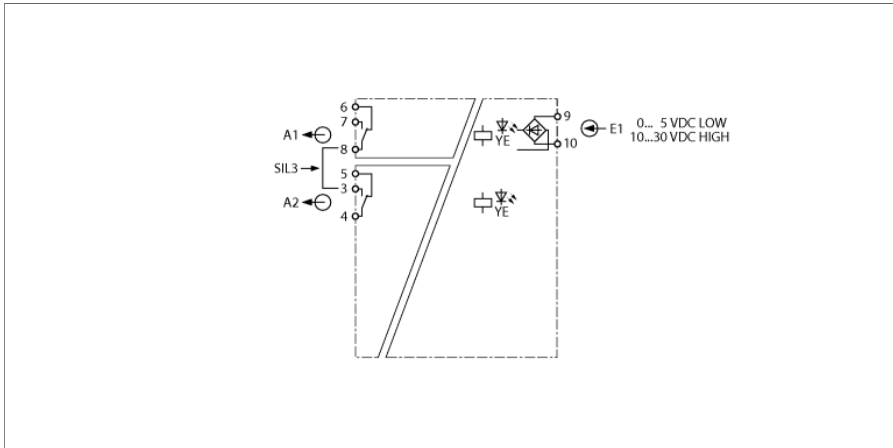


Coupling Relay

1-channel

IM12-CD01-2R-1U-0/L



The IM12-CD01-2R-1U-0/L one-channel relay coupler is designed for safe galvanic isolation between contact and control circuits. The device also enables the creation of safety-related applications up to and including SIL3 (high and low demand in accordance with IEC 61508).

The relay coupler is equipped with two synchronously controlled relay outputs (changeover contacts). The input signals are interpreted as low or high signals depending on the input level, and provided as a corresponding output signal. The inputs are not polarized. Input E1 controls output A1 and output A2 simultaneously. The device is powered through the input signal (loop-powered).

The switching status of the output is indicated by two yellow LEDs (Rel...).

If applied in SIL-3 circuits, the following conditions have to be observed:

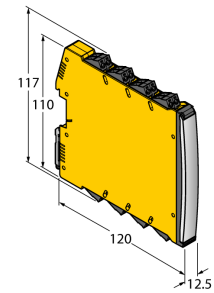
- If the output relay triggers a contactor directly: Equip the contactor with protective circuitry at the coil.
- Connect both relays in series.
- Equip the output relay with a fuse that is activated when 60% of the nominal current is achieved.

The device is equipped with removable screw terminals.

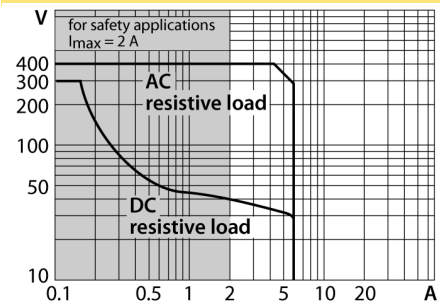
- The inputs are not polarized
- Input E1 activates both outputs simultaneously
- NE load connection: SIL 3 Safety Function for NE (Normally Energized) load (de-energized in safe state) is available
- ND load connection: SIL 3 Safety Function for ND (Normally De-Energized) load (energized in safe state) is available
- Complete galvanic isolation
- Input reverse-polarity protected
- Removable screw terminals
- ATEX use in Zone 2
- SIL 3



Dimensions



Output relay – Load curve



Type	IM12-CD01-2R-1U-0/L
ID	7580622
0-signal	0...5 VDC
1-signal	10...30 VDC
Voltage input	max. 30 VDC
Output circuits	
Output circuits (digital)	2 x relays (change-over)
Output switching voltage relay	$\leq 30\text{ VDC} / \leq 250\text{ VAC}$
Switching current per output	$\leq 2\text{ A}$
Switching capacity per output	$\leq 500\text{ VA}/60\text{ W}$
Switching frequency	$\leq 15\text{ Hz}$
Contact quality	AgNi, 0.3 μ Au
Galvanic isolation	
Test voltage	2.5 kV RMS
Important note	For Ex-applications the values specified in the corresponding Ex certificates (ATEX, IECEx, UL, etc.) apply.
Important note	If the device is used in applications to achieve functional safety according to IEC 61508, the safety manual must be used. Information in the data sheet are not valid for functional safety.
Use in SIL safety circuits	SIL 3 acc. to IEC 61508
Displays/Operating elements	
Switching state	Yellow

Mechanical data		
Protection class	IP20	
Flammability class acc. to UL 94	V-0	
Ambient temperature	-25...+70 °C	
Storage temperature	-40...+80 °C	
Dimensions	120 x 12.5 x 117 mm	
Weight	144 g	
Mounting instructions	DIN rail (NS35)	
Housing material	Polycarbonate/ABS	
Electrical connection	Removable screw terminals, 2-pin	
Terminal cross-section	0.2...2.5 mm² (AWG: 24...14)	
Tightening torque	0.5 Nm	
Tightening torque	4.43 LBS-Inch	
Environmental conditions	Operating height	Up to 2000 m above sea level
	Pollution degree	II
	Surge/Overvoltage category	II (EN 61010-1)
	Standards used	
	Voltage resistance and insulation	
		EN 50178
		EN 61010-1
		EN 50155
		GL VI-7-2
	Shock	
		EN 61373 class B
		EN 50155
		GL VI-7-2
		EN 60068-2-6
		EN 60068-2-27
	Temperature	
		EN 60068-2-1 Ad
		EN 50155
		GL VI-7-2
		EN 60068-2-2 Bd
		EN 60068-2-1
	Air humidity	
		EN 60068-2-38
	EMC	
		EN 50155
		GL VI-7-2
		NE21
		EN 61326-1
		EN 61326-3-1
		EN 61000-4-2
		EN 61000-4-3
		EN 61000-4-4
		EN 61000-4-5
		EN 61000-4-6
		EN 61000-4-11
		EN 61000-4-29
		EN 55011
		EN 55016
		EN 50121-3-2
		EN 61000-6-2

Accessories

Type code	Ident no.		Dimension drawing
IMX12-SC-2X-4BK	7580940	Screw terminals for IM(X)12 modules; included in delivery: 4 pcs. of 2-pin black terminals	
IMX12-CC-2X-4BK	7580942	Spring terminals for IM(X)12 modules; included in delivery: 4 pcs. black terminals, 2-pin	