

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 power 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 | EMC | Declaration of Conformity |
|--------------------------|-----|---------------------------|

[Confirmation](#)



|                   |       |
|-------------------|-------|
| Marine / Shipping | other |
|-------------------|-------|



[Confirmation](#)

[Miscellaneous](#)

#### Further information

Siemens has decided to exit the Russian market (see here).

<https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business>

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

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=3RK2400-1GQ20-1AA3>

Cax online generator

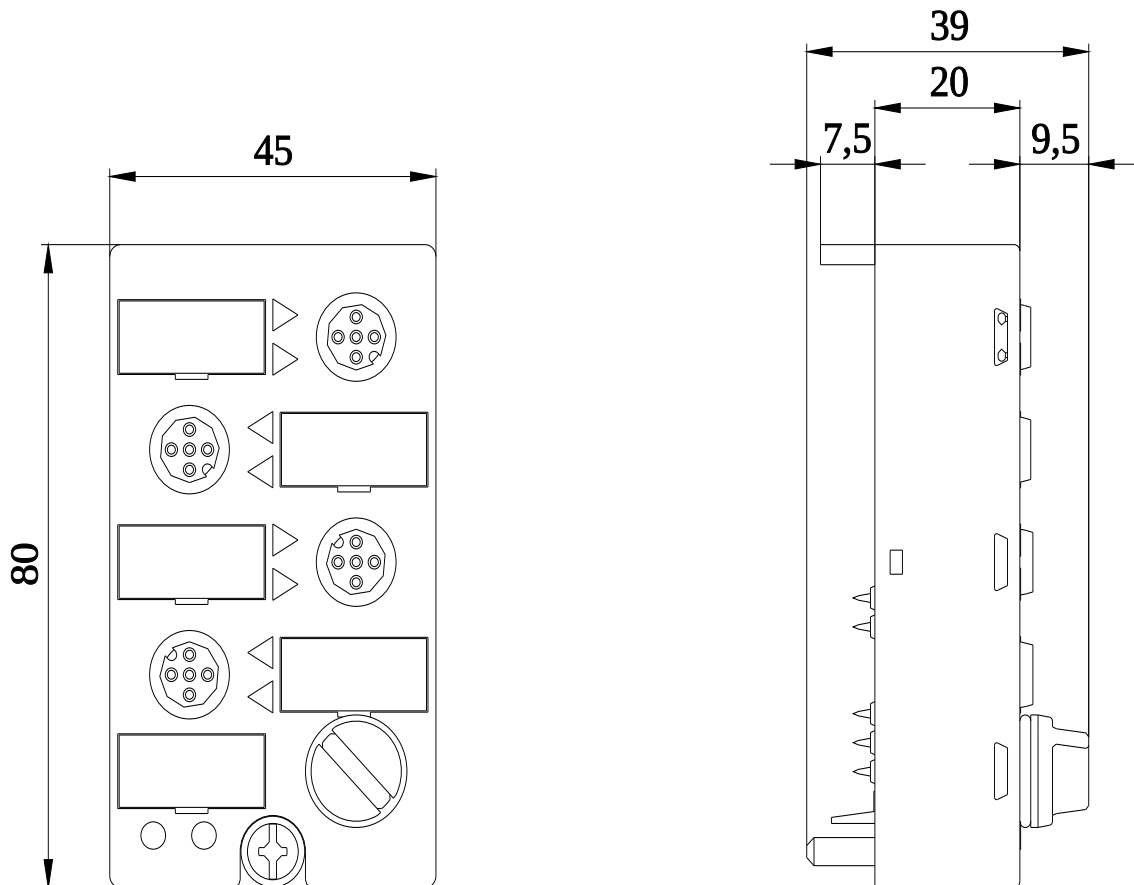
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RK2400-1GQ20-1AA3>

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, ...)

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RK2400-1GQ20-1AA3&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RK2400-1GQ20-1AA3&lang=en)



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