

NPEXA-K5D11

Double inputs, double outputs

Input: dry contact or proximity switch
Output: relay

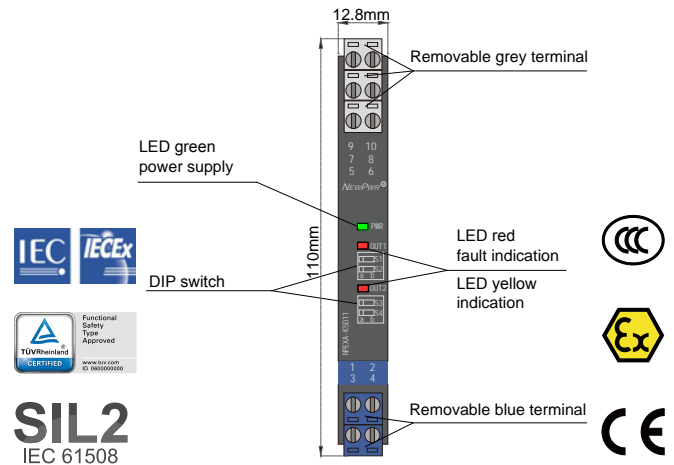
Digital input isolated barrier, it converts switch or proximity detector signals (dry contact or NAMUR) from a hazardous area into relay signals to a safe area by isolation. The normal output state and line fault detection function can be set with the DIP switch. The input, output, and power supply are galvanically isolated from each other.

Parameters

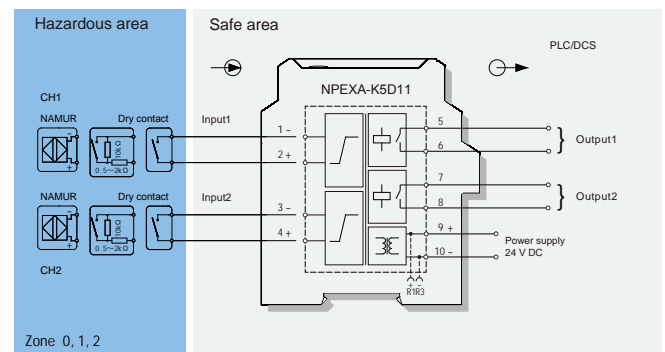
Power supply:	20V DC ~ 30V DC (Reverse power protection)
Power dissipation:	1W
Input signal:	Dry contact or NAMUR
Switching trigger point:	Input signal > 2.1mA, signal "1", the yellow LED is always bright Input signal < 1.2mA, signal "0", the yellow LED goes out
Open-circuit voltage:	Approx. 8.5V
Short-circuit current:	Approx. 8.5mA
output signal:	Relay contact
Load capacity:	250VAC/2A, 30VDC/2A
LFD function:	When input current $\leq 50\mu\text{A}$, considers the input line breakdown, the apparatus enters into safe function state, the output relay de-energized. If input current $\geq 6.5\text{mA}$, considers the input circuit short-circuit, the apparatus enters into safe function state, the output relay de-energized, the indicator red flashing
Relay mechanical life:	> 100000 switching cycles
Switch frequency:	< 10Hz
Energized/De-energized delay:	< 20ms
Electromagnetic compatibility:	IEC 61326-3-1
Dielectric strength:	$\geq 3000\text{V AC}$ (intrinsically safe side / non-intrinsically safe side) $\geq 1500\text{V AC}$ (Power supply/non-intrinsically safe side)
Insulation resistance:	$\geq 100\text{M}\Omega$ (Input /Output/Power supply)
Operation temperature:	$-40^\circ\text{C} \sim +70^\circ\text{C}$
Storage temperature:	$-40^\circ\text{C} \sim +80^\circ\text{C}$
Dimension:	12.8mm (W) \times 110mm (H) \times 117mm (D)
Safe state:	de-energized

DIP switch settings

Switch	State	a	b
S1		output1 normal mode	output1 inverted mode
S2		output1 LFD on	output1 LFD off
S3		Output2 normal mode	Output2 inverted mode
S4		output2 LFD on	output2 LFD off



Wiring diagram



Explosive-proof parameters

Germany TÜV(TÜV Rheinland)

Safety Integrity Level (SIL): SIL2, 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 nC [ia Ga] IIC T4 Gc

IECEX: [Ex ia Ma] I

[Ex ia Ga] IIC

[Ex ia Da] IIIC

Ex ec nC [ia Ga] IIC T4 Gc

Um: 250V

Certified parameters (Terminals 1, 2; 3, 4):

$U_0=10.5\text{V}$, $I_0=11.3\text{mA}$, $P_0=29.7\text{mW}$

IIC: $C_0=0.644\mu\text{F}$, $L_0=51.05\text{mH}$

IIIC(IIb): $C_0=7.839\mu\text{F}$, $L_0=468.7\text{mH}$

IIA: $C_0=36.939\mu\text{F}$, $L_0=1025\text{mH}$

I: $C_0=46.939\mu\text{F}$, $L_0=1739\text{mH}$