

NPEXA-KM31

Single input, single output

NPEXA-KM311

Single input, double outputs

Input: 4 ~ 20 mA

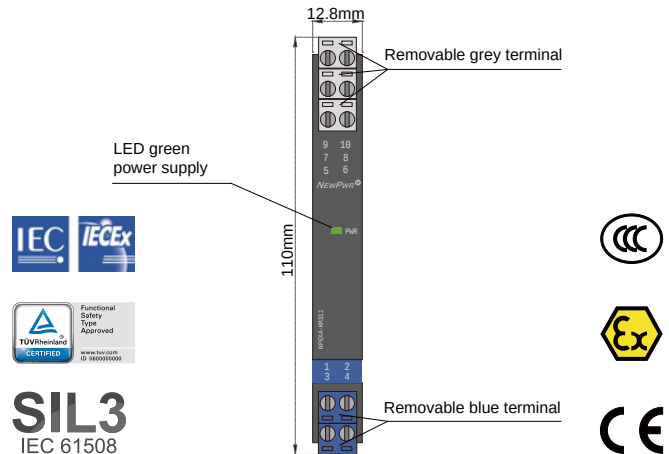
Output: 4 ~ 20 mA

Analog input isolated barrier, it detects loop current and converts it from a hazardous area into 4~20mA 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.

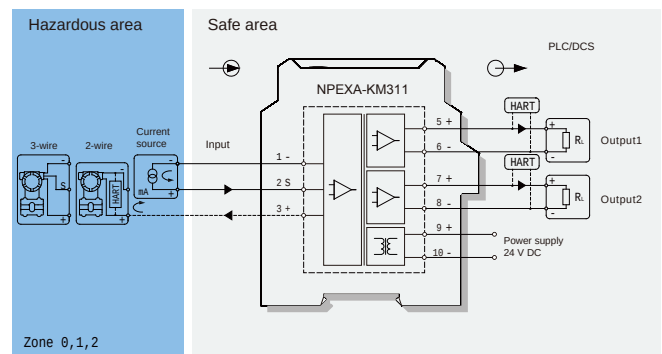


Parameters

Power supply:	20V DC ~ 30V DC (Reverse power protection)
Power dissipation:	1.5W (24V, single output) 2.0W (24V, double outputs)
Input signal:	4 ~ 20mA, HART
Input resistance:	approx. 75Ω
Available voltage:	voltage: ≥ 15.5V 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:	-40°C ~ +70°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



Wiring diagram



Explosive-proof parameters

Germany TÜV (TÜV Rheinland)

Safety Integrity Level (SIL): SIL3, SC3 according to IEC 61508

Ex marking: EU: 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):

$U_i=30V$, $I_i=85mA$

$U_o=5V$, I_o : negligible, P_o : negligible

$C_o=99.9\mu F$, $L_o=1H$

Certified parameters (Terminals 1/2, 3):

$U_o=27.3V$, $I_o=91.9mA$, $P_o=627.2mW$

IIC: $C_o=0.088\mu F$, $L_o=4.2mH$

IIIC(IIIB): $C_o=0.683\mu F$, $L_o=16.4mH$

IIA: $C_o=2.28\mu F$, $L_o=32.9mH$

I: $C_o=4\mu F$, $L_o=53.9mH$