SIEMENS

Data sheet

3RQ1000-1GB00



Positively driven coupling relay in industrial enclosure 2 NO contacts / 1 NC contact 24 V DC SIL 2 / PL c screw terminal

product brand name	SIRIUS			
product designation	force-guided coupling relay			
design of the product	fail-safe up to SIL 2/PL c			
product type designation	3RQ1			
General technical data				
consumed active power	0.9 W			
insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3 rated value	300 V			
degree of pollution	3			
surge voltage resistance rated value	4 kV			
protection class IP	IP20			
shock resistance				
 according to IEC 60068-2-27 	11g / 15 ms			
vibration resistance				
 according to IEC 60068-2-6 	10 55 Hz: 0.35 mm			
operating frequency maximum	360 1/h			
switching behavior	monostable			
mechanical service life (operating cycles) typical	10 000 000			
thermal current of the switching element with contacts maximum	5 A			
reference code according to IEC 81346-2	К			
Substance Prohibitance (Date)	05/31/2018			
Product Function				
suitability for operation device connector 3ZY12	Yes			
Control circuit/ Control				
control supply voltage 1				
 at DC rated value 	24 V			
• at DC	24 24 V			
operating range factor control supply voltage rated value at DC				
• initial value	0.8			
• full-scale value	1.2			
ON-delay time				
• at AC maximum	15 ms			
• at DC maximum	15 ms			
OFF-delay time	35 ms			
design of the relay operating mechanism	poled			
product component plug-in socket	No			
Short-circuit protection				
design of the fuse link for short-circuit protection of the auxiliary switch required	NO: fuse gL/gG: 6 A; NC: fuse gL/gG: 4 A			

Auxiliary circuit	
material of switching contacts	AqNi + Au flash
number of NC contacts for auxiliary contacts	1
number of NO contacts for auxiliary contacts	2
number of CO contacts for auxiliary contacts	0
	DC
type of voltage	
ampacity of the output relay at AC-15 • at 250 V at 50/60 Hz	2 A
	2 A
ampacity of the output relay at DC-13 • at 24 V	2 A
• at 24 V • at 125 V	2 A 0.2 A
at 250 V Electromagnetic compatibility	0.1 A
Electromagnetic compatibility	
EMC emitted interference according to IEC 60947-1	ambience A (industrial sector)
EMC immunity according to IEC 60947-1	corresponds to degree of severity 3
conducted interference	214/
due to burst according to IEC 61000-4-4	2 kV
due to conductor-earth surge according to IEC 61000-4-5	2 kV (line to ground)
 due to conductor-conductor surge according to IEC 61000-4-5 	1 kV (line to line)
field-based interference according to IEC 61000-4-3	10 V/m
electrostatic discharge according to IEC 61000-4-2	4 kV contact discharging, 8 kV air discharging
Safety related data	
Safety Integrity Level (SIL) according to IEC 61508	2
SIL Claim Limit (subsystem) according to EN 62061	2
performance level (PL) according to EN ISO 13849-1	c
PFHD	
with high demand rate according to IEC 61508	6E-7 1/h
with high demand rate according to IEC 01000 with low demand rate according to IEC 61508	0.004 1/h
hardware fault tolerance according to IEC 61508	0
electromagnetic compatibility	IEC 60947-1 / IEC 61000-6-2 / IEC 61000-6-4
Connections/ Terminals	
	Yes
Connections/ Terminals product component removable terminal for auxiliary and	
Connections/ Terminals product component removable terminal for auxiliary and control circuit	Yes
Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection	Yes screw-type terminals
Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection wire length at DC maximum	Yes screw-type terminals
Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection wire length at DC maximum type of connectable conductor cross-sections	Yes screw-type terminals 2 000 m
Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection wire length at DC maximum type of connectable conductor cross-sections • solid	Yes screw-type terminals 2 000 m 1x (0.5 4.0 mm ²), 2x (0.5 2.5 mm ²)
Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection wire length at DC maximum type of connectable conductor cross-sections • solid • finely stranded with core end processing	Yes screw-type terminals 2 000 m 1x (0.5 4.0 mm ²), 2x (0.5 2.5 mm ²) 1x (0.5 4 mm ²), 2x (0.5 1.5 mm ²)
Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection wire length at DC maximum type of connectable conductor cross-sections • solid • finely stranded with core end processing • at AWG cables solid	Yes screw-type terminals 2 000 m 1x (0.5 4.0 mm ²), 2x (0.5 2.5 mm ²) 1x (0.5 4 mm ²), 2x (0.5 1.5 mm ²)
Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection wire length at DC maximum type of connectable conductor cross-sections • solid • finely stranded with core end processing • at AWG cables solid connectable conductor cross-section	Yes screw-type terminals 2 000 m 1x (0.5 4.0 mm ²), 2x (0.5 2.5 mm ²) 1x (0.5 4 mm ²), 2x (0.5 1.5 mm ²) 1x (20 12), 2x (20 14)
Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection wire length at DC maximum type of connectable conductor cross-sections • solid • finely stranded with core end processing • at AWG cables solid connectable conductor cross-section • solid	Yes screw-type terminals 2 000 m 1x (0.5 4.0 mm ²), 2x (0.5 2.5 mm ²) 1x (0.5 4 mm ²), 2x (0.5 1.5 mm ²) 1x (20 12), 2x (20 14) 0.5 4 mm ²
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Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection wire length at DC maximum type of connectable conductor cross-sections • solid • finely stranded with core end processing • at AWG cables solid connectable conductor cross-section • solid • finely stranded with core end processing • finely stranded with core end processing • finely stranded with core end processing • finely stranded without core end processing • finely stranded without core end processing • solid • stranded • solid • stranded tightening torque with screw-type terminals stripped length of the cable for auxiliary and control contacts Installation/ mounting/ dimensions mounting position fastening method height width	Yes screw-type terminals 2 000 m 1x (0.5 4.0 mm ²), 2x (0.5 2.5 mm ²) 1x (0.5 4 mm ²), 2x (0.5 1.5 mm ²) 1x (20 12), 2x (20 14) 0.5 4 mm ² 4 mm ² 0.5 mm ² 12 20 12 20 0.6 0.8 N·m 10 mm any screw and snap-on mounting onto 35 mm DIN rail
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during transport			+80 °C		
relative humidity during		10 .	95 %		
Certificates/ approvals					
General Product App	oroval				
() Se		<u>Confirmation</u>			EHC
EMC	Declaration of Confor	mity	Marine / Shipping	other	
RCM	UK CA	CE EG-Konf.		Confirmation	

