## **SIEMENS**

Data sheet 3RQ4118-2AM01



output coupler with plug-in relay, 24 V DC, 1 change-over contact, spring-loaded terminal (push-in), width 6.2 mm, thermal current 6 A, hard gold-plated

product brand name	SIRIUS
product category	SIRIUS 3RQ4 coupling relay, narrow design
product designation	Coupling relay with plug-in relay
design of the product	output coupling link
product type designation	3RQ4
General technical data	
display version LED	Yes
product feature protective coating on printed-circuit board	No
product component	
relay output	Yes
semi-conductor output	No
power loss [W] maximum	0.25 W
consumed active power	0.3 W
insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3 rated value	300 V
surge voltage resistance rated value	4 kV
maximum permissible voltage for protective separation	
<ul> <li>between control and auxiliary circuit</li> </ul>	300 V
<ul> <li>between control and auxiliary circuit according to IEC 60947-1</li> </ul>	300 V
percental drop-out voltage related to the input voltage	10 %
flammability class of enclosure material	UL94 V-0
shock resistance	
according to IEC 60068-2-27	sinusoidal half-wave 15g / 11 ms
vibration resistance	
according to IEC 60068-2-6	6 150 Hz: 2 g
operating frequency maximum	72 000 1/h
switching behavior	monostable
mechanical service life (operating cycles) typical	10 000 000
electrical endurance (operating cycles)	
at AC-15 at 250 V typical	100 000
thermal current	6 A
reference code according to IEC 81346-2	K
Substance Prohibitance (Date)	09/26/2024
Weight	34 g
Control circuit/ Control	
control supply voltage at DC rated value	24 V
operating range factor control supply voltage rated value at DC	
• initial value	0.8
• full-scale value	1.25

