

## NPEXA-HM31S single input, single output

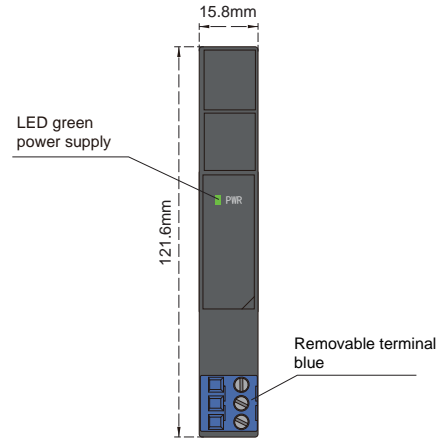
Input: 4 ~ 20 mA

Output: 4 ~ 20 mA (sink mode)

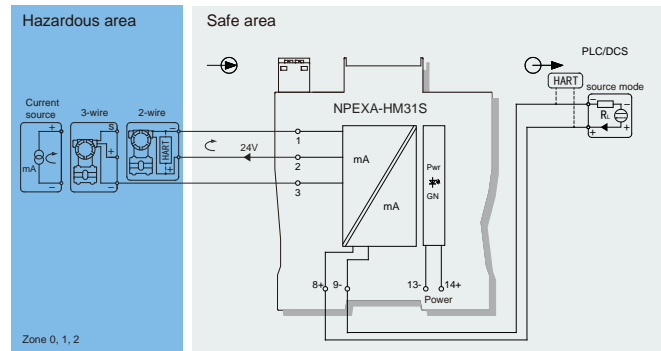
This isolated safety barrier detects loop current and converts it from a hazardous area into current (sink) signals to a safe area by isolation, and also provides transmitters with power in the hazardous area. It allows transmission of HART communication signals. The input, output, and power supply are galvanically isolated from each other.

### Technical data

Power supply:	18 V DC~32 V DC (Reverse power protection)
Power dissipation:	1.0 W (24V DC, single output)
Input signal:	4 ~ 20mA, HART
Input resistance:	approx. 75 Ω
Available voltage:	open-circuit voltage ≤ 26 V voltage: ≥ 15.5 V at 20 mA
Output signal:	4 ~ 20mA (sink), HART
Load resistance:	$R_L \leq [(U-3)/0.02]\Omega$ ; U: Loop power supply
Accuracy:	± 0.1%F.S.
Temperature drift:	0.005%F.S./°C
Response time:	≤ 2ms
Electromagnetic compatibility:	IEC 61326-3-1
Dielectric strength:	≥ 2500 V AC (intrinsically safe side / non-intrinsically safe side) ≥ 500 V AC (Power supply side /non-intrinsically safe side)
Insulation resistance:	≥ 100 MΩ ( Input /Output/Power supply)
Operation temperature:	-20°C ~ +60°C
Storage temperature:	-40°C ~ +80°C
Dimension:	15.8 mm (W) × 121.6 mm (H) × 104.8 mm (D)



### Wiring diagram



### Explosive-proof parameters

National Supervision and Inspection Center for Explosion Protection and Safety of Instrumentation (NEPSI)

Explosive-proof grade: [Ex ia Ga] II C

Um: 250 V

Certified parameters (Terminals 1, 3):

Uo=5V

II C : Co=70μF

II B : Co=700μF

II A : Co=700μF

Certified parameters (Terminals 2, 3):

Uo=28V, Io=93mA, Po=651mW

II C : Co=0.08μF , Lo=4mH

II B : Co=0.6μF , Lo=12mH

II A : Co=2.1μF , Lo=32mH