SIEMENS

Data sheet 3RQ2000-1BW00



Coupling relay in industrial enclosure 2 changeover contacts Wide voltage range 24 V to 240 V AC/DC Screw terminals

product brand name	SIRIUS
product designation	Coupling relay in industrial enclosure
product type designation	3RQ2
General technical data	
product feature protective coating on printed-circuit board	No
consumed active power	2 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
maximum permissible voltage for protective separation	
● between auxiliary and auxiliary circuit	300 V
● between control and auxiliary circuit according to IEC 60947-1	300 V
shock resistance	
● **according to IEC 60068-2-27**	11 g / 15 ms
● for railway applications according to EN 61373	Category 1, Class B
vibration resistance	
● **according to IEC 60068-2-6**	10 ... 55 Hz: 0.35 mm
● for railway applications according to EN 61373	Category 1, Class B
switching behavior	monostable
mechanical service life (operating cycles) typical	10 000 000
electrical endurance (operating cycles) at AC-15 at 230 V typical	100 000
thermal current of the switching element with contacts maximum	5 A
reference code according to IEC 81346-2	K
Substance Prohibitance (day/month/year)	05/31/2018
SVHC substance name	2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one CAS-No. 71868-10-5 Melamine CAS-No. 108-78-1
Net Weight	0.141 kg
Control circuit/ Control	
control supply voltage at AC	
● at 50 Hz rated value	24 ... 240 V
● at 50 Hz	24 ... 240 V
● at 60 Hz rated value	24 ... 240 V
● at 60 Hz	24 ... 240 V
control supply voltage at DC rated value	24 ... 240 V
control supply voltage at DC	24 ... 240 V
operating range factor control supply voltage rated value at DC	

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● initial value	0.7
● full-scale value	1.1
operating range factor control supply voltage rated value at AC at 50 Hz	
● initial value	0.7
● full-scale value	1.1
operating range factor control supply voltage rated value at AC at 60 Hz	
● initial value	0.7
● full-scale value	1.1
ON-delay time	
● at AC maximum	10 ms
● at DC maximum	10 ms
OFF-delay time maximum	100 ms
Switching Function	
design of the switching function	CO contact
Mechanical data	
product component plug-in socket	No
design of the relay operating mechanism	poled
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
number of NC contacts for auxiliary contacts	0
number of NO contacts for auxiliary contacts	0
number of CO contacts for auxiliary contacts	2
contact reliability of auxiliary contacts	one incorrect switching operation of 100 million switching operations (17 V, 5 mA)
type of voltage	AC/DC
ampacity of the output relay at AC-15	
● at 24 V at 50/60 Hz	3 A
● at 110 V at 50/60 Hz	3 A
● at 250 V at 50/60 Hz	3 A
ampacity of the output relay at DC-13	
● at 24 V	1 A
● at 125 V	0.2 A
● at 250 V	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	
● 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
Display	
product component LED	Yes
Connections/ Terminals	
product component removable terminal for auxiliary and control circuit	Yes
type of electrical connection	screw terminal
type of connectable conductor cross-sections	
● solid	1x (0.5 ... 4 mm²), 2x (0.5 ... 2.5 mm²)
● finely stranded with core end processing	1x (0.5 ... 4 mm²), 2x (0.5 ... 1.5 mm²)
● for AWG cables solid	1x (20 ... 12), 2x (20 ... 14)
connectable conductor cross-section	
● solid	0.5 ... 4 mm²

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● finely stranded with core end processing maximum	4 mm²
● finely stranded without core end processing minimum	0.5 mm²
AWG number as coded connectable conductor cross section	
● solid	12 ... 20
● stranded	12 ... 20
tightening torque with screw-type terminals	0.6 ... 0.8 N·m
stripped length of the cable for auxiliary and control contacts	10 mm

Installation/ mounting/ dimensions

mounting position	any
fastening method	screw and snap-on mounting onto 35 mm DIN rail
height	100 mm
width	22.5 mm
depth	90 mm

Ambient conditions

installation altitude at height above sea level maximum	2 000 m
ambient temperature	
● during operation	-40 ... +60 °C
● during storage	-40 ... +80 °C
● during transport	-40 ... +80 °C
relative humidity during operation	10 ... 95 %

