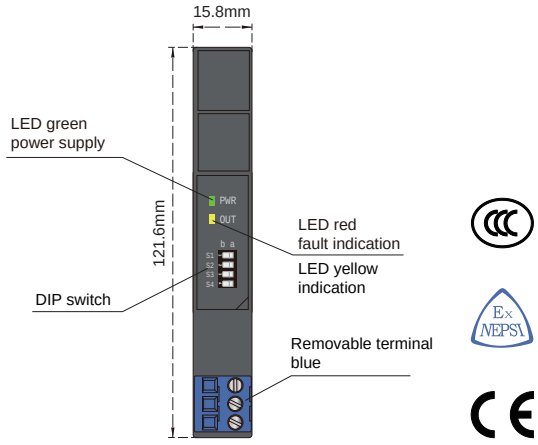
NPEXA-H5111 single input, double output

Input: dry contact or proximity switch
Output: relay

This isolated safety barrier converts switch or proximity detector signals (dry contact or NAMUR) from a hazardous area into relay signals to a safe area. Operation mode, the second output function (as a relay output or a fault output) and the input circuit fault detection function can be set with the DIP switch on the front side.The input, output, and power supply are galvanically isolated from each other.



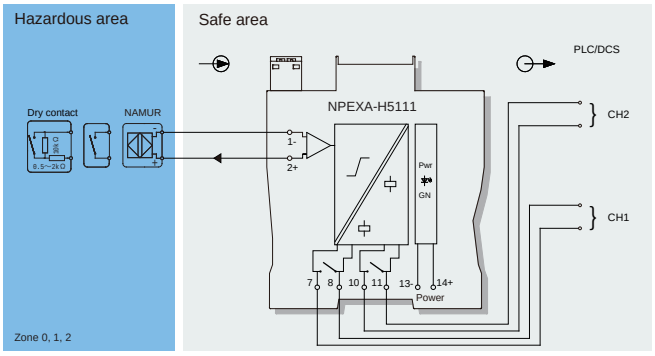
Technical data

Power supply:	18 V DC~32 V DC (Reverse power protection)
Power dissipation:	≤ 1.0W
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. 8.2V
Short-circuit current:	Approx. 8mA
output signal:	Relay contact
Load capacity:	0.5A/35V DC
LFD function:	When input current ≤ 50μA, considers the input line breakage, the output relay de-energized; If input current ≥ 6.5mA, considers the input circuit short-circuit, the output relay de-energized, the red LED flashing.
Relay mechanical life:	>100000 switching cycles
Switch frequency:	< 10Hz
Energized/De-energized delay:	< 20ms
Electromagnetic compatibility:	IEC 61326-3-1
Dielectric strength:	≥ 2500 V AC (intrinsically safe side / non-intrinsically safe side) ≥ 500 V AC (Power supply side /non-intrinsically safe side)
Insulation resistance:	≥ 100 MΩ (Input /Output/Power supply)
Operation temperature:	-20°C ~ +60°C
Storage temperature:	-40°C ~ +80°C
Dimension:	15.8 mm (W) × 121.6 mm (H) × 104.8 mm (D)

DIP switch settings

Switch State	a	b
S1	Output1 normal mode	Output1 inverted mode
S2	LFD on	LFD off
S3	Output2 normal mode	Output2 as fault signal output
S4	Output2 relay energized if fault	Output2 relay de-energized if fault

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: 250 V
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