

AI Isolated Barrier

NPEXA-CM31

Single input, single output

NPEXA-CM311

Single input, double outputs

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

Analog input isolated barrier, it provides transmitters with power in the hazardous area and transfers 4~20mA signals from a hazardous area to a safe area. It allows transmission of HART communication signals. The input, output, and power supply are galvanically isolated from each other.

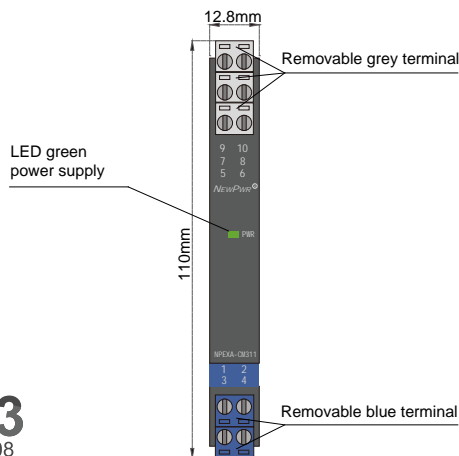


Parameters

Power supply:	18V DC ~ 60V DC (Reverse power protection)
Power dissipation:	0.8W (24V, single output) 1.2W (24V, double outputs)
Input signal:	4 ~ 20mA, HART
Input resistance:	approx. 75Ω
Available voltage:	open-circuit voltage ≤ 26V voltage: ≥ 16V at 20mA
Output signal:	4 ~ 20mA, HART
Load resistance:	$R_L \leq 550\Omega$
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)
Safe state:	The output signal is less than 3.6mA or greater than 21.5mA

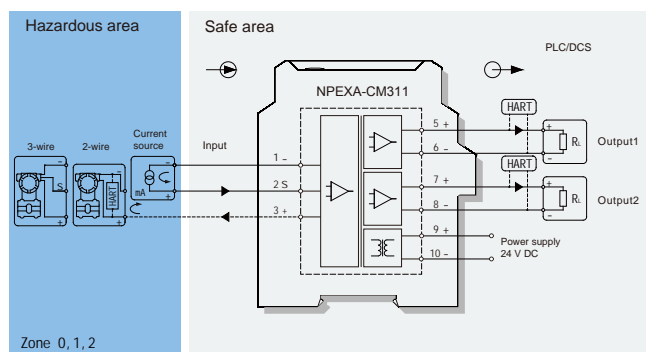
Other ordering information

Type	Input	Output1	Output2	Power supply
NPEXA-CM32	4 ~ 20mA	1 ~ 5V	-----	Terminal
NPEXA-CM35	0 ~ 20mA	0 ~ 10V	-----	Terminal
NPEXA-CM312	4 ~ 20mA	4 ~ 20mA	1 ~ 5V	Terminal
NPEXA-CM322	4 ~ 20mA	1 ~ 5V	1 ~ 5V	Terminal
NPEXA-CM355	0 ~ 20mA	0 ~ 10V	0 ~ 10V	Terminal



SIL3
IEC 61508

Wiring diagram



Explosive-proof parameters

Safety Integrity Level (SIL): SIL3, SC3 according to IEC 61508
National Supervision and Inspection Center for Explosion Protection and Safety of Instrumentation (NEPSI)
Ex marking: [Ex ia Ga] IIC
Um: 250V
Certified parameters (Terminals 1, 2):
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=0.058μF, Lo=2.8mH
II B: Co=0.45μF, Lo=8.4mH
II A: Co=1.50μF, Lo=22.4mH