RN22 active barrier, power supply, analog signal doubler

Intrinsically safe 24 V\(_{\text{DC}}\) compact interface module for use in hazardous areas, SIL systems

Benefits:
- Intrinsically safe interface device suited for use in safety instrumented systems up to SIL 2 (SC 3) in accordance with IEC 61508
- Quick and easy wiring with screw or push-in terminals or power supply via power rail T-connector
- Easy access to frontside HART\(^\circledR\) connection taps
- Compact housing: up to two channels on 12.5 mm (0.49 in) for efficient use of space in control cabinets

Specs at a glance
- **Input** 0/4...20 mA / HART feeding/not feeding
- **Output** 0/4...20 mA / HART active/passive
- **Power Supply** 24 V DC

Field of application: The 1- or 2-channel RN22 active barrier powers analog instrument loops and **safety instrumented systems** up to SIL 2 (SC 3). The intrinsically safe, HART\(^\circledR\) transparent interface establishes a reliable link between field devices and process control. It interfaces with 2-/4-wire devices in hazardous areas and provides a second galvanically isolated signal output acc. to **NAMUR NE 175**. This opens a second channel for the process optimization domain without affecting the traditional automation system.

Features and specifications
### Power supplies & barrier

**Measuring principle**
Active barrier

**Measuring principle**
Active barrier

**Function**
- 1-channel
- 2-channel
- Signal doubler

**Loop power supply**
- 17,5 V ±1 V bei 20 mA open circuit
- Voltage: 24,5 V ±5 %

**Power Supply**
- 24 V DC

**Input**
- 0/4...20 mA / HART
- Feeding/not feeding

**Output**
- 0/4...20 mA / HART
- Active/passive
Power supplies & barrier

Certificates
ATEX II3G Ex tc IIIC Dc
CSA C/US AIS, I/2/ABCD
EAC [Ex ia Ga] IIIC, [Ex ia Da] IIIC, Ex ec IIIC Gc
JPN [Ex ia Ga] IIIC, [Ex ia Da] IIIC, Ex ec IIIC Gc
INMETRO [Ex ia Ga] IIIC, [Ex ia Da] IIIC, Ex ec IIIC Gc
NEPSI [Ex ia Ga] IIIC, [Ex ia Da] IIIC, Ex ec IIIC Gc
UK II3G Ex tc IIIC Dc
UK II(1)G [Ex ia Ga] IIIC, II(1)D [Ex ia Da] IIIC, II3G Ex ec IIIC Gc
ATEX IECEx II(1)G [Ex ia Ga] IIIC, II(1)D [Ex ia Da] IIIC, II3G Ex ec IIIC Gc
UL C/US
DNV

SIL
SIL 2 SC 3

Operation
HART

More information www.us.endress.com/RN22