Approvals Certificates

Environment

Environmental Confirmations

General Product Approval










EMV




Test Certificates

Type Test Certificates/Test Report

Maritime application







other

Confirmation



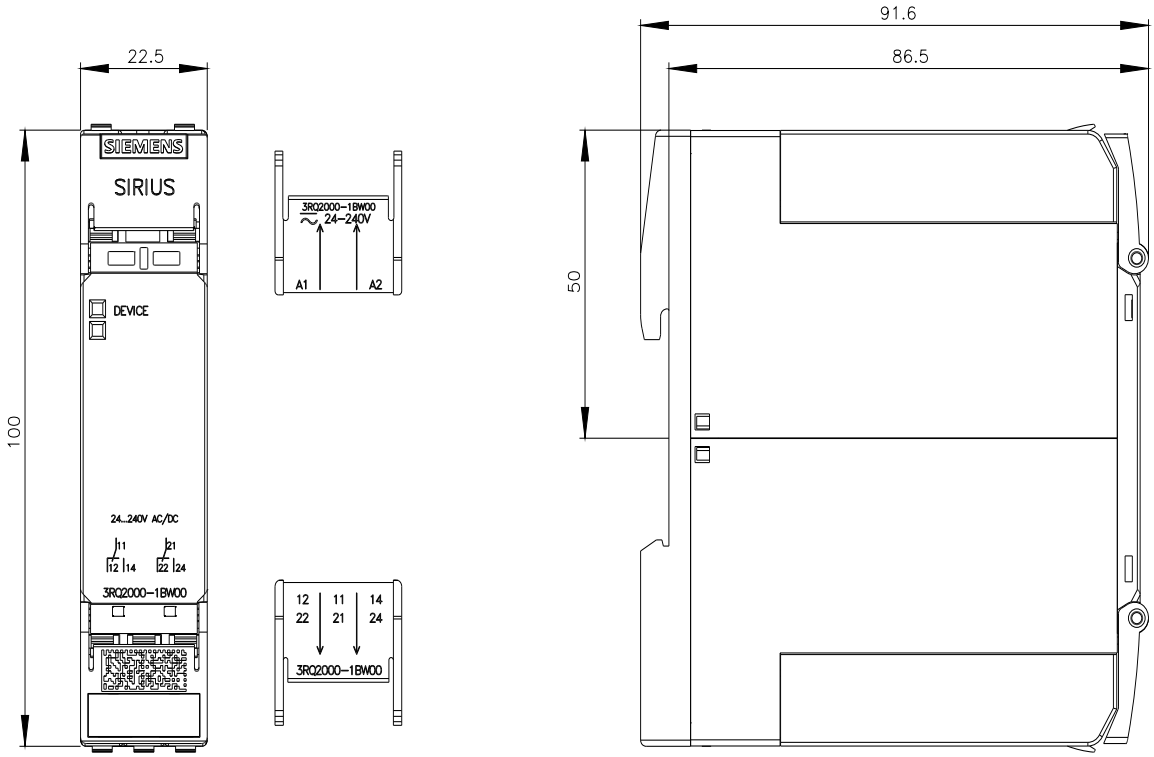
Railway

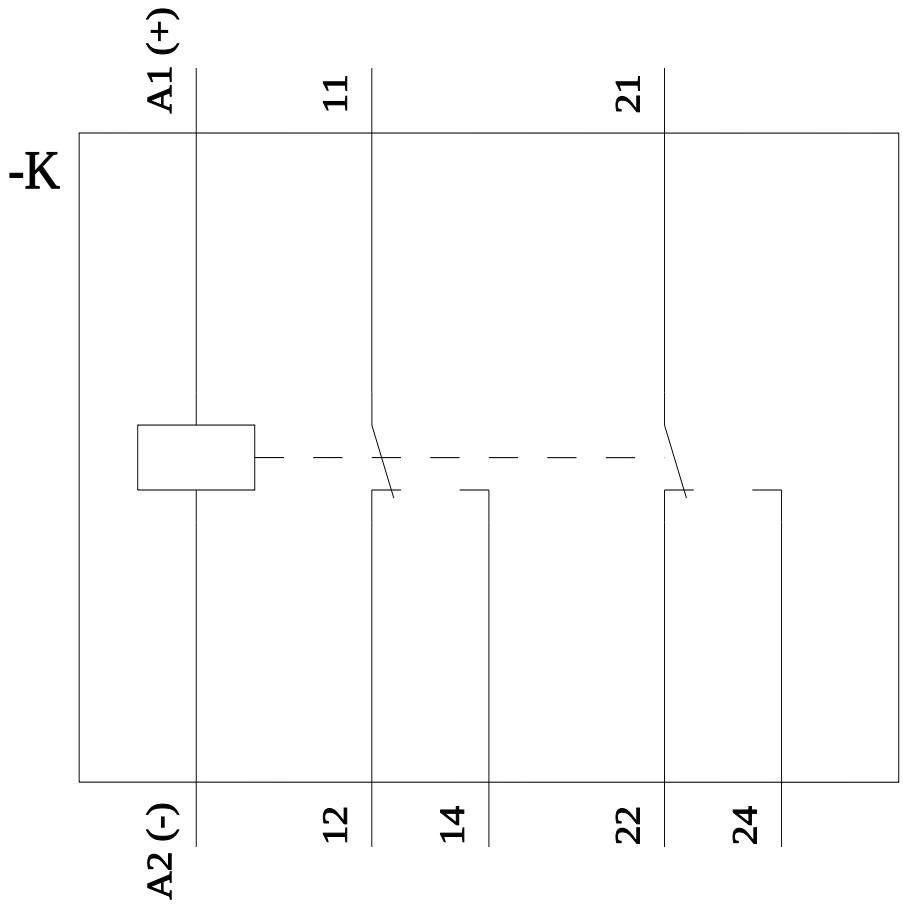
Confirmation

Further information

Information on the packaging
https://support.industry.siemens.com/cs/ww/en/view/109813875
Information for data generation and storage
https://support.industry.siemens.com/cs/ww/en/view/109995012
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=3RQ2000-1BW00
Cax online generator
https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RQ2000-1BW00
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3RQ2000-1BW00
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RQ2000-1BW00&lang=en

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