

ACTUATOR SENSOR INTERFACE F90 4I/4O
 APPLICATION MODULE, IP20 4X1 INPUT 200MA
 PNP,4X1 OUTPUT ELECTRONICS DC 24V, 1A
 SCREW TERMINALS, EXT. VOLTAGE SUPPLY VIA
 SCREW TERMINALS



General technical data:

| | | |
|--|----|---|
| Design of the product | | F90 module - I/O modules for operation in the control cabinet, IP20 |
| Type | | 4 inputs / 4 outputs |
| Design of the slave type | | standard slave |
| I/O configuration | | 7 |
| ID/ID2 code | | 0/F |
| Type of electrical connection of the inputs and outputs | | screw-type terminals |
| AS interface total current input max | mA | 270 |
| operating voltage according to AS-Interface specification | V | 26.5 ... 31.6 |
| Addressing | | possible using integrated addressing socket |
| Watchdog | | built-in |
| 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 |
| Property of the sensor supply Short-circuit and overload resistant | | Yes |
| Ampacity of the sensor supply for all inputs at ambient temperature 40 °C | mA | 200 |

Inputs:

| | | |
|---------------------------------|--|---|
| Number of digital inputs | | 4 |
|---------------------------------|--|---|

| | | |
|--|----|--------------------------------------|
| Type of connection | | 2- and 3-conductor PNP transistor |
| Input circuit | | PNP transistor |
| Type of voltage of the input voltages | | DC |
| Input current at digital input | | |
| • for signal <1> minimum | mA | 5 |
| • with signal <0> maximum | mA | 1.5 |
| Inputs | | |
| • switching level High min | V | 10 |
| • sensor supply using AS-Interface | | short-circuit and overload resistant |
| • connection sensors | | 2- and 3-conductor technology |

Outputs:

| | | |
|--|---|----------------------------|
| Number of digital outputs | | 4 |
| Type of voltage of output voltages | | DC |
| Outputs external power supply 24 V DC | | using screw-type terminals |
| Output current at digital output for signal <1> Rated value | A | 1 |
| Type of switching output | | solid state |
| Outputs total current of all outputs | A | 4 |
| Property of the output Short-circuit proof | | Yes |
| Outputs | | |
| • short-circuit protection | | built-in |
| • induction protection | | built-in |
| Status display | | |
| • display of I/Os | | yellow LEDs |
| • display of AS-Interface/diagnostics | | green/red dual LED |
| Assignment of data bits | | |
| • D0 | | IN1/OUT1 |
| • D1 | | IN2/OUT2 |
| • D2 | | IN3/OUT3 |
| • D3 | | IN4/OUT4 |

Ambient conditions:

| | | |
|----------------------------|----|-------------|
| Ambient temperature | | |
| • during operation | °C | -25 ... +70 |
| • during storage | °C | -40 ... +85 |
| Protection class IP | | IP20 |

Mechanical data:

| | | |
|----------------------|----|------------------------------|
| Width | mm | 90 |
| Height | mm | 75 |
| Depth | mm | 37 |
| Mounting type | | 35 mm standard rail mounting |

Certificates/ approvals:

| | |
|---------------------------------|--------------------------|
| AS-Interface certificate | yes |
| Approvals | UL, CSA, shipbuilding |
| General Product Approval | Shipping Approval |



CSA



UL



ABS



BUREAU
VERITAS



DNV

| | |
|--------------------------|--------------|
| Shipping Approval | other |
|--------------------------|--------------|



LRS



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| |
|--------------|
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Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/industrial-controls/catalogs>

Industry Mall (Online ordering system)

<http://www.siemens.com/industrymall>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=3RG90020DB00>

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

<http://support.automation.siemens.com/WW/view/en/3RG90020DB00/all>

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

<http://www.automation.siemens.com/bilddb/index.aspx?attID9=3RG90020DB00&lang=en>

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