

## 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.

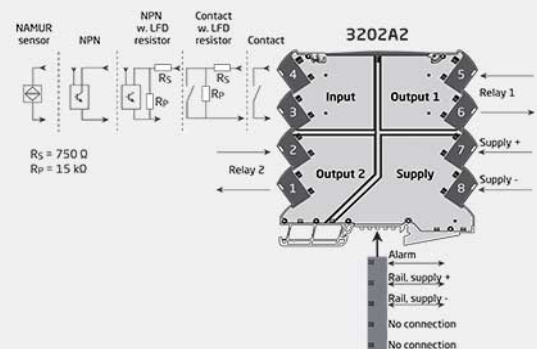
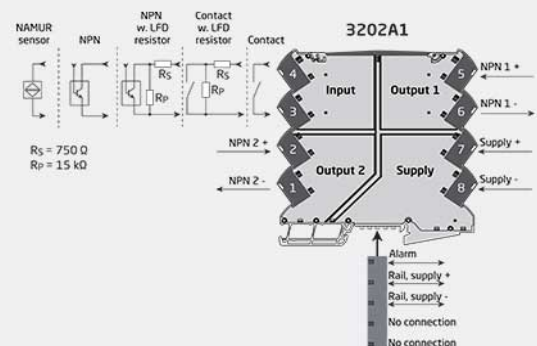
#### Programming

- 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



## 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 <sup>2</sup> / 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.....	2020322310003554