Further information

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

Information- and Downloadcenter (Catalogs, Brochures,...)

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RQ1000-1GB00

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RQ1000-1GB00

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

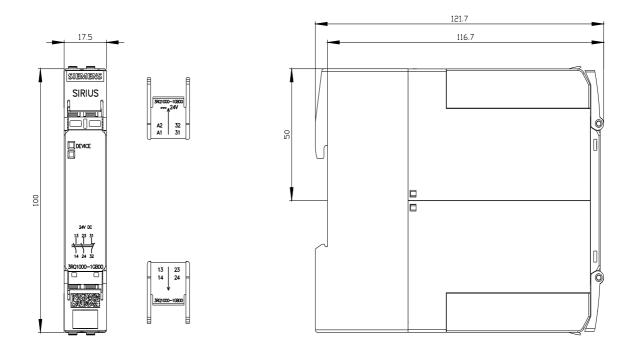
https://support.industry.siemens.com/cs/ww/en/ps/3RQ1000-1GB00

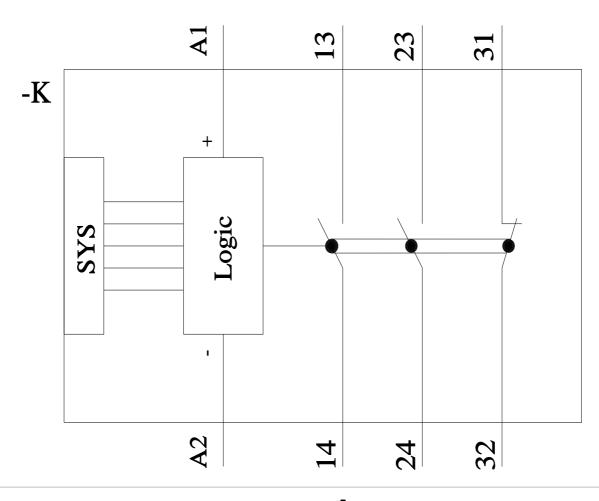
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RQ1000-1GB00&lang=en

Characteristic: Derating

https://support.industry.siemens.com/cs/ww/en/ps/3RQ1000-1GB00/manual





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