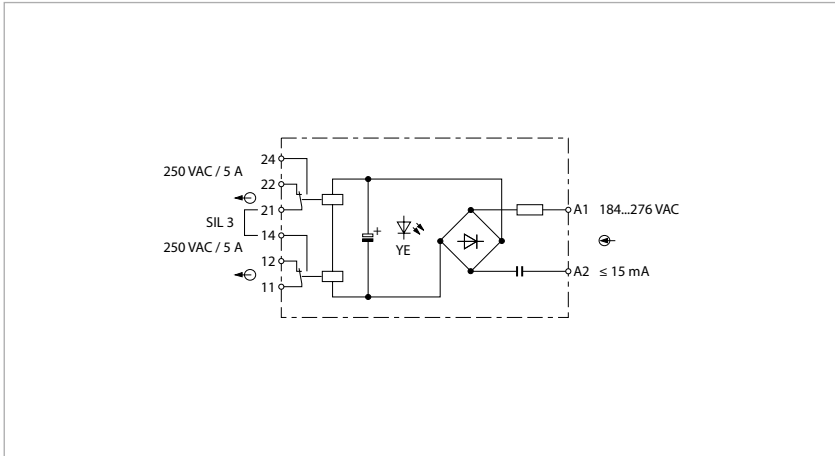


# Relay coupler, 1-channel



## Features

- TR CU
- Output circuit: 2 relays each with 1 changeover contact
- 5 A switching current at 250 VAC
- Operating voltage 184...276 VDC
- SIL3
- Galvanic isolation between input circuits and output circuits

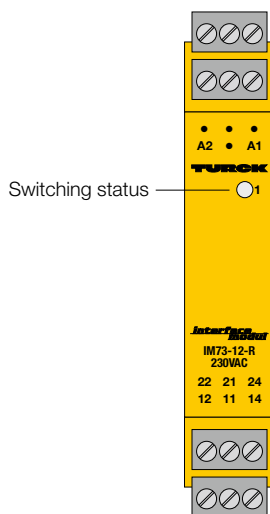
The IM73-12-R/230VAC 1-channel relay coupler is particularly suitable for use as a coupling module for the safe galvanic isolation of binary signals. 2 synchronous controlled relays, each with 1 changeover contact are provided at the output.

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

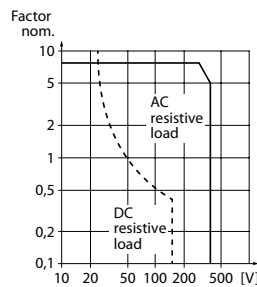
- If the output relay triggers a contactor directly, the contactor must be equipped with a protective circuitry at the coil connection.
- Both relays have to be connected in series.

- The contact circuit is equipped with a fuse and is activated at 60 % nominal current.

The status of the relay is indicated via LED on the front.



## Output relay – Load curve



# Technical data

<b>Type</b>	IM73-12-R/230VAC
Ident no.	7520511

## Power supply

Nominal voltage	230 VAC
Operating voltage range	184...276 VAC
Frequency	48...62 Hz
Power consumption	≤ 3.5 VA

## Inputs

Current input	15 mA
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## Outputs

Output circuits (digital)	2 x relay (change-over)
Switching frequency	≤ 5 Hz
Relay switching voltage	≤ 250 VAC
Switching current per output	≤ 5 A
Switching capacity per output	≤ 2000 VA/180 W
Contact quality	AgNi, 3μ Au

## Approvals and declarations

Declaration	SIL 3 acc. to EXIDA FMEDA
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## Indication

Switching state	yellow
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## Environmental Conditions

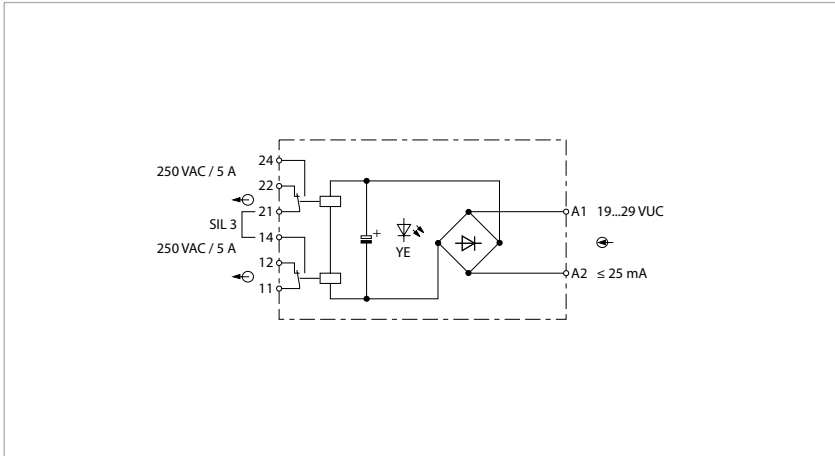
Ambient temperature	-25...+70 °C
Storage temperature	-40...+80 °C
Test voltage	2.5 kV
MTTF	947 years acc. to SN 29500 (Ed. 99) 40 °C

