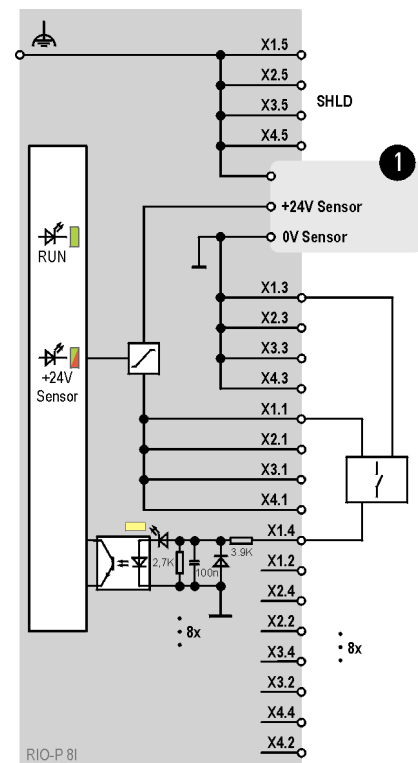


The RIO-P 8I digital module provides 8 input channels for binary DC signals with 24 V level. The inputs are suitable for sensors with antivalent switching behaviour. The bus coupler outputs the data via the internal slide bus and passes it, isolated, to the higher-level controller as a process map. The signal state of each channel can be read on an LED.

Block diagram



Technical Data	RIO-P 8I
Article number	384 382 83
Number of inputs/outputs	8 inputs binary
External supply voltage	DC 24 V ($\pm 20\%$, max. 5% residual ripple)
Data width	1 bit per channel I/O
Power consumption	0.25 W (without input current) from external 24 V supply 0.275 W from internal 5 V supply
Connection system	Two/three-wire
Inputs	
Switching level	H level +11 ... +30 V L level -30 ... +5 V
Input current	Min. H level (+11 V): $I \geq 2.0$ mA Max. L level (+5V): $I \leq 0.6$ mA Typ. (+24 V): $I = 5.3$ mA
Isolation	Each channel individually isolated from internal bus by optocouplers
Signal delay	Typical 100 μ s (hardware)
Input filter	1.5 ms / 6 ms / none (parameterizable via diagnosis interface)
Current limitation of sensor power supply per module	$I_{\max} = 0.4$ A

For general technical data see next page

Technical Data RIO Protected IP67

Supply voltage

Operating voltage	24 V DC \pm 20% max. 5% residual ripple
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Connection system

Sensors / actuators	M12 connectors 5-pin
Field bus	M12 connectors 5-pin
Supply voltage	Depending on infeed module: CA, 7/8" or M23

Housing and installation

Type of protection	IP 67 to EN 60529
Dimensions (W x H x D)	70 x 140 x 45 mm (bus coupler and I/O modules)
Fixing	On electrically conductive surface with at least two diagonally opposed fixing points (for normal mechanical load) with M4 screws
Installation Position	Any

Climatic conditions

Ambient operating temperature	0 ... +55°C (category KV to DIN 40040)
Storage temperature	-25 ... +70°C (category HS to DIN 40040)
Relative humidity	100%
Air pressure in operation	860 ... 1060 hPa

Mechanical strength

Vibration	10 ... 57 Hz constant amplitude 0.075 mm 57 ... 150 Hz constant acceleration 1 g (to DIN IEC 68-2-6)
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Electromagnetic compatibility

Electrostatic discharge	EN 61000-4-2: 8 kV contact discharge
Electromagnetic fields	EN 61000-4-3: field intensity 10 V/m, 80 ... 1000 MHz
Burst	EN 61000-4-4: 2 kV on DC supply lines, 1 kV on I/O signal and serial interface lines
Interference emissions	EN 55011: Limit Category A, Group 1