

DO Isolated Safety Barrier

NPEXB-C512

Single input, single output

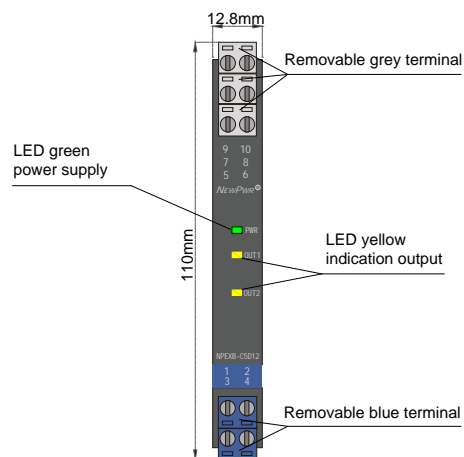
NPEXB-C5D12

double input, double output

Input: dry contact

Output: 45mA

By switch signal controlling, transfers the digital signals (dry contact) from safe area into current signals to hazardous area, and drives field device like intrinsically safe valves, audible alarms, etc. The input, output, and power supply are galvanically isolated from each other.

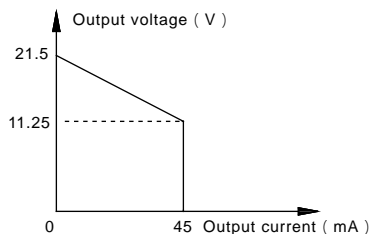
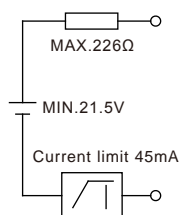


Parameters

Power supply:	18V DC ~ 60V DC (Reverse power protection)
Power dissipation:	≤ 1.4W (24V, single output) ≤ 2.8W (24V, double output)
Input signal:	dry contact
Output voltage:	> 11.25V DC
Open-circuit voltage:	21.5V DC
Output current:	≤ 45mA

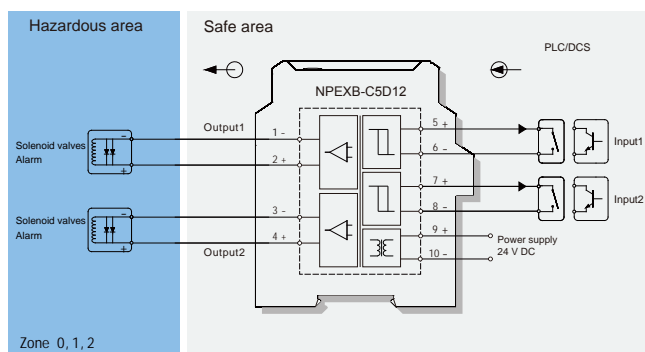
Output equivalent circuit

Output characteristics diagram



Response time:	< 20ms
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)

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: 250V

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

Uo=25.2V, Io=117mA, Po=738mW

II C: Co=0.107μF, Lo=1.5mH

II B: Co=0.82μF, Lo=4.5mH

II A: Co=2.9μF, Lo=12mH