

# DO Isolated Barrier

## NPEXB-C513

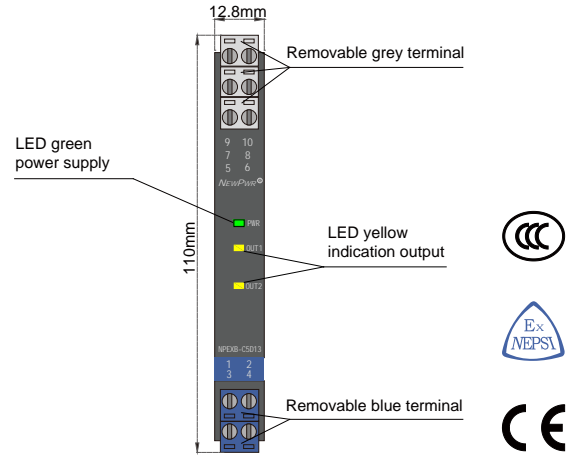
Single input, single output

## NPEXB-C5D13

Double inputs, double outputs

Input: dry contact  
Output: 60mA

Digital output isolated barrier. By switch signal controlling, transfers the dry contact signals from a safe area into current signals to a hazardous area, and drives field device like intrinsically safe valves, audible alarms, etc. It needs an independent power supply. The input, output, and power supply are galvanically isolated from each other.

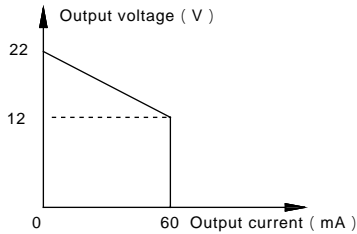
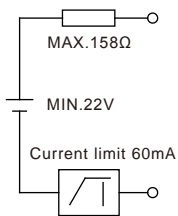


### Parameters

- Power supply: 20V DC ~ 60V DC (Reverse power protection)
- Power dissipation:  $\leq 1.8W$  (24V, single output)  
 $\leq 3.6W$  (24V, double outputs)
- Input signal: dry contact
- Output voltage:  $> 12V$  DC
- Open-circuit voltage: 22V DC
- Output current:  $\leq 60mA$

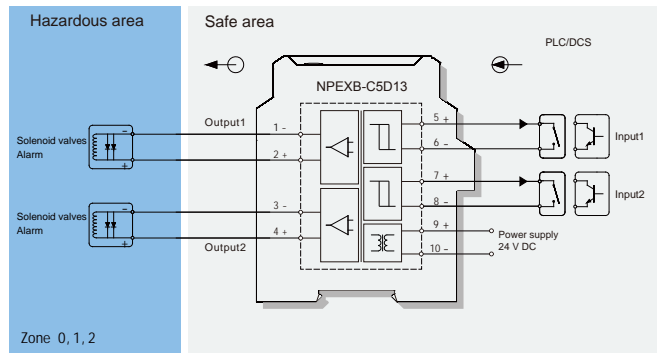
Output equivalent circuit

Output characteristics diagram



- Response time:  $< 20ms$
- Electromagnetic compatibility: IEC 61326-3-1
- Dielectric strength:  $\geq 3000V$  AC (intrinsically safe side / non-intrinsically safe side)  
 $\geq 1500V$  AC (Power supply/non-intrinsically safe side)
- Insulation resistance:  $\geq 100M\Omega$  (Input /Output/Power supply)
- Operation temperature:  $-20^{\circ}C \sim +60^{\circ}C$
- Storage temperature:  $-40^{\circ}C \sim +80^{\circ}C$
- Dimension: 12.8mm (W)  $\times$  110mm (H)  $\times$  117mm (D)

### Wiring diagram



### Explosive-proof parameters

National Supervision and Inspection Center for Explosion Protection and Safety of Instrumentation (NEPSI)

Ex marking: [Ex ia Ga] IIB

Um: 250V

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

Uo=25.2V, Io=170mA, Po=1080mW

IIB: Co=0.82 $\mu$ F, Lo=4mH

IIA: Co=2.9 $\mu$ F, Lo=10.6mH