PERFORMANCE MADE SMARTER



Pulse isolator / switch amplifier

3202

– Input: NAMUR, NPN open collector, contact
– Output: 2 x relay or NPN transistor output
– 2.5 kVAC 4-port galvanic isolation
– Line Fault Detection (LFD) / cable break detection
– Power supply 16.8 VDC…31.2 VDC

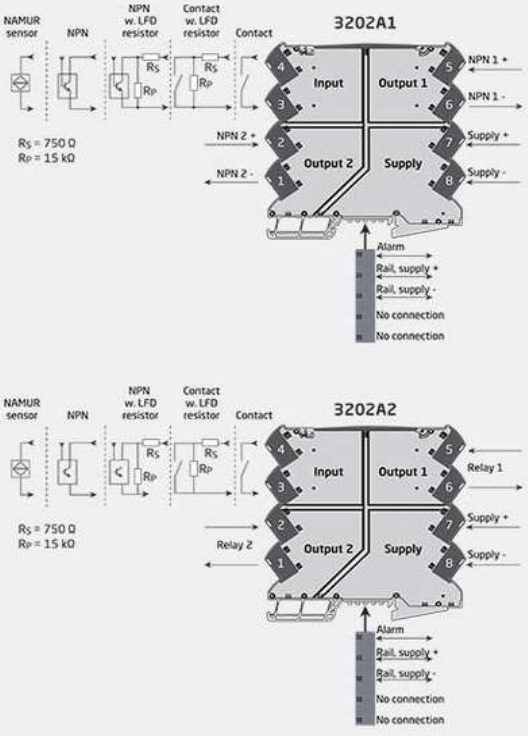
Functional highlights
- Interfaces a NAMUR sensor to typical control system input cards.
- High 4-port isolation provides surge suppression that protects the control system from transients and noise and eliminates ground loops.
- Provides simple splitter function: 1 in – 2 out.
- Monitor signal source for cable short-circuit or cable break with alarm function on secondary output, power rail and LED status.
- The device can be mounted in Safe area or in Zone 2 / Division 2 areas.
- All terminals are over-voltage protected, polarity protected and short-circuit protected.

Technical highlights
- Output options: NPN transistor or mechanical relay.
- Response time: Relay < 20 ms / NPN < 0.1 ms.
- Collective DIN-rail alarm.
- Line Fault Detection (LFD) / cable break detection.
- Wide ambient temperature range -25...70°C.
- NAMUR NE21, NE44.
- Conforms to IEC 60947 standard - switch amplifiers for NAMUR sensors.

Programming
- Easy configuration via DIP-switches.

Mounting
- Units can be mounted side by side, horizontally and vertically, without air gap on a standard DIN rail, even at 70°C ambient temperature.
- Units can be supplied separately or installed on PR 9400 power rail.
- The narrow 6.1 mm housing allows up to 163 units per meter.

Applications



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Order

Type	Version			
3202	Pulse isolator / switch amplifier, NPN output	: A1	With power rail connector / terminals	: -
	Pulse isolator / switch amplifier, relay output	: A2	Supplied via terminals	: -N

Example: 3202A1-N (Pulse isolator / switch amplifier, NPN output, supplied via terminals)

Environmental Conditions

Operating temperature	-25°C to +70°C
Storage temperature	-40°C to +85°C
Calibration temperature	20...28°C
Relative humidity	< 95% RH (non-cond.)
Protection degree	IP20
Installation in	Pollution degree 2 & meas. / overvoltage cat. II

Mechanical specifications

Dimensions (HxWxD)	113 x 6.1 x 115 mm
Weight approx.	70 g (3202A1) / 80 g (3202A2)
DIN rail type	DIN EN 60715/35 mm
Wire size	0.13...2.5 mm^2 / AWG 26...12 stranded wire
Screw terminal torque	0.5 Nm

Common specifications

Supply

Supply voltage	16.8...31.2 VDC
Max. power dissipation	0.65 W (3202A1) / 0.95 W (3202A2)
Max. required power	≤ 1.2 W

Isolation voltage

Isolation voltage, test / working	2.5 kVAC / 300 VAC (reinforced)

Auxiliary supplies

Sensor supply limitation	8.2 VDC, max. 8.2 mA @ 0 VDC

Input specifications

NAMUR input

NAMUR according to	EN 60947-5-6
Trig level LOW	< 1.2 mA
Trig level HIGH	> 2.1 mA
Sensor supply	8.2 VDC

NPN and mechanical switch

Max. input frequency	5 kHz
Trig level LOW	< 1.2 mA
Trig level HIGH	> 2.1 mA
Max. input voltage	24 VDC

Output specifications

Relay output

Max. voltage	250 VAC / 200 VDC
Max. current	2 AAC
Max. AC power	100 VA
Max. DC current, resistive load ≤ 30 VDC	2 ADC
Max. DC current, resistive load > 30 VDC	See manual for details
Max. switching frequency	20 Hz
Response time	< 20 ms

NPN output

Max. voltage	30 VDC
Max. switching frequency	5 kHz
Min. pulse length	> 0.1 ms
Max. voltage drop at 80 mA	2.5 VDC
Response time	< 0.1 ms

Observed authority requirements

EMC	2014/30/EU & UK SI 2016/1091
LVD	2014/35/EU & UK SI 2016/1101
ATEX	2014/34/EU & UK SI 2016/1107
RoHS	2011/65/EU & UK SI 2012/3032

Approvals

ATEX	KEMA 10ATEX0147 X
IECEx	KEM 10.0068X
UKEX	DEKRA 21UKEX0055X
c FM us	FM17US0004X / FM17CA0003X
c UL us, UL 61010-1	E314307
CCC	Pending