

# DI Isolated Barrier

## NPEXA-C512

Single input, single output

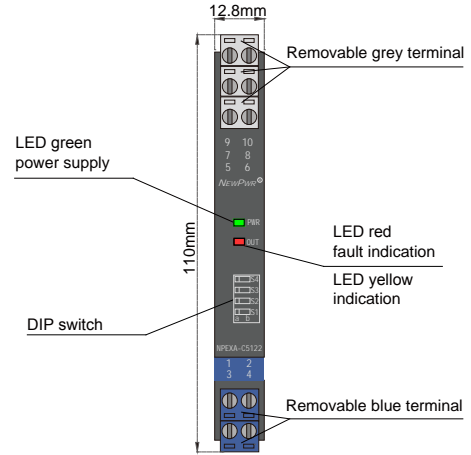
## NPEXA-C5122

Single input, double outputs

Input: dry contact or proximity switch

Output: transistor

Digital input isolated barrier, it converts switch or proximity detector signals (dry contact or NAMUR) from a hazardous area into transistor signals to a safe area by isolation. Operation mode, output 2 function and the input circuit fault detection function can be set with the DIP switch. The input, output, and power supply are galvanically isolated from each other.



### Parameters

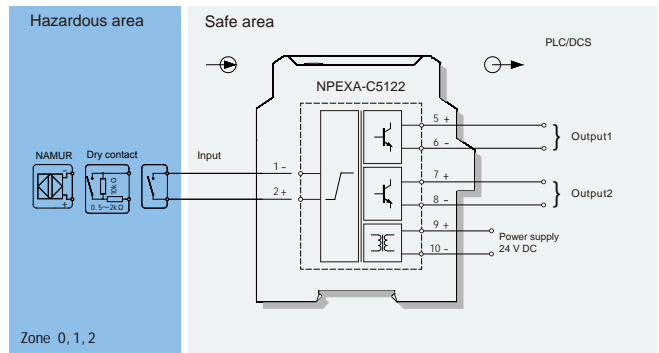
Power supply:	18V DC ~ 60V DC (Reverse power protection)
Power dissipation:	1W
Input signal:	Dry contact or NAMUR
Switching trigger point:	Input signal > 2.1mA, signal "1", the yellow LED is always bright Input signal < 1.2mA, signal "0", the yellow LED goes out
Open-circuit voltage:	Approx.8.5V
Short-circuit current:	Approx.8.5mA
Output signal:	Output signal Transistor
Sink current:	≤ 40mA
External voltage:	< 40V DC
LFD function:	When input current ≤ 50μA, considers the input line breakdown, the output transistor de-energized. If input current ≥ 6.5mA, considers the input circuit short-circuit, the output transistor de-energized, the indicator red flashing
Switching frequency:	< 5kHz
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

NPEXA-C512/NPEXA-C5122(NPEXA-C512 can set S1、S2)

Switch	State	a	b
S1		output1 normal mode	inverted mode
S2		LFD on	LFD off
S3		output2 normal mode	fault signal output

### Wiring diagram



### Explosive-proof parameters

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=10.5V, Io=11.3mA, Po=29.7mW

II C: Co=0.97μF, Lo=100mH

II B: Co=11μF, Lo=300mH

II A: Co=52μF, Lo=700mH