## SIEMENS

## Data sheet

## 3RQ1000-1HB00



Positively driven coupling relay in industrial enclosure 2 NO contacts / 2 NC contacts 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	1.3 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				
<ul> <li>at DC rated value</li> </ul>	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	fuse gL/gG: 6 A			

Auxiliary circuit			
material of switching contacts	AgSnO2 + Au flash		
number of NC contacts for auxiliary contacts	2		
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	1.5 A		
	1.0 A		
ampacity of the output relay at DC-13 • at 24 V	1A		
• at 24 V • at 125 V			
	0.2 A		
• at 250 V	0.1 A		
Electromagnetic compatibility	ambience A (inductrial exeter)		
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	2 14/		
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)		
<ul> <li>due to conductor-conductor surge according to IEC 61000-4-5</li> </ul>	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		
Sile Claim Limit (subsystem) according to EN 62061	2		
performance level (PL) according to EN ISO 13849-1	2 C		
PFHD			
with high demand rate according to IEC 61508	6E-7 1/h		
with high demand rate according to IEC 61508     with low demand rate according to IEC 61508	0.004 1/h		
hardware fault tolerance according to IEC 61508	0.004 1/1		
electromagnetic compatibility			
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		
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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	Yes 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)		
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 mm²), 2x (0.5 2.5 mm²) 1x (0.5 4 mm²), 2x (0.5 1.5 mm²)		
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 <sup>2</sup> ), 2x (0.5 2.5 mm <sup>2</sup> ) 1x (0.5 4 mm <sup>2</sup> ), 2x (0.5 1.5 mm <sup>2</sup> ) 1x (20 12), 2x (20 14)		
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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         • solid         • 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         depth         Ambient conditions         installation altitu	Yes         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         0.5 4 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         22.5 mm         120 mm		
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during transport relative humidity during			+80 °C 95 %		
Certificates/ approvals					
General Product App	roval				
		<u>Confirmation</u>	TÜV		EHC
EMC	Declaration of Confo	mity	Marine / Shipping	other	
RCM	UK CA	C E EG-Konf.		<u>Confirmation</u>	

## 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=3RQ1000-1HB00

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RQ1000-1HB00

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

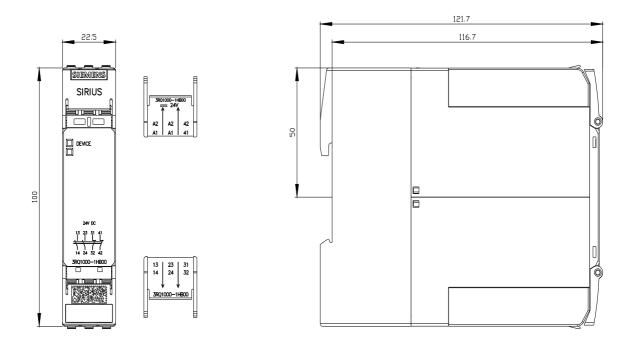
https://support.industry.siemens.com/cs/ww/en/ps/3RQ1000-1HB00

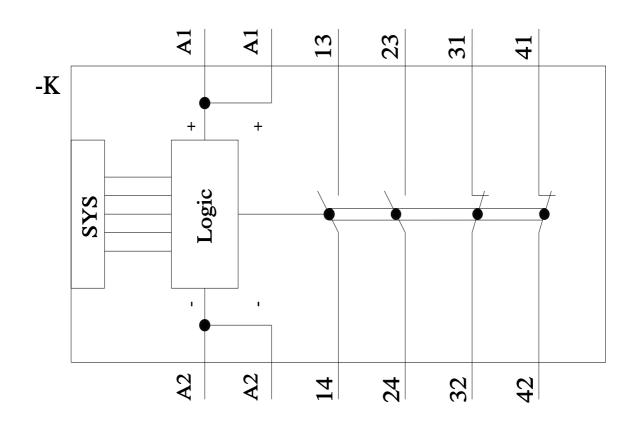
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RQ1000-1HB00&lang=en

Characteristic: Derating

https://support.industry.siemens.com/cs/ww/en/ps/3RQ1000-1HB00/manual





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