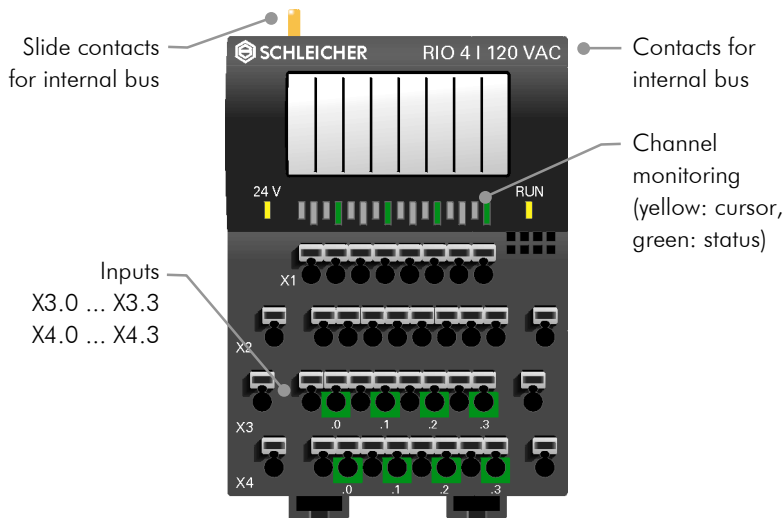
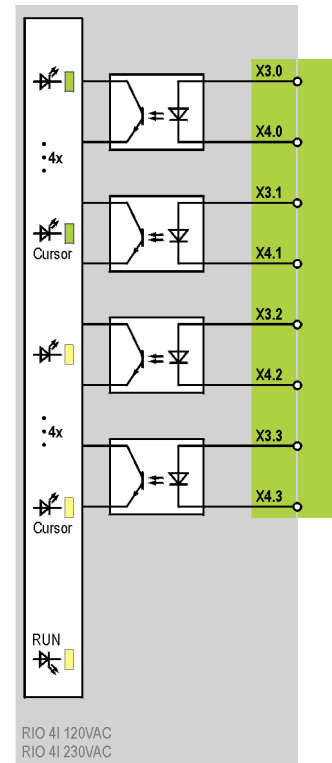


Digital	4 Inputs	AC 120 V	RIO 4I 120 VAC
Digital	4 Inputs	AC 230 V	RIO 4I 230 VAC



Block diagram



Digital modules RIO 4I 120 VAC and RIO 4I 230 VAC provide 4 input channels for binary AC signals with 120 V or 230 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.

Technical Data	RIO 4I 120 VAC	RIO 4I 230 VAC
Article number	364 382 28	364 382 23
Number of inputs/outputs	4 inputs binary	
Data width	1 bit per channel I/O	
External supply voltage	none	
Power consumption	None from external 24 V supply 0.2 W from internal 5 V supply	
Connection system	Two-wire (with RIO KE 16 terminal extension: four-wire)	
Inputs		
Switching level	H level AC 74 ... 132 V L level AC 0 ... 20 V	H level AC 159 ... 253 V L level AC 0 ... 40 V
Input current	min. H level AC 74 V): I ≥ 5 mA max. L level (AC 20 V): I ≥ 2.3 mA	min. H level AC 159 V): I ≥ 5 mA max. L level (AC 40 V): I ≥ 2.3 mA
Isolation	Each channel individually isolated from internal bus by optocouplers	
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