

## NPEXB-KM31

Single input, single output

Input: 4 ~ 20 mA  
Output: 4 ~ 20 mA

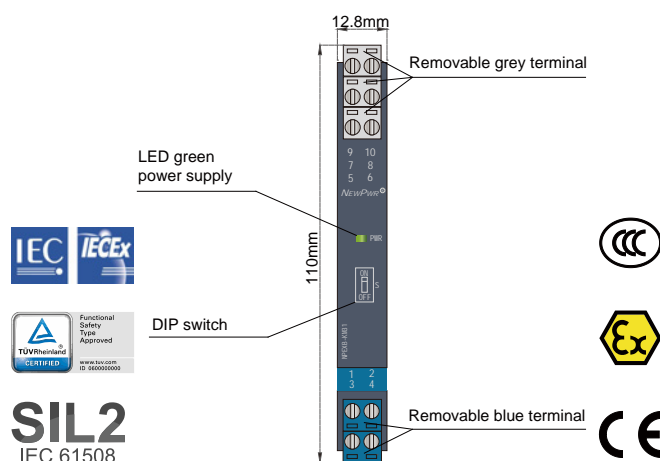
Analog output isolated barrier, it transfers 4~20mA signals from a safe area to a hazardous area. It allows transmission of HART communication signals. The input, output, and power supply are galvanically isolated from each other. The LFD function of output short-circuit/ line-break can be closed by the DIP switch.

### Parameters

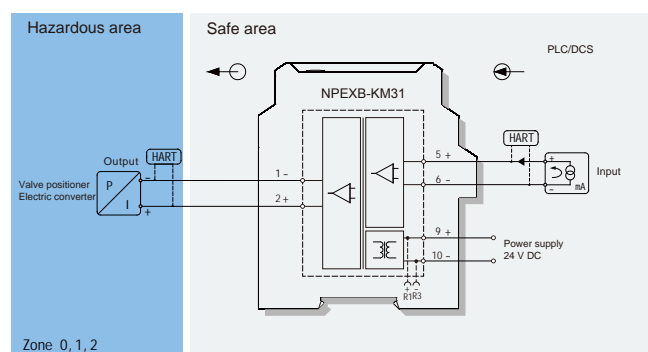
Power supply:	20V DC ~ 30V DC (Reverse power protection)
Power dissipation:	1.0W
Input signal:	4 ~ 20mA, HART
Output signal:	4 ~ 20mA, HART
Load resistance:	80 ~ 800 $\Omega$
Input voltage drop:	$\leq 1.2V$
Line Failure state:	When the output load resistance was detected less than 30 $\Omega$ , the output is in the fault of short circuit. When the output load resistance was detected more than 8000 $\Omega$ , the output is in the fault of line breakage. If the output is in the fault, the input current value is limited to within 1mA and the output current value is limited to 3mA.
Accuracy:	0.1%F.S.
Temperature drift:	30ppm/ $^{\circ}C$
Response time:	$\leq 2ms$
Electromagnetic compatibility:	IEC 61326-3-1
Dielectric strength:	$\geq 3000V$ AC (intrinsically safe side / non-intrinsically safe side) $\geq 1500V$ AC (Power supply/non-intrinsically safe side)
Insulation resistance:	$\geq 100M\Omega$ (Input /Output/Power supply)
Operation temperature:	-40 $^{\circ}C$ ~ +70 $^{\circ}C$
Storage temperature:	-40 $^{\circ}C$ ~ +80 $^{\circ}C$
Dimension:	12.8mm (W) $\times$ 110mm (H) $\times$ 117mm (D)
Safe state:	The output signal is less than 3.6mA or greater than 21.5mA

### DIP switch settings

Switch	State	ON	OFF
S		LFD on	LFD off



### Wiring diagram



### Explosive-proof parameters

Germany TÜV (TÜV Rheinland)

Safety Integrity Level (SIL): SIL2, SC3 according to IEC 61508

Ex marking: EU:  $\text{Ex}$  I (M1) [Ex ia Ma] I

II (1)G [Ex ia Ga] IIC

II (1)D [Ex ia Da] IIIC

II 3(1)G Ex ec [ia Ga] IIC T4 Gc

IECEx: [Ex ia Ma] I

[Ex ia Ga] IIC

[Ex ia Da] IIIC

Ex ec [ia Ga] IIC T4 Gc

Um: 250V

Certified parameters (Terminals 1, 2):

Uo=25.2V, Io=93mA, Po=586mW

IIC: Co=0.107 $\mu$ F, Lo=4.2mH

IIIC(IIB): Co=0.82 $\mu$ F, Lo=16.4mH

IIA: Co=2.9 $\mu$ F, Lo=32.9mH

I: Co=4.8 $\mu$ F, Lo=53.9mH