

AS-i compact module K45 digital A/B slave 4 x (1 DI/1 DQ), IP67 4 x 1 input / 1 output 4 x M12 socket Total current for all inputs and outputs max. 500 mA Supply I/O from 24 V DC Mounting plate 3RK1901-2EA00 or 3RK1901-2DA00 is to be ordered separately

General technical data	
design of the product	digital I/O modules for operation in the field, IP67 - K45
Type	4 x (1 input / 1 output)
design of the slave type	A/B slave (Spec. 3.0)
I/O configuration	7
ID/ID2 code	A/7
Number I/O sockets	4
type of electrical connection of the inputs and outputs	M12 screw-type terminals
AS interface total current input max	45 mA
operating voltage according to AS-Interface specification	26.5 ... 31.6 V
Ground terminal	Using PIN5 on the M12 sockets. Outgoing via flat tab sleeve (2.8 x 0.8 mm form A)
Addressing	front addressing socket
AS interface Connection Polarity reversal protection	built-in
Delivery note	the modules are delivered without mounting plate
Note 2	This module requires a master according to AS-i specifications 3.0
Sensor supply	
type of voltage supply for sensor supply	via AUX POWER
input voltage	16.5 ... 30 V
property of the sensor supply short-circuit and overload resistant	Yes
ampacity of the sensor supply for all inputs	
• at ambient temperature 40 °C	650 mA
• at ambient temperature 55 °C	500 mA
Inputs	
number of digital inputs	4
type of connection technology	2- and 3-wire technology
Input circuit	PNP transistor
type of voltage of the input voltages	DC
Inputs switching level High min	10 V
input current at digital input	
• for signal <1> minimum	6 mA
• with signal <0> maximum	1.5 mA
Inputs socket assignment	
• PIN 1	sensor supply L+
• PIN 2	output
• PIN 3	sensor supply/outputs L-
• PIN 4	data input
• PIN 5	ground terminal
design of the pin assignment of the inputs	Y assignment
Outputs	

number of digital outputs	4
type of voltage of output voltages	DC
Outputs external power supply 24 V DC	using black AS-Interface flat cable
ampacity of the semiconductor output at DC-13 at 24 V	0.5 A
Outputs aggregate current	
• max	1.5 A
• at Tu=40 °C max	2.5 A
type of switching output	PNP transistor
design of the pin assignment of the outputs	Y assignment
Outputs socket assignment	3 = "-", 2 = output, 5 = ground terminal
property of the output short-circuit proof	Yes
Outputs	
• short-circuit protection	built-in
• induction protection	built-in
• watchdog	built-in

Display

Status display	
• display of I/Os	yellow LED
• display of Uaux	green LED
• display of AS-Interface/diagnostics	green/red dual LED

Assignment of the data bits

Assignment of data bits	
• socket	PIN 4 = IN1 (D0), PIN 2 = OUT1 (D0)
• socket 2	PIN 4 = IN2 (D1), PIN 2 = OUT2 (D1)
• socket 3	PIN 4 = IN3 (D2), PIN 2 = OUT3 (D2)
• socket 4	PIN 4 = IN4 (D3), PIN 2 = OUT4 (D3)

Ambient conditions

ambient temperature	
• during operation	-25 ... +85 °C
• during storage	-40 ... +85 °C
protection class IP	IP67

Mechanical data

width	45 mm
height	80 mm
depth	30 mm
fastening method	standard rail mounting/wall mounting using mounting plate for K45 compact module
shock resistance	15g / 11 ms

Certificates/ approvals

General Product Approval	EMV	Maritime application
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other	Environment	Industrial Communication
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[Confirmation](#)

[Miscellaneous](#)

[Environmental Confirmations](#)



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=3RK2400-1GQ20-1AA3>

Cax online generator

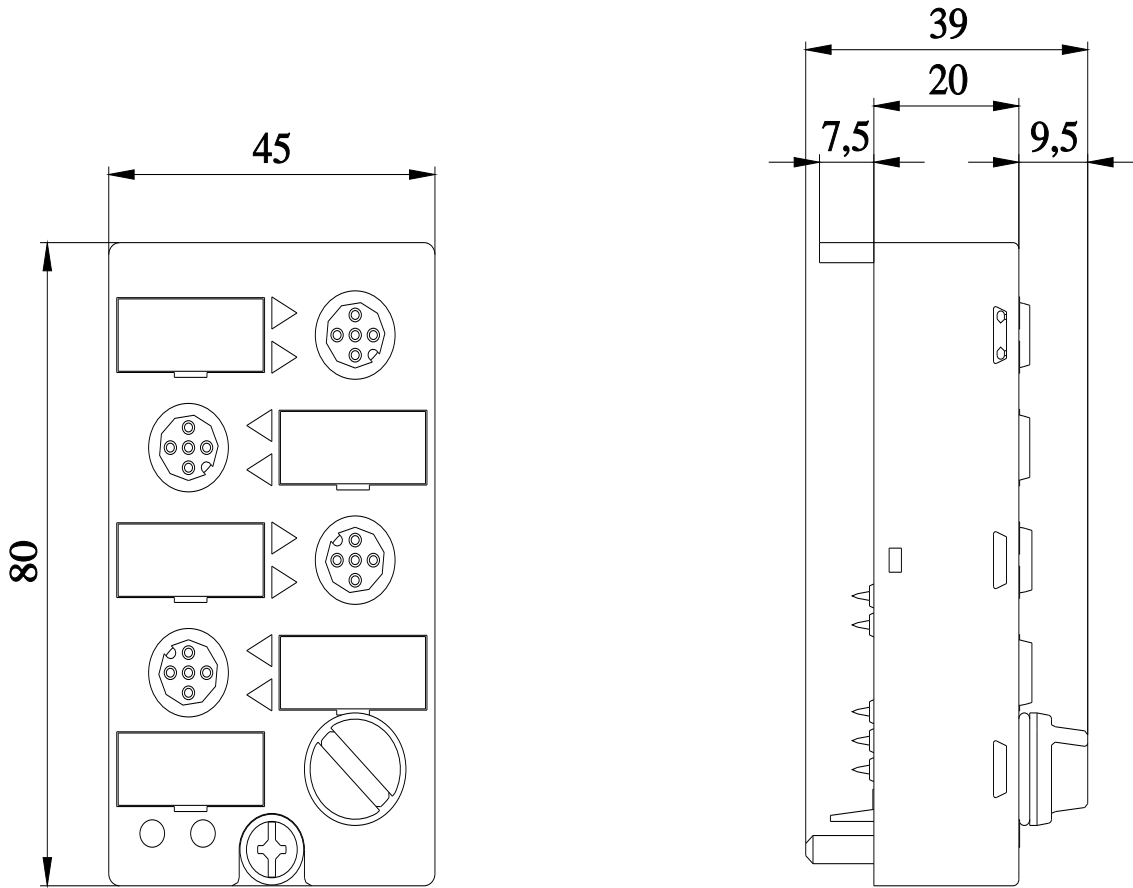
<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RK2400-1GQ20-1AA3>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RK2400-1GQ20-1AA3>

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

https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RK2400-1GQ20-1AA3&lang=en



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