



DATCON

INDUSTRIAL MEASUREMENT

DT1315 ...



Intrinsically safe output isolators

Product features:

- 0–20 mA / 4–20 mA / 0–10 V inputs
- 0–20 mA / 4–20 mA / 0–10 V outputs
- Non-linearity: 0,01 %
- Temperature-coefficient: 50 ppm / °C
- 19–29 VDC supply voltage
- TS-35 rail mounting 12,5 mm width
- 9 different types



DT1315 <input type="checkbox"/> <input type="checkbox"/>		OUTPUT			
		I0	I4	U10	
		0–20 mA	4–20 mA	0–10 V	
INPUT	I0	0–20 mA	●	●	●
	I4	4–20 mA	●	●	●
	U10	0–10 V	●	●	●

The **DT1315 ... Intrinsically safe output isolators** provide signal transmission between the control equipment and the signal sources located in the safe area, and the signal converters, intervening devices and field displays that work in Zone 0 or Zone 1 areas, isolating galvanically the input, the output, and the power supply.

The input may be 0–20 mA, 4–20 mA or 0–10 V; the output may be 0–20 mA, 4–20 mA or 0–10 V.

The transmission-parameters of the isolators are outstandingly good: the non-linearity is <0,01 %, and the temperature coefficient < 50 ppm/°C.

The supply voltage range is 19...29 VDC, therefore the apparatus is intensity refer to the supply voltage.

Technical specifications

Intrinsical safety sata:

Certification: BKI 05 ATEX 020 X
Protection marking: II (1) GD [EEx ia] IIC / IIB (-20 °C < Ta < 50 °C)

Safety data:

Uo [V]	Io [mA]	Po [W]	IIC		IIB	
			Co [nF]	Lo [mH]	Co [nF]	Lo [mH]
19,1	91	0,57	150	4	450	12

Um: 250 Veff

Input parameters:

Input signal: DC current or DC voltage
Ranges: see the table on the previous page
Input resistance (current input): 77 ohm
Input resistance (voltage input): 1 Mohm
Overdrive capacity: 5 %

Output parameters:

Output signal: DC current or DC voltage
Ranges: see the table on the previous page
Burden (current output): 800 ohm (max.)
Load (voltage output): 500 ohm (min.)
Error of the output signal: 0.05 % (max.)
Non-linearity: 0,01 % (max.)
Temperature-coefficient: 50 ppm / °C (max.)
Supply-voltage effect: no
Response time: 10 ms (10–90 %)

Galvanic isolation:

Operating isolation voltage: 250 Veff (between the input, the output, and the supply voltage terminals)
Test voltage: 2500 VDC

Power supply:

Supply voltage: 19–29 VDC
Consumption: 1,8 W

Ambient conditions:

Operatind temperature range: 0–50 °C
Relative humidity: 90 % (max., non-condensing)
Place of installation: safe area
Installation: with 5mm space

Elektromagnetic compatibility (EMC):

accordance with the standard EN 61326:2000
Immunity: -B- criterion
Noise emission: -A- class

Data in general:

Housing: terminal assembly box, rail mounting on a TS-35 rail
material: polyamide PA6.6
Connection: screw-fixed type connection
Cross-section of the connected cable: 2,5 mm² (max.)
Dimensions: 12,5 x 99 x 115 mm (width x height x depth)
Weigh: 0,15 kg
Protection: IP 20

The Manufacturer maintains the right to change the technical data.