

# Frequency Isolated Safety Barrier

## NPEXA-C67P2

Single input, single output

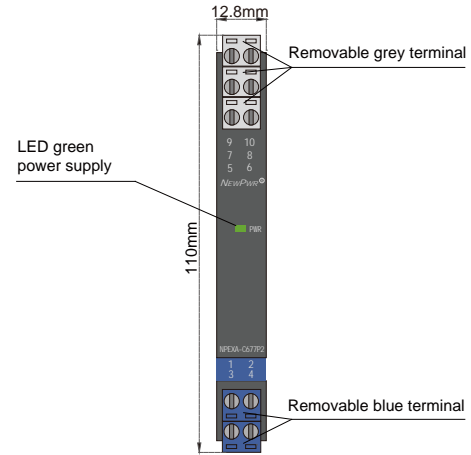
## NPEXA-C677P2

Single input, double output

Input: frequency

Output: 1:1

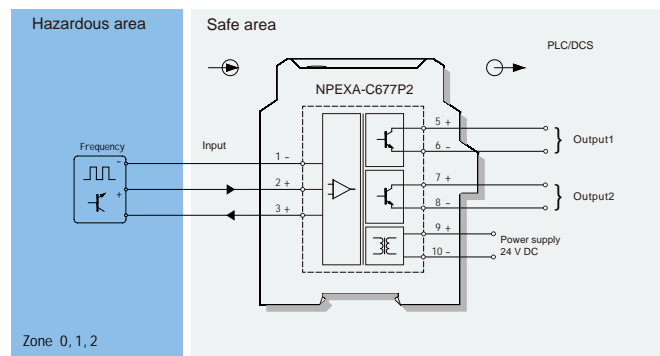
This isolated safety barrier converts the frequency signals from a hazardous area to a safe area by isolation. The input, output, and power supply are galvanically isolated from each other.



## Parameters

Power supply:	18V DC ~ 60V DC (Reverse power protection)
Power dissipation:	0.8W (single output)
Input signal:	1.3W (double output)
Frequency range:	frequency
Pulse width:	0.1Hz ~ 100kHz
Switching trigger point:	≥ 5μs
Distribution voltage:	Low level: 0V ~ 2V, High level: 4V ~ 30V ≥ 16V, when loaded with 20mA
Output signal:	Open collector High level: $V_{cc} (\leq 30V)$ Low level: ≤ 2V drive current: ≤ 10mA
	Emitter follower High level: $V_{cc}-2V$ Low level: ≤ 0.5V drive current: ≤ 10mA
	Logic level High level: $18V \leq V_H \leq 24V$ Low level: $V_L \leq 2V$ Load resistance: ≥ 2kΩ
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: 250 V

Certified parameters (Terminals 1, 2):

$U_o=8.7V$ ,  $I_o=1mA$ ,  $P_o=3mW$

II C:  $C_o=5\mu F$ ,  $L_o=1000mH$

II B:  $C_o=35\mu F$ ,  $L_o=1000mH$

II A:  $C_o=700\mu F$ ,  $L_o=1000mH$

Certified parameters (Terminals 1, 3):

$U_o=28V$ ,  $I_o=93mA$ ,  $P_o=651mW$

II C:  $C_o=0.08\mu F$ ,  $L_o=4.2mH$

II B:  $C_o=0.68\mu F$ ,  $L_o=12.6mH$

II A:  $C_o=2.27\mu F$ ,  $L_o=33.6mH$