

Relay Module



Identification	Type	RE 6-2002 / FK DC 24V
	Part-No.	762002
Product version		
Datasheet version		01
Use/Application/Properties		
Description	This universal-relay-coupler component is designed for the output-coupler level. The activation occurs via DC 24 V. There are two 250 V / 6 A change over contacts available on the load side for the switching of small to medium loads.	
Input		
Rated voltage U_N	DC 24 V	
Voltage range	DC 16.8 V – 30 V	
Rated current (at U_N)	approx. 35 mA	
Status indication LED	Yellow LED	
Interrupting voltage	>2.4 V	
Output		
Switching voltage	AC/DC 1 V – 250 V	
Switching current	AC/DC 0.001 A – 6 A	
Switching capacity	max. 1500 VA / 100 W (see Fig.1)	
Protection device output	none	
Inrush peak current	15 A (max. 2 s at 5 % ED)	
Contact material	AgNi + 0.15 μ m HV	
Capacity of hard-gold-plating	24 V / 10 mA	
General		
Connection type	Spring terminal: single stranded 0.08 – 2.5 mm ² , fine stranded 0.08 – 2.5 mm ² fine stranded with ferrule 0.25 – 1.5 mm ² Stripping length: 6 – 7 mm Screwdriver: 3.5 x 0.5 mm	
Clearance/creepage dist. (control/load side)	(A1, A2 -> 11/12/14 21/22/24) > 7 mm (protective separation)	

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Rated insulation voltage	AC/DC 300 V between control- and load side between open contacts (functional insulation) AC/DC 500 V between neighbouring contacts (functional insulation)
Degree of pollution	PD2
Over voltage category	OV2
Contact type	2 change over contact
Critical frequency	20 Hz
Mechanical service life	> 30 × 10 ⁶ operations
Housing material	PC-ABS
Color of the housing	grey RAL 7035
Operation temperature range	-40 °C ... +70 °C (+85 °C 10 min)
Storage temperature range	-40 °C ... +85 °C
Dimensions (w × h × d)	17.5 × 80.0 × 84.0 mm
Weight	0.07 kg/piece
Form	Microcompact
Mounting	DIN rail mountable TS35 (EN 60715)
Protection class	IP20

Standards

EN 50155:2007: Railway applications – Rolling stock – Electronic equipment
EN 50121-3-2:2016: Railway applications – Electromagnetic compatibility – Part 3-2: Rolling stock – Apparatus
EN 50124-1:2017: Railway applications – Insulation coordination – Part 1: Basic requirements – Clearances and creepage distances for all electrical and electronic equipment
EN 61373:2010: Railway applications – Rolling stock equipment – Shock and vibration tests
EN 45545-2: Railway applications – Fire protection on railway vehicles – Part 2: Requirements for fire behaviour of materials and components
HN_Isolationsprüfung:2018: Company internal standard – Insulation test

Failure Rate Prediction (MTBF)

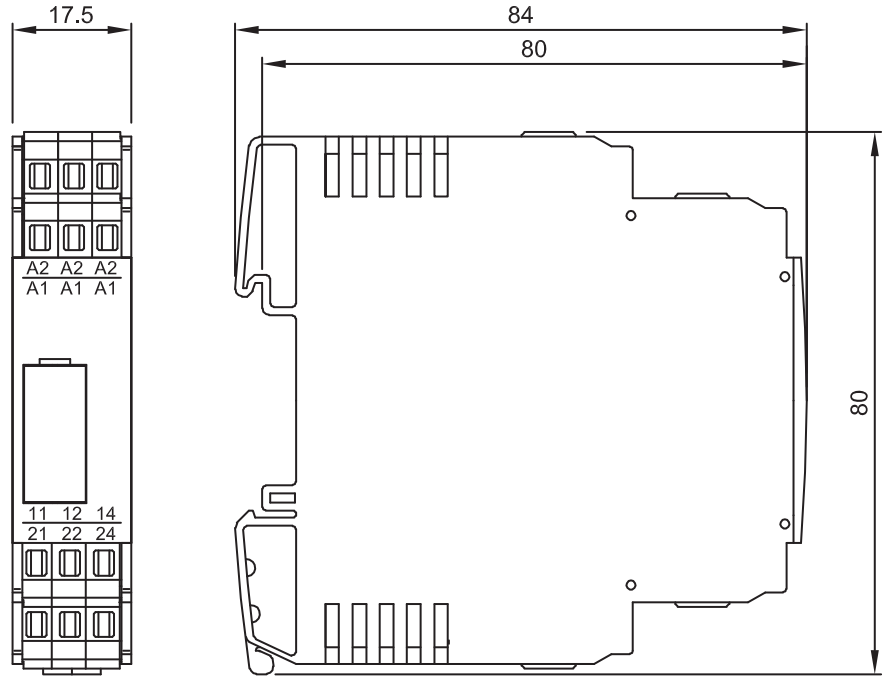
Standards	Electronic components – Reliability – Reference conditions for failure rates and stress models for conversion: EN/IEC 61709 Failure Rates of Components – Expected values: SN 29500
Failure rate at +45 °C	246 fit
Failure rate at +45 °C	4059018 h 1 fit equals one failure per 10 ⁹ component hours The indicated temperature is the mean component ambient temperature.
Comments	The results are valid under following conditions: Automotive environment or industrial areas without extreme dust levels and harmful substances Continuous operation 8760 h per year

Miscellaneous

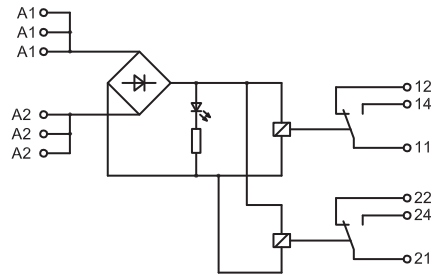
Comments	Inductive loads must be wired with a suitable suppressor element! When the module has been used once over the power limit of the hard gold plating it can no longer be used in the switching range below the power limit.
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Dimensions



Circuit diagram



Load limit curve

