

Product Information

Isolating Signal Converter TV501Ex

Intrinsically safe outputs



Characteristics

Isolating signal converter TV501 can be used to isolate and convert 0/4..20 mA and 0/2..10 V signals to the hazardous area. The universal design of the in- and outputs and the wide range of supply voltage limits the devices into 2 models.

Technical data

Power supply
Supply voltage : 85..253 V AC / 110..125 V DC or 10..30 V AC/DC
Frequency AC : 40..400 Hz
Power consumption : < 3.5 VA
Operating temperature : -10..+55 °C
CE-conformity : ATEX-directive 2014/34/EU
Standards : EN 60079-0:2006, EN 60079-11:2007, EN 60079-25:2004, EN 61241-0:2006, EN 61241-11:2006
EMC-directive : 2014/30/EU / EN 61326-1:2013

Inputs
Current : 0/4..20 mA DC, selectable, $R_i = 25 \Omega$, overload max. 100 mA
Voltage : 0/2..10 V DC, selectable, R_i ca. 40 k Ω , overload max. 100 V
Span : adjustable approx. $\pm 5 \%$
Zero point : adjustable approx. $\pm 5 \%$

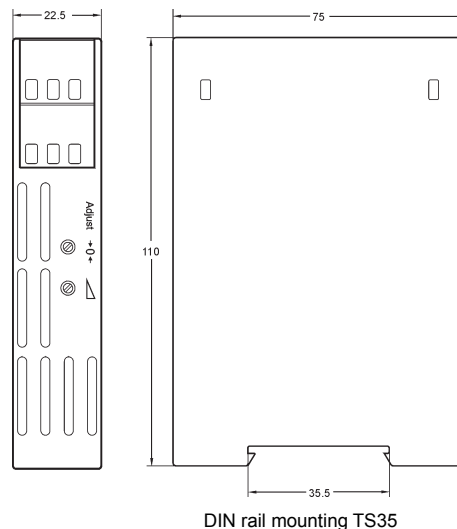
Explosion protection
Certification : TÜV 97 ATEX 1164
Approval : II (1) G [Ex ia Ga] IIC or II (1) D [Ex ia Da] IIIC

Outputs
Current : 0/4..20 mA DC, selectable, burden $\leq 320 \Omega$ (TV501Ex-...-10) burden $\leq 1 \text{ k}\Omega$ (TV501Ex-...-20)
Voltage : 0/2..10 V DC, selectable, max. 15 mA short-circuit-proof, (parallel with voltage output max. 5 mA)
Rise time (T_{90}) : < 20 ms
Accuracy : $\leq 0.3 \%$
Case : standard case polycarbonate 8020 UL94V-1 DIN rail mounting TS35
Weight : approx. 200 g
Electrical connection : screw terminals, max. 2.5 mm²
Protection class : case IP30, terminals IP20 acc. to BGV A3

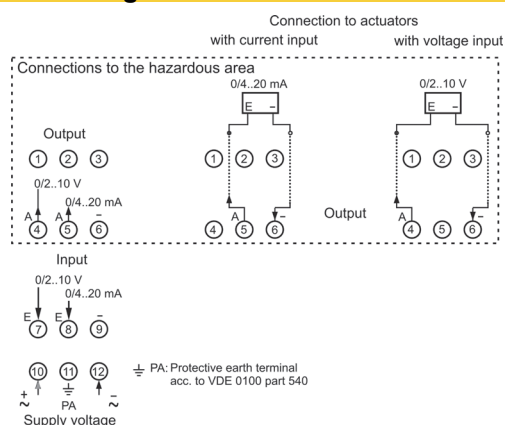
Mounting area

Mounting in dry, clean and well monitored areas
For more details see user manual.

Dimensions



Connection diagram



Ordering code

TV501Ex - 1. - 2. - 3.

1. Measuring range	
10	inputs 0/4..20 mA and 0/2..10V DC outputs 0/4..20 mA burden 320 Ω , 0/2..10 VDC
20	inputs 0/4..20 mA and 0/2..10V DC outputs 0/4..20 mA burden 1 k Ω , 0/2..10 VDC
2. Supply voltage	
0	85..253 V AC
5	10..30 V AC/DC
3. Options	
00	without option