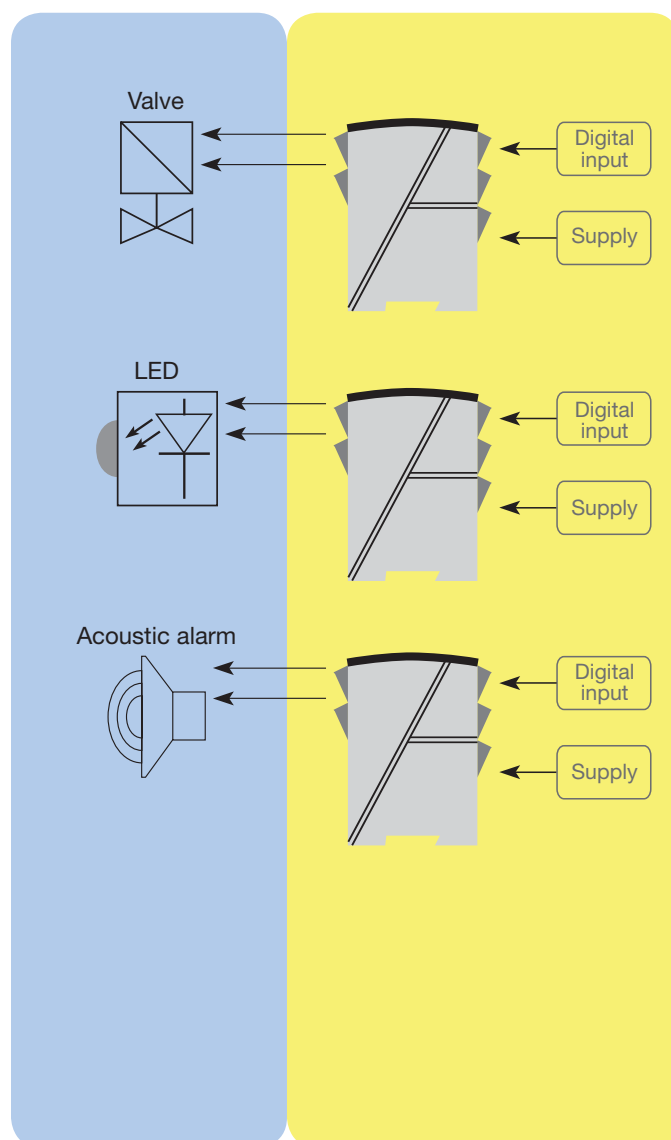
- Driver with safety barrier for the control of ON / OFF solenoids mounted in hazardous area.
- Driver with safety barrier for the supply of LEDs and acoustic alarms mounted in hazardous area.
- Voltage supply with ON / OFF control of other equipment.

Technical characteristics:

- PR5203B has a digital input per channel for the control of the Ex output voltage.
- Supply, inputs, and outputs are floating and galvanically separated.

Mounting / installation:

- Mounted vertically or horizontally on a DIN rail. By way of the 2-channel version up to 84 channels can be mounted per metre.

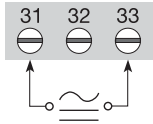


Order: 5203B

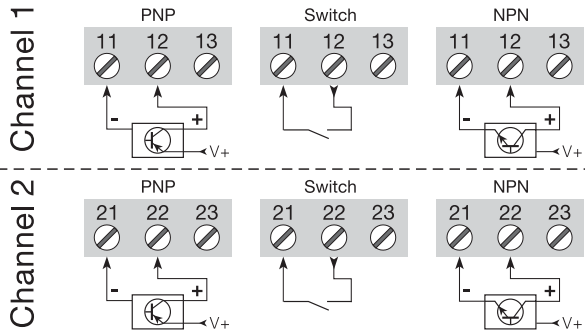
Type	Input	Ex barrier	Channels
5203B	PNP : 1	[EEx ia] type : F	Single : 1
	Switch : 2		
	NPN : 3		
		[EEx ia] type : H	Single : 1
		[EEx ia] type : I	Double : 2

