

Features

- 1-channel isolated barrier
- 24 V AC/DC supply
- 2-wire SMART transmitter
- Output 4 mA ... 20 mA
- Low Ex i values
- Suitable for Hartmann and Braun transmitter

Function

This isolated barrier is used for intrinsic safety applications. It provides a 2-wire SMART transmitter with power in a hazardous area and transfers the signal to the safe area. It is designed to provide higher output voltage to the transmitter in the hazardous area.

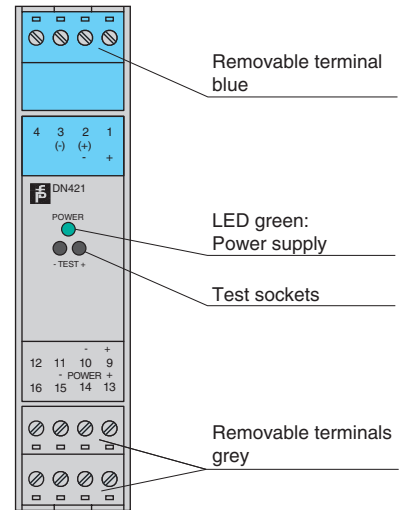
Digital signals may be superimposed on the analog values in the hazardous or safe area and are transferred bi-directionally.

Application

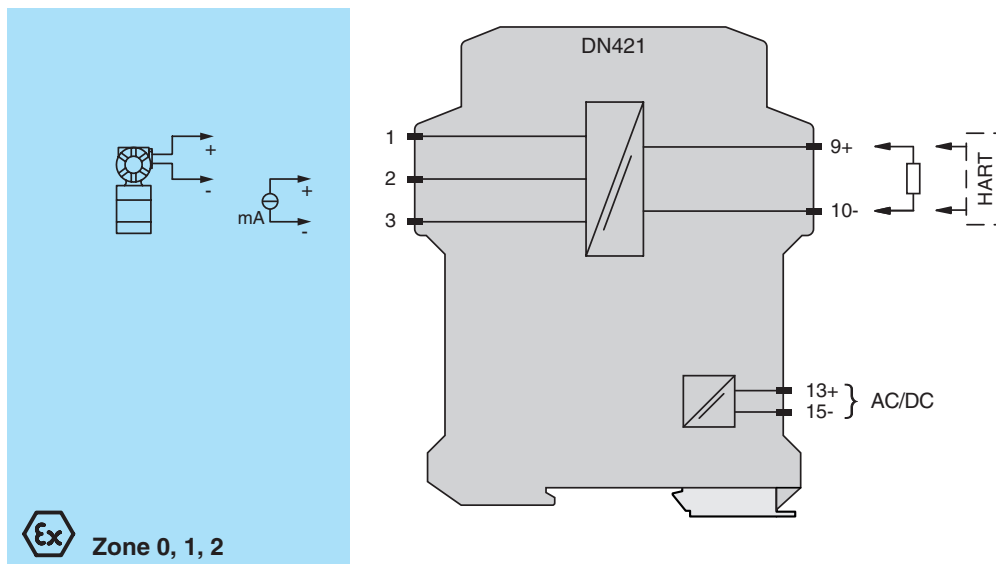
- The device supports the following SMART protocols:
- HART

Assembly

Front view



Connection



Release date 2009-07-16 08:40 Date of issue 2009-07-16 541861_ENG.xml

General specifications	
Signal type	Analog input
Supply	
Connection	terminals 13+ (L), 15- (N)
Rated voltage	20 ... 30 V DC or 20 ... 26.4 V AC
Ripple	within the supply tolerance
Power consumption	2.2 W / 3.1 VA
Input	
Connection	terminals 1, 2, 3
Input signal	4 ... 20 mA terminals 2+, 3-
Available voltage	≥ 16 V at 20 mA terminals 1+, 2-
Output	
Connection	terminals 9+, 10-
Load	0 ... 750 Ω
Output signal	4 ... 20 mA (overload > 25 mA)
Ripple	≤ 100 μA _{rms}
Transfer characteristics	
Deviation	at 20 °C (293 K), 4 ... 20 mA ≤ 20 μA incl. calibration, linearity, hysteresis, loads and fluctuations of supply voltage
Influence of ambient temperature	2 μA/°C
Frequency range	0.8 ... 15 kHz (-3 dB)
Rise time	22 ms
Settling time	200 μs
Electrical isolation	
Output/power supply	functional insulation acc. to EN 50178, rated insulation voltage 50 V AC
Directive conformity	
Electromagnetic compatibility	
Directive 89/336/EEC	EN 61326
Conformity	
Protection degree	IEC 60529
Ambient conditions	
Ambient temperature	-20 ... 60 °C (253 ... 333 K)
Mechanical specifications	
Protection degree	IP20
Mass	approx. 175 g
Dimensions	22.5 x 99 x 114.5 mm (0.89 x 3.89 x 4.5 in)
Data for application in conjunction with hazardous areas	
EC-Type Examination Certificate	TÜV 05 ATEX 2758
Group, category, type of protection	Ⓔ II (2)GD [EEx ib] IIC (-20 °C ≤ T _{amb} ≤ 60 °C)
Input	EEx ib IIC
Supply	
Safety maximum voltage U _m	250 V (Attention! The rated voltage can be lower.)
Equipment	terminals 1+, 2-
Voltage U _o	19.6 V
Current I _o	30.4 mA
Power P _o	596 mW
Equipment	
Equipment	terminals 2-, 3
Voltage U _i	30 V
Current I _i	100 mA
Voltage U _o	5 V
Current I _o	52 mA
Power P _o	64 mW
Output	
Safety maximum voltage U _m	250 V (Attention! The rated voltage can be lower.)
Electrical isolation	
Input/output	safe electrical isolation acc. to EN 50020, voltage peak value 375 V
Input/power supply	safe electrical isolation acc. to EN 50020, voltage peak value 375 V
Directive conformity	
Directive 94/9/EC	EN 50014, EN 50020
General information	
Supplementary information	EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity and instructions have to be observed where applicable. For information see www.pepperl-fuchs.com .

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