## **SIEMENS**

Data sheet 3RQ1000-1EB00



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

	OLDILLO
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	0.6 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	K
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	40 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	1
number of CO contacts for auxiliary contacts	0
type of voltage	DC
ampacity of the output relay at AC-15	
• at 250 V at 50/60 Hz	2 A
ampacity of the output relay at DC-13	
• at 24 V	2 A
• at 125 V	0.2 A
• at 250 V	0.1 A
Electromagnetic compatibility	ULIA
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	Corresponds to degree or severity 5
due to burst according to IEC 61000-4-4	2 kV
due to burst according to IEC 01000-4-4     due to conductor-earth surge according to IEC 61000-4-5	
due to conductor-earth surge according to IEC     due to conductor-conductor surge according to IEC	2 kV (line to ground) 1 kV (line to line)
61000-4-5	i kv (iii.c to iii.c)
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	С
PFHD	
<ul> <li>with high demand rate according to IEC 61508</li> </ul>	4E-7 1/h
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	
product component removable terminal for auxiliary and	Yes
product component removable terminal for auxiliary and control circuit	
product component removable terminal for auxiliary and control circuit type of electrical connection	screw-type terminals
product component removable terminal for auxiliary and control circuit type of electrical connection wire length at DC maximum	
product component removable terminal for auxiliary and control circuit type of electrical connection wire length at DC maximum type of connectable conductor cross-sections	screw-type terminals 2 000 m
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	screw-type terminals 2 000 m 1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²)
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	screw-type terminals 2 000 m 1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²) 1x (0.5 4 mm²), 2x (0.5 1.5 mm²)
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  • for AWG cables solid	screw-type terminals 2 000 m 1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²)
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  • for AWG cables solid  connectable conductor cross-section	screw-type terminals 2 000 m  1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²) 1x (0.5 4 mm²), 2x (0.5 1.5 mm²) 1x (20 12), 2x (20 14)
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  • for AWG cables solid  connectable conductor cross-section  • solid	screw-type terminals 2 000 m  1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²) 1x (0.5 4 mm²), 2x (0.5 1.5 mm²) 1x (20 12), 2x (20 14)  0.5 4 mm²
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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  • for AWG cables solid  connectable conductor cross-section  • solid  • finely stranded with core end processing  • finely stranded without core end processing  AWG number as coded connectable conductor cross section  • 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	screw-type terminals 2 000 m  1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²) 1x (0.5 4 mm²), 2x (0.5 1.5 mm²) 1x (20 12), 2x (20 14)  0.5 4 mm² 4 mm² 0.5 mm²  12 20 12 20 0.6 0.8 N·m 10 mm  any screw and snap-on mounting onto 35 mm DIN rail 100 mm
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• during transport -40 ... +80 °C relative humidity during operation 10 ... 95 %

Certificates/ approvals

## **General Product Approval**





Confirmation







**EMC** 

**Declaration of Conformity** 

Marine / Shipping

other









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=3RQ1000-1EB00

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RQ1000-1EB00

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

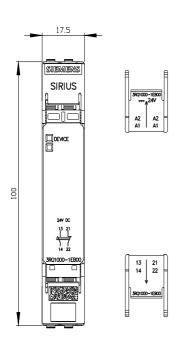
https://support.industry.siemens.com/cs/ww/en/ps/3RQ1000-1EB00

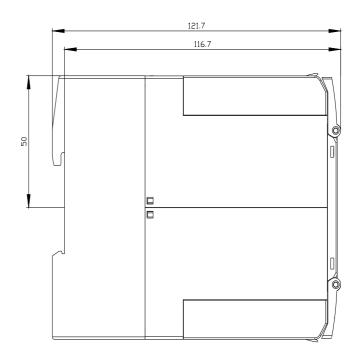
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

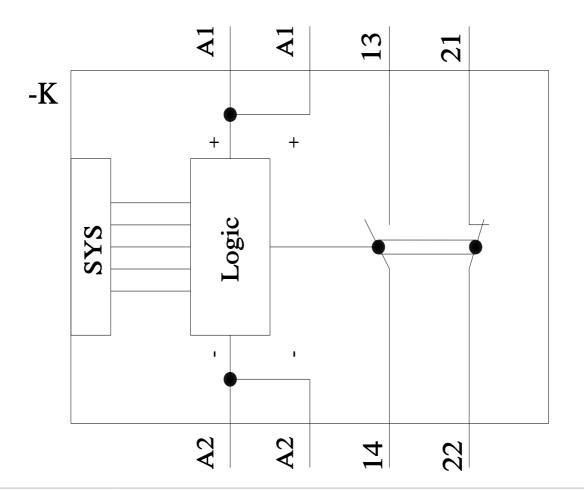
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RQ1000-1EB00&lang=en

**Characteristic: Derating** 

https://support.industry.siemens.com/cs/ww/en/ps/3RQ1000-1EB00/manual







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