ON-delay time	
• at AC maximum	10 ms
at DC maximum	10 ms
OFF-delay time maximum	10 ms
Switching Function	
design of the switching function positively driven	No
Digital Outputs	
property of the output short-circuit proof	No
Mechanical data	
product component plug-in socket	Yes
design of the relay operating mechanism	poled
Short-circuit protection	
design of the fuse link for short-circuit protection of the auxiliary	fuse gG: 4 A
switch required	
Auxiliary circuit	Channelyar contact
type of switching contact	Changeover contact
material of contact coating	hard gold-plated
material of switching contacts  number of CO contacts for auxiliary contacts	AgSnO2 hard gold-plated  1
operational current of auxiliary contacts at AC-15	,
at 24 V	3 A
• at 250 V	3 A
operational current of auxiliary contacts at DC-13	
• at 24 V	1A
• at 125 V	0.2 A
• at 250 V	0.1 A
contact reliability of auxiliary contacts	one incorrect switching operation of 100 million switching operations (5 V, 1
contact total state of auxiliary contacts	mA)
Main circuit	
type of voltage	DC
ampacity of the output relay at AC-15 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	
electromagnetic compatibility	acc. to EN 60947-5-1
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	
conducted interference  • due to burst according to IEC 61000-4-4	2 kV
conducted interference  • due to burst according to IEC 61000-4-4  • due to conductor-earth surge according to IEC 61000-4-5	2 kV 2 kV
conducted interference  • due to burst according to IEC 61000-4-4	2 kV
conducted interference  • due to burst according to IEC 61000-4-4  • due to conductor-earth surge according to IEC 61000-4-5  • due to conductor-conductor surge according to IEC	2 kV 2 kV
<ul> <li>conducted interference</li> <li>due to burst according to IEC 61000-4-4</li> <li>due to conductor-earth surge according to IEC 61000-4-5</li> <li>due to conductor-conductor surge according to IEC 61000-4-5</li> </ul>	2 kV 2 kV 1 kV
conducted interference  • due to burst according to IEC 61000-4-4  • due to conductor-earth surge according to IEC 61000-4-5  • due to conductor-conductor surge according to IEC 61000-4-5  field-based interference according to IEC 61000-4-3	2 kV 2 kV 1 kV
conducted interference  • due to burst according to IEC 61000-4-4  • due to conductor-earth surge according to IEC 61000-4-5  • due to conductor-conductor surge according to IEC 61000-4-5  field-based interference according to IEC 61000-4-3  electrostatic discharge according to IEC 61000-4-2	2 kV 2 kV 1 kV
conducted interference  • due to burst according to IEC 61000-4-4  • due to conductor-earth surge according to IEC 61000-4-5  • due to conductor-conductor surge according to IEC 61000-4-5  field-based interference according to IEC 61000-4-3  electrostatic discharge according to IEC 61000-4-2  Display	2 kV 2 kV 1 kV  10 V/m 6 kV contact discharge / 8 kV air discharge
conducted interference  • due to burst according to IEC 61000-4-4  • due to conductor-earth surge according to IEC 61000-4-5  • due to conductor-conductor surge according to IEC 61000-4-5  field-based interference according to IEC 61000-4-3  electrostatic discharge according to IEC 61000-4-2  Display  display version as status display by LED	2 kV 2 kV 1 kV  10 V/m 6 kV contact discharge / 8 kV air discharge
conducted interference  • due to burst according to IEC 61000-4-4  • due to conductor-earth surge according to IEC 61000-4-5  • due to conductor-conductor surge according to IEC 61000-4-5  field-based interference according to IEC 61000-4-3  electrostatic discharge according to IEC 61000-4-2  Display  display version as status display by LED  Connections/ Terminals	2 kV 2 kV 1 kV  10 V/m 6 kV contact discharge / 8 kV air discharge
conducted interference  • due to burst according to IEC 61000-4-4  • due to conductor-earth surge according to IEC 61000-4-5  • due to conductor-conductor surge according to IEC 61000-4-5  field-based interference according to IEC 61000-4-3  electrostatic discharge according to IEC 61000-4-2  Display  display version as status display by LED  Connections/ Terminals  product function removable terminal	2 kV 2 kV 1 kV  10 V/m 6 kV contact discharge / 8 kV air discharge
conducted interference  • due to burst according to IEC 61000-4-4  • due to conductor-earth surge according to IEC 61000-4-5  • due to conductor-conductor surge according to IEC 61000-4-5  field-based interference according to IEC 61000-4-3  electrostatic discharge according to IEC 61000-4-2  Display  display version as status display by LED  Connections/ Terminals  product function removable terminal  type of electrical connection	2 kV 2 kV 1 kV  10 V/m 6 kV contact discharge / 8 kV air discharge  LED green
conducted interference  • due to burst according to IEC 61000-4-4  • due to conductor-earth surge according to IEC 61000-4-5  • due to conductor-conductor surge according to IEC 61000-4-5  field-based interference according to IEC 61000-4-3  electrostatic discharge according to IEC 61000-4-2  Display  display version as status display by LED  Connections/ Terminals  product function removable terminal  type of electrical connection  • for auxiliary and control circuit	2 kV 2 kV 1 kV  10 V/m 6 kV contact discharge / 8 kV air discharge  LED green
conducted interference  • due to burst according to IEC 61000-4-4  • due to conductor-earth surge according to IEC 61000-4-5  • due to conductor-conductor surge according to IEC 61000-4-5  field-based interference according to IEC 61000-4-3  electrostatic discharge according to IEC 61000-4-2  Display  display version as status display by LED  Connections/ Terminals  product function removable terminal  type of electrical connection  • for auxiliary and control circuit  type of connectable conductor cross-sections	2 kV 2 kV 1 kV  10 V/m 6 kV contact discharge / 8 kV air discharge  LED green  No spring-loaded terminals (push-in)
conducted interference  • due to burst according to IEC 61000-4-4  • due to conductor-earth surge according to IEC 61000-4-5  • due to conductor-conductor surge according to IEC 61000-4-5  field-based interference according to IEC 61000-4-3  electrostatic discharge according to IEC 61000-4-2  Display  display version as status display by LED  Connections/ Terminals  product function removable terminal  type of electrical connection  • for auxiliary and control circuit  type of connectable conductor cross-sections  • solid	2 kV 2 kV 1 kV  10 V/m 6 kV contact discharge / 8 kV air discharge  LED green  No spring-loaded terminals (push-in)  1x (0.25 2.5 mm²)
conducted interference  • due to burst according to IEC 61000-4-4  • due to conductor-earth surge according to IEC 61000-4-5  • due to conductor-conductor surge according to IEC 61000-4-5  field-based interference according to IEC 61000-4-3  electrostatic discharge according to IEC 61000-4-2  Display  display version as status display by LED  Connections/ Terminals  product function removable terminal  type of electrical connection  • for auxiliary and control circuit  type of connectable conductor cross-sections  • solid  • finely stranded with core end processing	2 kV 2 kV 1 kV  10 V/m 6 kV contact discharge / 8 kV air discharge  LED green  No  spring-loaded terminals (push-in)  1x (0.25 2.5 mm²) 1x (0.25 1.5 mm²)
conducted interference  • due to burst according to IEC 61000-4-4  • due to conductor-earth surge according to IEC 61000-4-5  • due to conductor-conductor surge according to IEC 61000-4-5  field-based interference according to IEC 61000-4-3  electrostatic discharge according to IEC 61000-4-2  Display  display version as status display by LED  Connections/ Terminals  product function removable terminal  type of electrical connection  • for auxiliary and control circuit  type of connectable conductor cross-sections  • solid  • finely stranded with core end processing  • finely stranded without core end processing	2 kV 2 kV 1 kV  10 V/m 6 kV contact discharge / 8 kV air discharge  LED green  No spring-loaded terminals (push-in)  1x (0.25 2.5 mm²) 1x (0.25 1.5 mm²) 1x (0.25 2.5 mm²)
conducted interference  • due to burst according to IEC 61000-4-4  • due to conductor-earth surge according to IEC 61000-4-5  • due to conductor-conductor surge according to IEC 61000-4-5  field-based interference according to IEC 61000-4-3  electrostatic discharge according to IEC 61000-4-2  Display  display version as status display by LED  Connections/ Terminals  product function removable terminal  type of electrical connection  • for auxiliary and control circuit  type of connectable conductor cross-sections  • solid  • finely stranded with core end processing  • finely stranded without core end processing  • for AWG cables solid	2 kV 2 kV 1 kV  10 V/m 6 kV contact discharge / 8 kV air discharge  LED green  No  spring-loaded terminals (push-in)  1x (0.25 2.5 mm²) 1x (0.25 2.5 mm²) 1x (0.25 2.5 mm²) 1x (0.25 2.5 mm²)
conducted interference  • due to burst according to IEC 61000-4-4  • due to conductor-earth surge according to IEC 61000-4-5  • due to conductor-conductor surge according to IEC 61000-4-5  field-based interference according to IEC 61000-4-3  electrostatic discharge according to IEC 61000-4-2  Display  display version as status display by LED  Connections/ Terminals  product function removable terminal  type of electrical connection  • for auxiliary and control circuit  type of connectable conductor cross-sections  • solid  • finely stranded with core end processing  • finely stranded without core end processing  • for AWG cables solid  • for AWG cables stranded	2 kV 2 kV 1 kV  10 V/m 6 kV contact discharge / 8 kV air discharge  LED green  No  spring-loaded terminals (push-in)  1x (0.25 2.5 mm²) 1x (0.25 2.5 mm²) 1x (0.25 2.5 mm²) 1x (0.25 2.5 mm²)

