SIEMENS

Data sheet 3RQ2000-2BW00

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

Product brand name	SIRIUS
Product designation	Coupling relay in industrial enclosure
Product type designation	3RQ2

General technical data	
Consumed active power	4.5 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 safe isolation	
• between auxiliary and auxiliary circuit	300 V
• between control and auxiliary circuit acc. to IEC 60947-1	300 V
Protection class IP	IP20
Shock resistance	
• acc. to IEC 60068-2-27	11g / 15 ms
• for railway applications acc. to DIN EN 61373	Category 1, Class B

Vibration resistance	
• acc. to IEC 60068-2-6	10 ... 55 Hz: 0.35 mm
• for railway applications acc. to DIN EN 61373	Category 1, Class B
Switching behavior	monostable
Mechanical service life (switching cycles)	
• typical	10 000 000
Electrical endurance (switching cycles)	
• at AC-15 at 230 V typical	100 000
Thermal current of the switching element with contacts maximum	5 A
Reference code acc. to DIN EN 81346-2	K

Control circuit/ Control

Control supply voltage 1 at AC	
• at 50 Hz	24 ... 240 V
• at 60 Hz	24 ... 240 V
Control supply voltage 1	
• at DC	24 ... 240 V
Operating range factor control supply voltage rated value at DC	
• 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
Switch-on delay time	
• at AC maximum	10 ms
• at DC maximum	10 ms
Off-delay time	100 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
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

Outputs

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	
• acc. to IEC 60947-1	ambience A (industrial sector)
EMI immunity	
• **acc. to IEC 60947-1**	corresponds to degree of severity 3
Conducted interference	
• due to burst acc. to IEC 61000-4-4	2 kV
• due to conductor-earth surge acc. to IEC 61000-4-5	2 kV (line to ground)
• due to conductor-conductor surge acc. to IEC 61000-4-5	1 kV (line to line)
Field-bound parasitic coupling acc. to IEC 61000-4-3	10 V/m
Electrostatic discharge acc. to IEC 61000-4-2	4 kV contact discharging, 8 kV air discharging

Safety related data

Electromagnetic compatibility	IEC 60947-1 / IEC 61000-6-2 / IEC 61000-6-4

Connections/ Terminals

Product function	
• removable terminal for auxiliary and control circuit	Yes
Type of electrical connection	Push-in terminal
Type of connectable conductor cross-sections	
• solid	0.5 ... 4 mm²
• finely stranded with core end processing	0.5 ... 2.5 mm²
• at AWG conductors solid	20 ... 12
Connectable conductor cross-section	
• solid	0.5 ... 4 mm²

• finely stranded with core end processing	2.5 mm²
• finely stranded without core end processing	0.5 mm²
AWG number as coded connectable conductor cross section	
• solid	12 ... 20
• stranded	12 ... 20
Wire stripping length of the cable	
• for auxiliary and control contacts	10 mm

Installation/ mounting/ dimensions

Mounting position	any
Mounting type	screw and snap-on mounting onto 35 mm standard mounting rail
Height	100 mm
Width	22.5 mm
Depth	90 mm

Ambient conditions

Installation altitude at height above sea level	
• maximum	2 000 m
Relative humidity	
• during operation	10 ... 95 %

Certificates/ approvals

General Product Approval				EMC	Declaration of Conformity
CCC	CSA	UL	EAC	RCM	EG-Konf.

Declaration of Conformity	Test Certificates	other	Railway
Miscellaneous	Type Test Certificates/Test Report	Confirmation	Confirmation

Further information

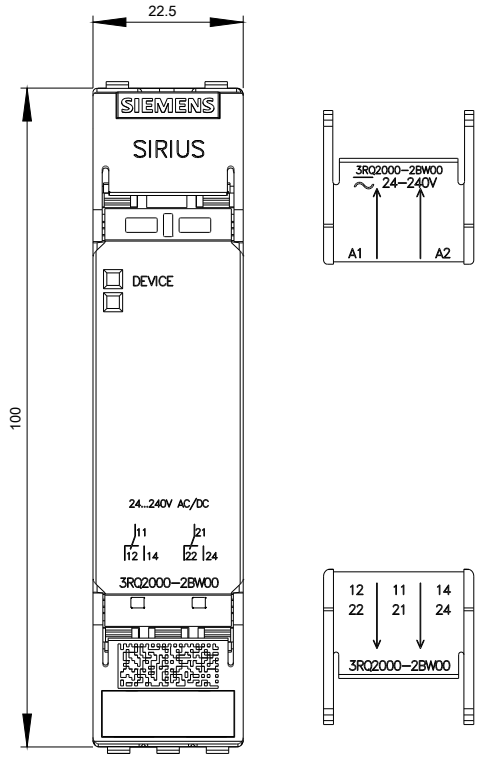
Information- and Downloadcenter (Catalogs, Brochures,…)
https://www.siemens.com/ic10