Connections:

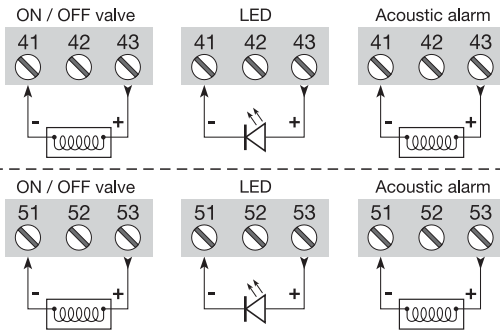
Supply:



Digital inputs:



Ex outputs:



Electrical specifications:

Specifications range:

-20°C to +60°C

Common specifications:

Supply voltage, universal	21.6...253 VAC, 50...60 Hz 19.2...300 VDC
Internal consumption.....	≤ 2 W (2 channels)
Max. consumption.....	≤ 4 W (2 channels)
Fuse.....	400 mA SB / 250 VAC
Isolation voltage, test / operation.....	3.75 kVAC / 250 VAC
Max. frequency.....	20 Hz
Calibration temperature.....	20...28°C

EMC immunity influence	< ±0.5% of span
Extended EMC immunity: NAMUR NE 21, A criterion, burst	< ±1% of span

Max. wire size.....	1 x 2.5 mm ² stranded wire
Screw terminal torsion.....	0.5 Nm
Relative humidity.....	< 95% RH (non-cond.)
Dimensions (HxWxD).....	109 x 23.5 x 130 mm
DIN rail type.....	DIN 46277
Protection degree.....	IP20
Weight	230 g

Inputs:

NPN and mechanical switch:

Trig level LOW	≤ 4.0 VDC
Trig level HIGH.....	≥ 7.0 VDC
Max. external voltage	28 VDC
Input impedance	3.48 kΩ

PNP:

Trig level LOW	≤ 4.0 V
Trig level HIGH.....	≥ 7.0 V
Max. external voltage	28 VDC
Input impedance	3.48 kΩ

Outputs:

Output voltage.....	See Ex data below
Output current	See Ex data below
Output ripple	< 40 mVRMS

EEx / I.S. approvals:

DEMKO 99ATEX126257	⊕ II (1) GD
	[EEx ia] IIC
Applicable for zone.....	0, 1, 2, 20, 21 or 22
UL	IS, Cl. I, Div. 1, Gr. A, B, C, D IS, Cl. I, zone 0 and 1, Gr. IIC IS, Cl. II, Div. 1, Gr. E, F, G
UL Control Drawing No.	5203QU01

GOST R approval:

VNIIFTRI, Cert. No. See homepage

Observed authority requirements:

EMC 2004/108/EC	EN 61326-1
LVD 2006/95/EC	EN 61010-1
PELV/SELV.....	IEC 364-4-41 and EN 60742
ATEX 94/9/EC.....	EN 50014, EN 50020 and EN 50281-1-1
UL	UL 913, UL 508

Of span = of the presently selected range

Ex data:

Ex barrier type:	F	H	I
EEx approval:	[EEx ia] IIC	[EEx ia] IIC	[EEx ia] IIC
ATEX approval:	⊕ II (1) GD	⊕ II (1) GD	⊕ II (1) GD
U _m :	250 V	250 V	250 V
U _o :	28 VDC	28 VDC	28 VDC
I _o :	115 mADC	110 mADC	93 mADC
P _o :	0.81 W	0.77 W	0.65 W
L _o :	2 mH	2.6 mH	3 mH
C _o :	0.08 μF	0.08 μF	0.08 μF
V _{output} , unloaded min.:	22.0 VDC	22.0 VDC	22.0 VDC
V _{output} , loaded min.:	13.0 VDC	14.0 VDC	10.0 VDC
Output current, max.:	50.0 mADC	35.0 mADC	35.0 mADC