## Mechanical data

Tightening torque	0.5 Nm
Electrical connection	4 x 3-pin removable terminal blocks, reverse polarity protected, screw connection
Terminal cross-section	1 x 2.5 mm <sup>2</sup> / 2 x 1.5 mm <sup>2</sup>
Housing material	Polycarbonate/ABS
Mounting instruction	for DIN rail / panel
Protection class	IP20
Flammability class acc. to UL 94	V-0
Dimensions	18 x 104 x 110 mm

<b>Approval   Certification</b>	TR CU
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# Relay coupler, 1-channel



## Features

- TR CU
- Output circuit: 2 relays each with 1 changeover contact
- 5 A switching current at 250 VAC
- Operating voltage 19...29 VDC
- Removable terminal blocks
- SIL3
- Galvanic isolation between input circuits and output circuits

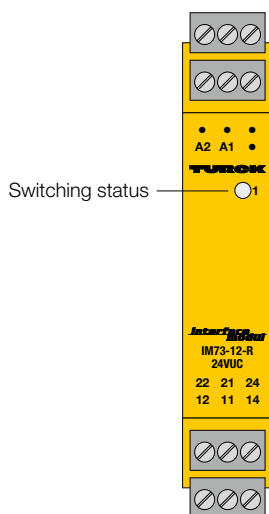
The IM73-12-R/24VUC 1-channel relay coupler is particularly suitable for use as a coupling module for the safe galvanic isolation of binary signals. 2 synchronous controlled relays, each with 1 changeover contact are provided at the output.

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

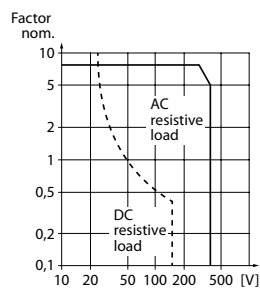
- If the output relay triggers a contactor directly, the contactor must be equipped with a protective circuitry at the coil connection.
- Both relays have to be connected in series.

- The contact circuit is equipped with a fuse and is activated at 60 % nominal current.

The status of the relay is indicated via LED on the front.