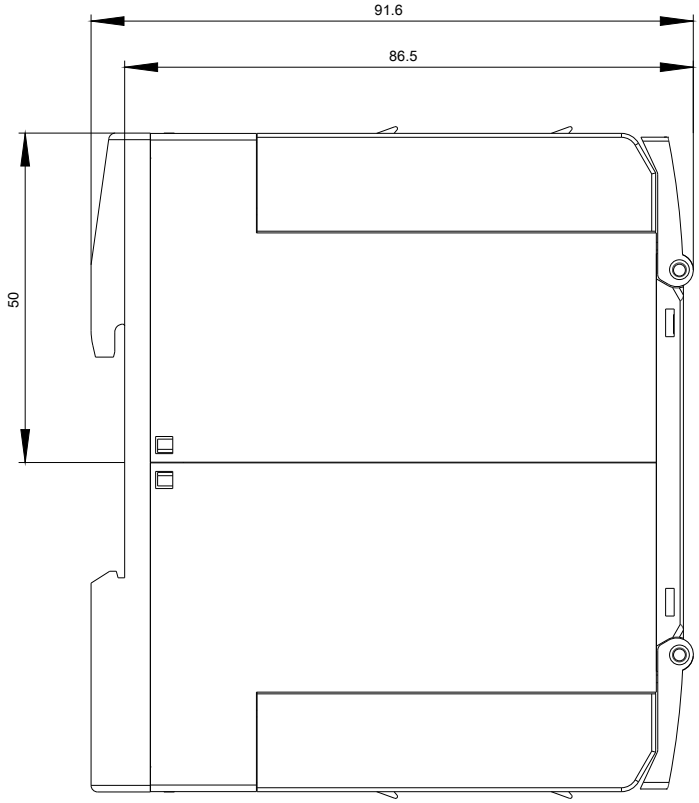
Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RQ2000-2BW00

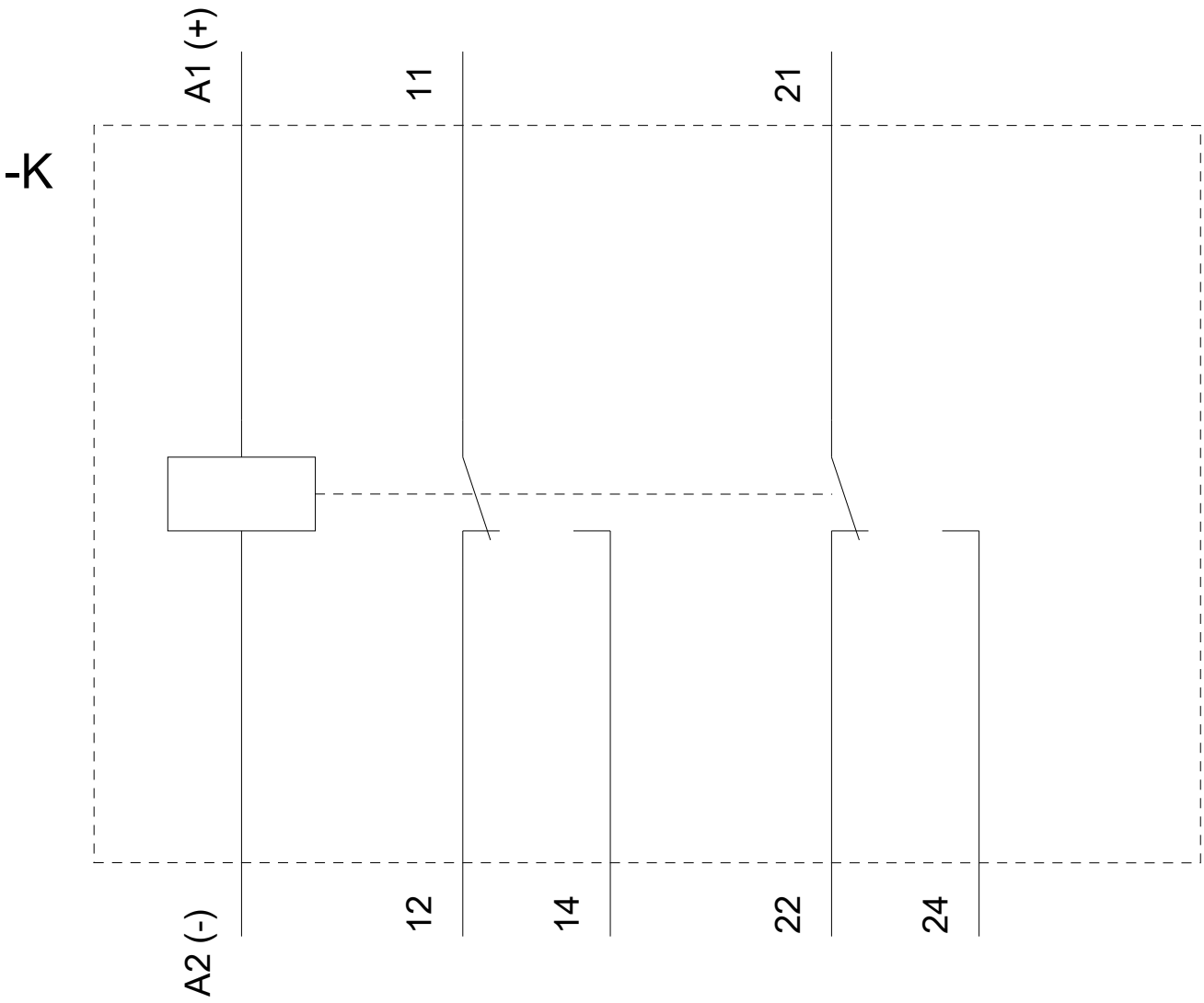
Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RQ2000-2BW00

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3RQ2000-2BW00

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RQ2000-2BW00&lang=en







last modified: 04/02/2020