Signal Converter

CNVS 4

Product code: PW-122-CSAI4-X

Reliability

Integrality

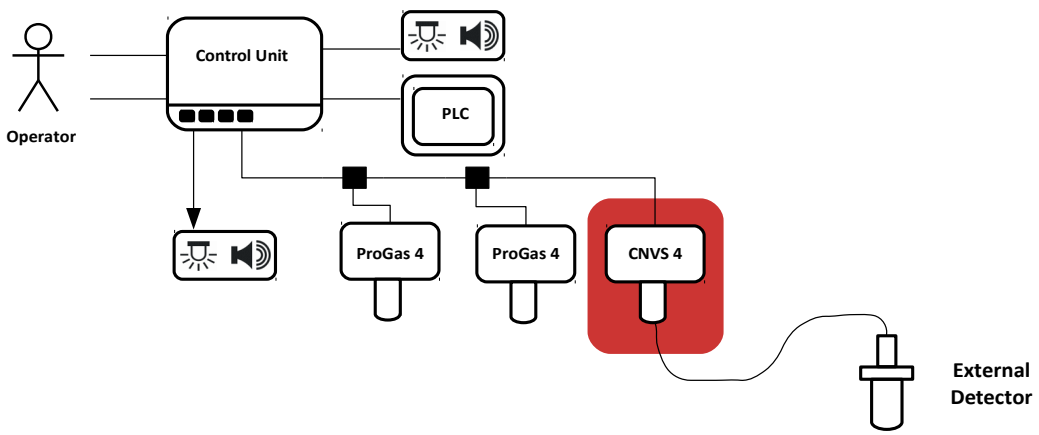
About the product

The Signal Converter CNVS 4 is designed as a component of a Gas Safety System and is intended for operation under harsh environmental conditions of industrial plants with a broad range of ambient parameter variations (high temperatures, presence of corrosive gases, hazardous vapours, moisture and dust).

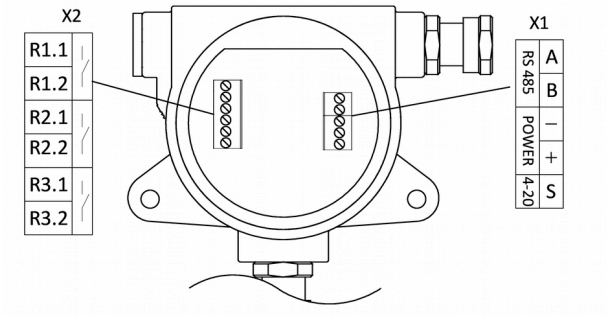
The signal converter is not an independent device, it must be combined with a measuring instrument to make up a typical gas detector. Key advantages of this device is remote operations - an external detectors can be installed far away from the converter at a poorly accessible location.

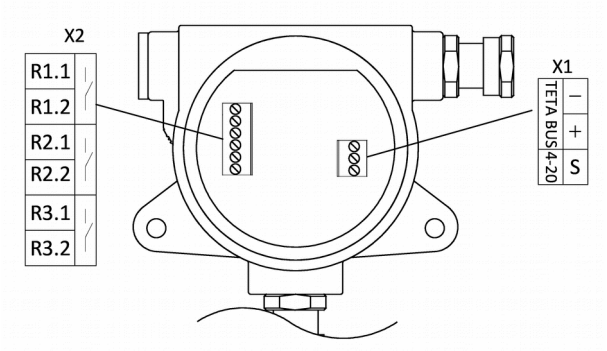
An important feature is also non-invasive calibration and configuration – calibration of the converter and setting of its parameters can be carried out with no need to open the converter enclosure or to shut down any other components of the Gas Safety System.