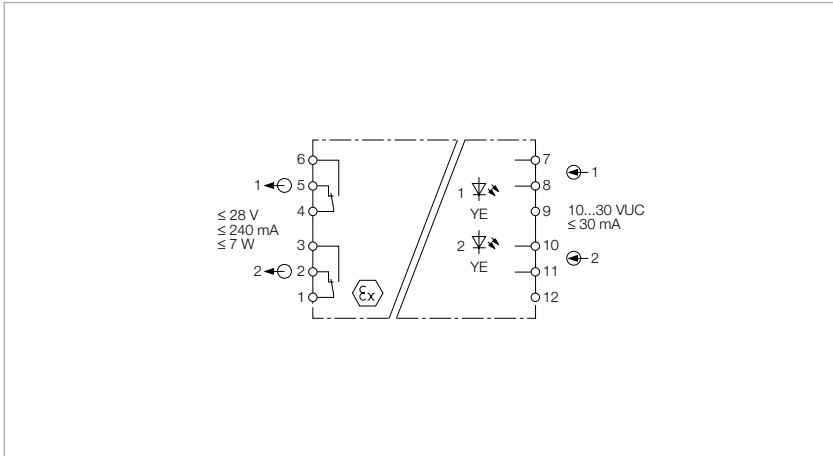
## Load curve



## Technical data

<b>Type</b>	IM73-12-R/24VUC
Ident no.	7520712
<b>Power supply</b>	
Nominal voltage	24 VUC
Operating voltage range	19...29 VDC
Operating voltage range	19...29 VAC
Frequency	48...62 Hz
Power consumption	≤ 0.6 VA
<b>Inputs</b>	
Voltage input	19...29 VAC/ VDC
Current input	25 mA
<b>Outputs</b>	
Output circuits (digital)	2 x relay (change-over)
Switching frequency	≤ 5 Hz
Relay switching voltage	≤ 250 VAC
Switching current per output	≤ 5 A
Switching capacity per output	≤ 2000 VA/180 W
Contact quality	AgNi, 3μ Au
<b>Approvals and declarations</b>	
Declaration	SIL 3 acc. to EXIDA FMEDA
<b>Indication</b>	
Switching state	yellow
<b>Environmental Conditions</b>	
Ambient temperature	-25...+70 °C
Storage temperature	-40...+80 °C
Test voltage	2.5 kV
MTTF	963 years acc. to SN 29500 (Ed. 99) 40 °C
<b>Mechanical data</b>	
Tightening torque	0.5 Nm
Electrical connection	4 x 3-pin removable terminal blocks, reverse polarity protected, screw connection
Terminal cross-section	1 x 2.5 mm <sup>2</sup> / 2 x 1.5 mm <sup>2</sup>
Housing material	Polycarbonate/ABS
Mounting instruction	for DIN rail / panel
Protection class	IP20
Flammability class acc. to UL 94	V-0
Dimensions	18 x 104 x 110 mm
<b>Approval   Certification</b>	TR CU

## Relay coupler, 2-channel



### Features

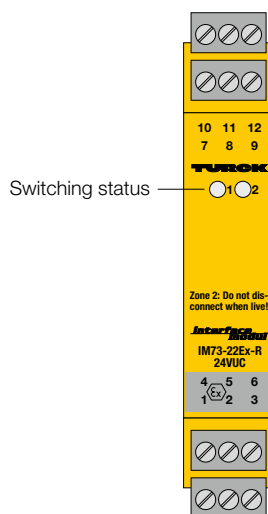
- ATEX, TR CU
- Installation in zone 2
- Relay coupler for switching of intrinsically safe and current limited circuits
- High-quality reed relays with rhodium contacts
- Switching frequency up to 50 Hz
- Galvanic isolation between input and output circuits

The 2-channel relay coupler IM73-22Ex-R/24VUC is used for the switching of intrinsically safe circuits and for galvanically isolating contact and control circuitry according to EN 60079-11.

LEDs on the front indicate the switching status.

With 50 Hz the switching frequency of the reed relay is significantly higher than that of standard relays.

The reed relay with Rhodium contacts are also suitable for general control tasks, especially if normal relays reach their limits in terms of switching frequency and the permissible contact data.



## Technical data

<b>Type</b>	IM73-22Ex-R/24VUC
Ident no.	7520513

### Power supply

Nominal voltage	24 VUC
Operating voltage range	10...30 VDC
Operating voltage range	10...30 VAC
Frequency	48...62 Hz

### Inputs

Voltage input	10...30 VAC/VDC
Current input	30 mA

### Outputs

Output circuits (digital)	2 x relay (change-over)
Relay switching voltage	≤ 28 VDC
Switching current per output	≤ 240 mA
Switching capacity per output	≤ 7 W
Contact quality	AgNi, 3μ Au

### Response characteristic

Limit frequency	≤ 50 Hz
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### Approvals and declarations

Ex approval acc. to conformity certificate	BVS 03 ATEX E 335
Device designation	Ⓔ II (1) G, II (1) D [Ex ia Ga] IIC; [Ex ia Da] IIIC
Rated voltage	250 V
Max. values:	Terminal connection: 1...3 / 4...6
Max. input voltage $U_i$	≤ 28 V
Max. input current $I_i$	≤ 240 mA
Max. input power $P_i$	≤ 7000 mW
Internal inductance/capacitance $L_i/C_i$	negligibly small
Ex approval acc. to conformity certificate	Turck Ex-06007M X
Application area	II 3 G
Protection type	Ex nA nC [ic Gc] IIC T4 Gc
Max. values:	Terminal connection: 1...3 / 4...6
Max. input voltage $U_i$	≤ 28 V
Max. input current $I_i$	≤ 240 mA
Max. input power $P_i$	≤ 7000 mW
Internal inductance/capacitance $L_i/C_i$	negligibly small

### Indication

Switching state	yellow
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### Environmental Conditions

Ambient temperature	-25...+70 °C
Storage temperature	-40...+80 °C
Test voltage	1.5 kV

### Mechanical data

Tightening torque	0.5 Nm
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Electrical connection	4 x 3-pin removable terminal blocks, reverse polarity protected, screw connection
Terminal cross-section	1 x 2.5 mm <sup>2</sup> / 2 x 1.5 mm <sup>2</sup>
Housing material	Polycarbonate/ABS
Mounting instruction	for DIN rail / panel
Protection class	IP20
Flammability class acc. to UL 94	V-0
Dimensions	18 x 104 x 110 mm

<b>Approval   Certification</b>	ATEX, TR CU
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