

NPEXB-CM31

single input, single output

Input: 4 ~ 20 mA

Output: 4 ~ 20 mA

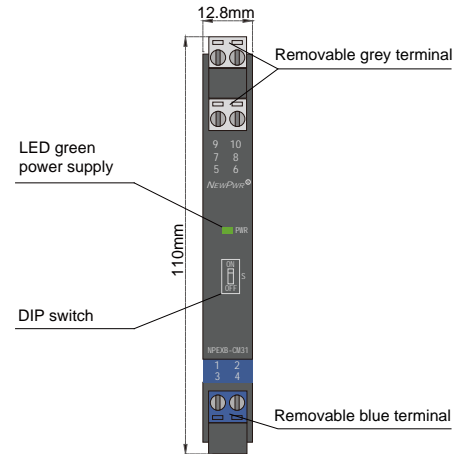
Accepts 4~20mA signal from safe area to drive executive mechanisms in hazardous area. It allows transmission of HART communication signals. The input, output, and power supply are galvanically isolated from each other. The LFD function of output short-circuit/ line-break can be closed by the DIP switch on the front side.

Parameters

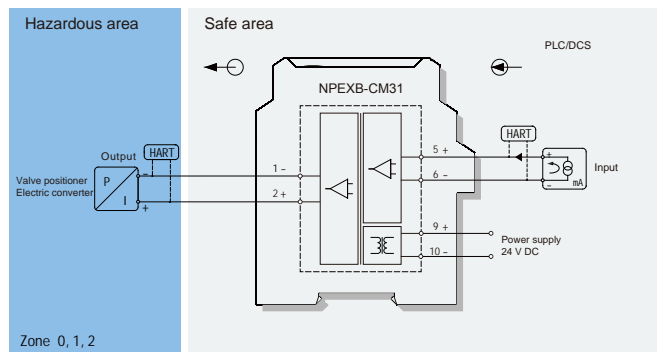
Power supply:	18V DC ~ 60V DC (Reverse power protection)
Power dissipation:	1W
Input signal:	4 ~ 20mA, HART
Output signal:	4 ~ 20mA, HART
Load resistance:	80Ω ~ 800Ω
Input voltage drop:	≤ 1.2V
Line Failure state:	When the output load resistance was detected less than 80Ω, the output is in the fault of short circuit. When the output load resistance was detected more than 6000Ω, 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/°C
Response time:	≤ 2ms
Electromagnetic compatibility:	IEC 61326-3-1
Dielectric strength:	≥ 3000V AC (intrinsically safe side / non-intrinsically safe side) ≥ 1500V AC (Power supply/non-intrinsically safe side)
Insulation resistance:	≥ 100MΩ (Input /Output/Power supply)
Operation temperature:	-20°C ~ +60°C
Storage temperature:	-40°C ~ +80°C
Dimension:	12.8mm (W) × 110mm (H) × 117mm (D)

DIP switch settings

Switch	State	ON	OFF
S		LFD on	LFD off



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: 250V

Certified parameters (Terminals 1, 2):

Uo=27.3V, Io=92mA, Po=628mW

II C: Co=0.058μF, Lo=2.8mH

II B: Co=0.65μF, Lo=8.4mH

II A: Co=2.25μF, Lo=22.4mH