Location and role of the device in Gas Safety System



Electrical interface

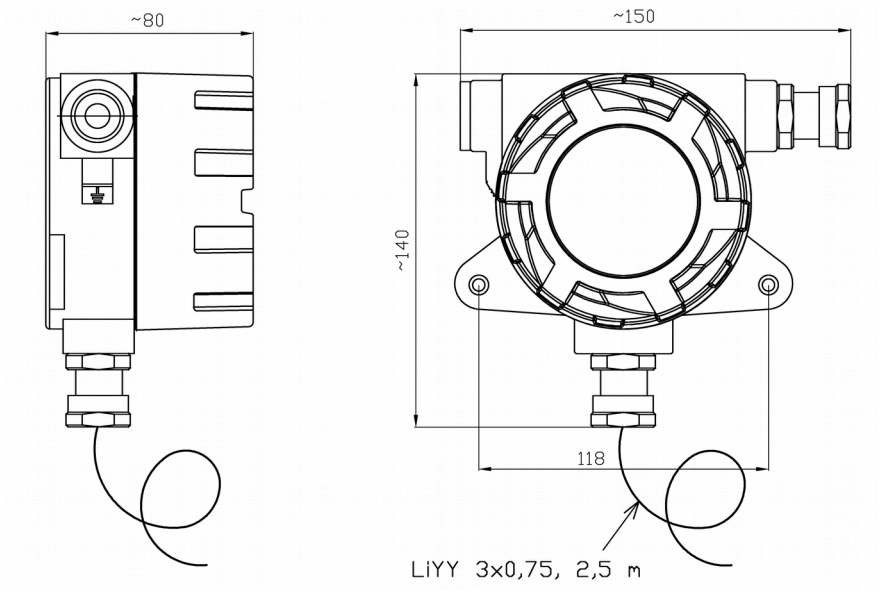




No.	Name	Pin	Description
X1	RS-485	A, B	Signal lines for RS-485 port
	POWER	-, +	Power supply
	4-20	S	Output of the 4..20 mA current loop
X2	R1.1 – R3.2	—⁀—	Relays terminals

No.	Name	Pin	Description
X1	TETA BUS	-, +	Signal and supply line Teta Bus port
	4-20	S	Output of the 4..20 mA current loop
X2	R1.1 – R3.2	—⁀—	Relays terminals

Dimension



Technical specification

Power supply • V_{CC} • Power	15 – 50 V ⎓ 0.5 - 4 W (the value doesn't include the external gas detector supply current)	
Environment	In operation	Storage
• Ambient temperatures Ta • Humidity • Pressure	-40 – +85 °C 10 – 90% long term, 0 – 99% short term, without condensation 1013 ± 10% hPa	0 – 40 °C 30 – 90% long term
IP	IP 63	
Analog input 4 – 20 mA • R_{IN} • I_{CC_MAX} (maximum power supply current of the external dectector)	100 Ω 200 mA	
Analog output 4 – 20 mA • Output type • R_{load_MAX} (source mode) • U_{S_MAX} (sink mode)	Sink / source 300 Ω 30 V (max. voltage between pins „S" and „-")	
Digital output parameters • Relays	3x Floating contacts, 24 V ⎓ / 0.3 A, Not protected against overloading	

Digital communication parameters • RS-485 • Teta	• RS-485, Modbus ASCII, Sigma Bus, 19200 Bd 7E1 • Teta Bus
Protection class	III
Dimension • Power cord	2.5 m
Cable glands • Cable diameter range • External thread	According to the device configuration below M20 x 1.5
Acceptable cables	0.5 – 2.5 mm^2 (cable lugs 2 x 1 mm^2 or 2 x 0.75 mm^2 should be used for double wires)
Enclosure	Aluminium spray epoxy
Weight	About 1.2 kg
Mounting	• To the supporting structure, 2 screw holes M6, hole spacing 118 mm with a minimum distance from the wall • We recommend using mounting brackets WM8

Product marking

CNVS 4 Signal Converter PW-122-CSAI4-[D]-[E]-[DI]-[AI]-[WI]-[G]

[D] **Dispaly**	0	Without
[E] **Enclosure**	AL	Aluminium, spray epoxy
[DI] **Digital interface**	485	RS-485
	Teta	Teta Bus – *under development*
[AI] **Analog interface**	0-0	Without
	420-PK	4 – 20 mA (sink/source) + 3 x relay
[WI] **Wireless interface**	0	Without
	BT	Wireless interface allowing remote detector calibration
[G] **Cable gland**	0	Without
	STD.NB03	Nickel plated brass, regulated clamping range 7 – 13 mm

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