SIEMENS

Data sheet 3RK2400-1BQ20-0AA3

AS-i compact module K45 digital A/B slave, 2 DI/2 DQ, IP67 2 x input, maximum 200 mA 2 x output, 2 A 24 V DC maximal 3 A for all outputs 4 x M12 socket 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	2 outputs / 2 inputs
design of the slave type	A/B slave
I/O configuration	B
ID/ID2 code	A/0
Number I/O sockets	4
type of electrical connection of the inputs and outputs	M12 screw-type terminals
AS interface total current input max	270 mA
operating voltage according to AS-Interface spezification	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 1	An external additional supply (AUX POWER) of 20 to 30 V DC is required for the supply of the output circuits. The additional supply must comply with VDE 0106 (PELV), protection class III.
Sensor supply	
type of voltage supply for power supply	using AS-Interface
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	200 mA
Inputs	
number of digital inputs	2
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 sensor supply using AS-Interface	short-circuit and overload resistant
Inputs socket assignment	
● PIN 1	sensor supply L+
● PIN 2	data input
● PIN 3	sensor supply L-
● PIN 4	data input
● PIN 5	ground terminal

design of the pin assignment of the inputs	standard assignement
Outputs	
number of digital outputs	2
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	2 A
Outputs aggregate current	
• max	3 A
type of switching output	PNP transistor
design of the pin assignment of the outputs	standard assignement
Outputs socket assignment	3 = "-", 4 = output, 5 = ground terminal
property of the output short-circuit proof	Yes
Outputs	
• short-ciruit 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 4/2 = IN3 (D2)
• socket 2	PIN 4/2 = IN4 (D3)
• socket 3	PIN 4 = OUT1 (D0)
• socket 4	PIN 4 = OUT2 (D1)
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				EMC	Declaration of Conformity
CSA	Confirmation	UL	EAC	RCM	EG-Konf.

Marine / Shipping

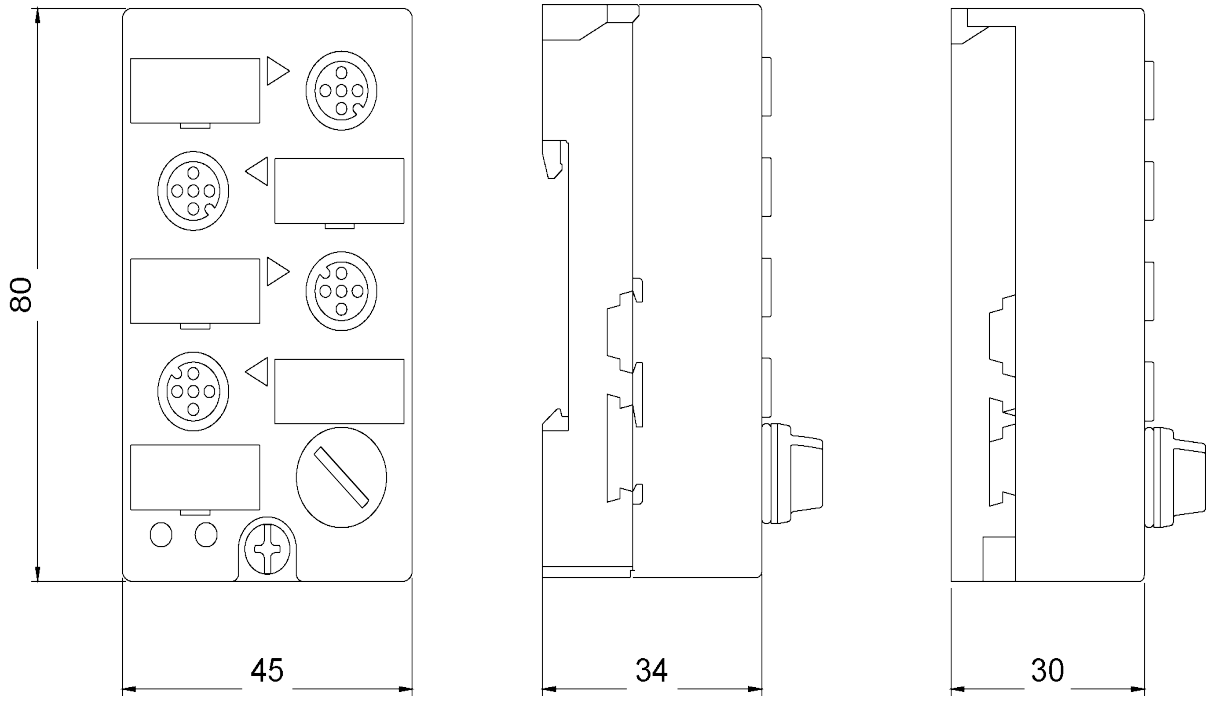
ABS | BUREAU VERITAS | LRS | PRS | RMRS | DNV·GL

other

Confirmation Miscellaneous

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=3RK2400-1BQ20-0AA3
Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RK2400-1BQ20-0AA3
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3RK2400-1BQ20-0AA3
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RK2400-1BQ20-0AA3&lang=en



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