finely stranded without core end processing	0.25 2.5 mm²
AWG number as coded connectable conductor section	cross
• solid	20 14
stranded	20 14
size of the screwdriver tip	PZ1
stripped length	10 mm
Installation/ mounting/ dimensions	
mounting position	any
fastening method	snap-on mounting
height	93 mm
width	6.2 mm
depth	88.5 mm
required spacing	
<ul><li>with side-by-side mounting</li></ul>	
— forwards	0 mm
— backwards	0 mm
— upwards	0 mm
— downwards	0 mm
— at the side	0 mm
<ul> <li>for grounded parts</li> </ul>	
— forwards	0 mm
— backwards	0 mm
— upwards	0 mm
— at the side	0 mm
— downwards	0 mm
<ul> <li>for live parts</li> </ul>	
— forwards	0 mm
— backwards	0 mm
— upwards	0 mm
— downwards	0 mm
— at the side	0 mm
Ambient conditions	
installation altitude at height above sea level maxim	2 000 m
ambient temperature	
<ul><li>during operation</li></ul>	-25 +60 °C
<ul><li>during storage</li></ul>	-40 +85 °C
during transport	-40 +85 °C
relative humidity during operation	10 95 %
Approvals Certificates	
General Product Approval other	Environment

EAC

Confirmation



## Further information

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=3RQ4118-2AM01

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RQ4118-2AM01

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

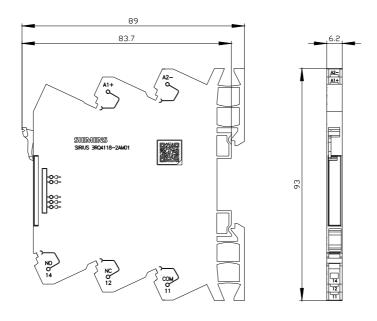
https://support.industry.siemens.com/cs/ww/en/ps/3RQ4118-2AM01

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

http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RQ4118-2AM01&lang=en

**Characteristic: Derating** 

https://support.industry.siemens.com/cs/ww/en/ps/3RQ4118-2AM01/manual



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