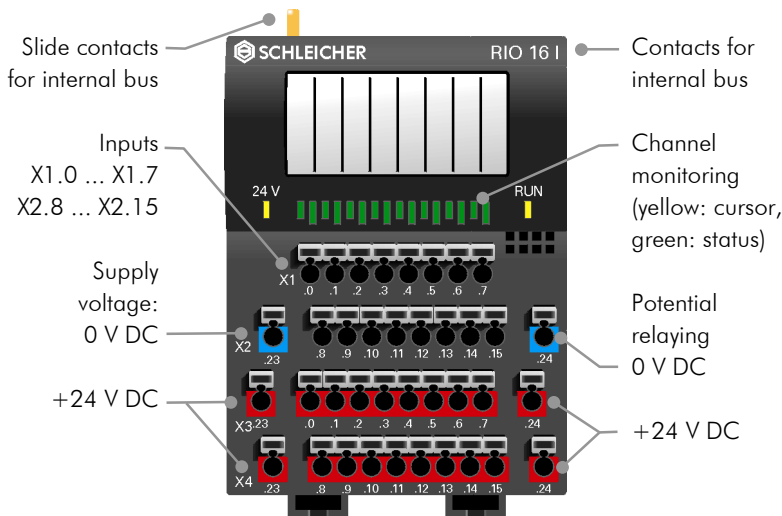


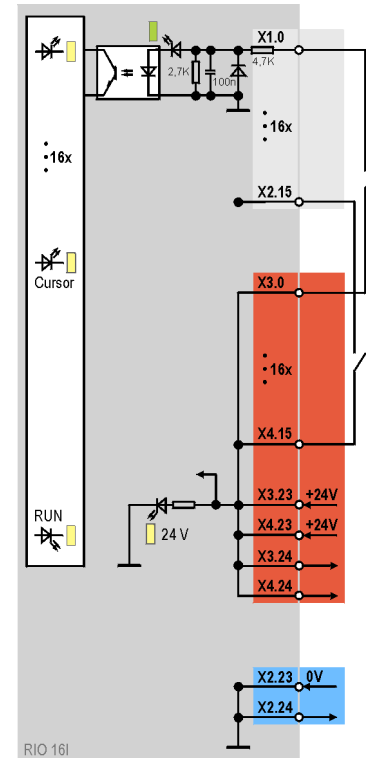
Digital 16 Inputs DC 24 V

RIO 16I



The RIO 16I digital module provides 16 input channels for binary DC signals with 24 V level. 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. Additional jumper levels can be created with the pluggable terminal extension.

Block diagram



Technical Data	RIO 16I
Article number	364 157 57
Number of inputs/outputs	16 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-wire (with RIO KE 16 terminal extension: four-wire)
Inputs	
Switching level	H level +15 ... +30 V L level -30 ... +5 V
Input current	min. H level (+15V): $I \geq 2.5$ mA max. L level (+5V): $I \leq 0.7$ mA typ. (+24 V): $I = 4.5$ mA
Isolation	Each channel individually isolated from internal bus by optocouplers
Signal delay	Typical 100 μ s (hardware)
For general technical data see next page	

Technical Data RIO IP20

Electrical data

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

Sensors / actuators	Spring terminal
Field bus	Profibus-DP: Subminiature, 9-pin
Supply voltage	Interbus: Screw terminals
	CAN DeviceNet / CANopen: Open style connector
	Spring terminal
Cable cross-section	Finely stranded 0.14 – 1.5 mm ² , single-core 0.5 – 2.5 mm ²

Housing and installation

Type of protection	IP 20 to EN 60529
Dimensions (W x H x D)	RIO microLine PLC: 74.5 x 93 x 51 mm
	RIO BC Bus Couplers: 74.5 x 93 x 51 mm
	RIO EC Bus Couplers: 63 x 93 x 51 mm
	RIO Expansion Modules: 69 x 93 x 51 mm
	RIO Compact I/Os: 69 x 93 x 51 mm
	RIO Terminal Extensions: 69 x 36 x 45 mm
Rail	DIN rail EN 50022-35
Installation position	Vertical, free air circulation

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	30 ... 95% (category F to DIN 40040), no condensation
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)

Electromagnetic compatibility

Electrostatic discharge	EN 61000-4-2: 4 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