



SN 1A – Bushing Voltage Converter

 Certificate: ATEX



Technical Parameters:

Model	I M2 Ex d [ia] I I M2 Ex d I
Supply voltage	24V, 48V, 110V, 230V, 400V, 500V, 1000V, 1140 V/AC
Input power	Approximately 4.5 VA
Output 1 (terminal 1 and 2)	Galvanically separated contact of a reed relay, Maximum current – 150 mA Maximum voltage – 125 V
Output 2 (terminal C, E)	Open collector of an optoelectrical member Maximum current – 15 mA Maximum voltage – 20 V
Permitted supply voltage fluctuation	10 – 15%
Environment	Mines with a methane and coal dust explosion hazard
Cable cross-section	From 10 to 18 mm
Assembly instead of bushings	XGT 16, XGT 20, XGT 25, XGT 30, NV 32, NV 48, OW 1202
Ambient temperature	-5°C - +40°C
Relative humidity	Maximum of 90%
Dimensions	Diameter. 75 mm Length: 260 mm
Weight	Approximately 3.5 g

Use:

The SN 1A bushing converter is intended for sensing the presence of voltage from power circuits in a series of standardized voltages from 24 V, 50 Hz to 1140 V, 50 Hz. This voltage is converted to galvanically separated intrinsically safe circuits or telephone circuits (up to 60 V DC). The device is intended for an environment of mines with a methane and coal dust explosion hazard.

System composition:

- An intermediate piece for assembly instead of XGT 20/16 or NV 32, XGT 30 / 25 or NV 48 bushing for 1000 V and 1140 V converter instead of OW 1202 contactor bushing.
- A converter body containing a functional block.
- A bushing part covering the area of output terminals with a single bushing for connecting to power (telephone) circuits.

Description:

Converter output circuits are as follows:

- 1 x potential-free contact of a reed relay (terminal 1, 2)
- 1 x open collector of an optoelectrical element (terminal C, E)

The SN 1A body is made as Ex m I, intermediate pieces as Ex d I. Outputs according to the cover kind are made as Ex ia I or Ex d I.

Electrical components of the converter are protected by a steel case and sealing in a sealing compound. Input conductors are protected by a case and sealing with a sealing compound forming Ex m I enclosure. They are also protected by a non-explosive enclosure of the terminal block case. Output terminals are protected by a bushing part with a non-explosive Ex d I or Ex ia I bushing.

The catalogue has only those selected important parameters for your final decision. For project designs always ask for the user's guide for this product and any engineering consultation about possible uses.