



I/O module, SmartWire-DT, 4DI-2DO relays

Part no. **SWIRE-4DI-2DO-R**
 Article no. **107030**
 Catalog No. **SWIRE-4DI-2DO-R**

Delivery program

Subrange		Module
Basic function		Connection system SmartWire
Description		4 digital inputs 2 digital relay outputs
Notes		
Max. 4 SmartWire I/O modules per rung.		

Technical data

General

Standards			
General			IEC/EN 60947 EN 55011 EN 55022 IEC/EN 61000-4 IEC/EN 60068-2-27
Mounting			Top-hat rail IEC/EN 60715 (35mm) or screw fixing with fixing brackets ZB4-101-GF1 (accessories)
Dimensions (W x H x D)		mm	35 x 90 x 74
Weight		kg	0.12

Terminal capacities

Solid		mm ²	0.5...1.5
Flexible with ferrule		mm ²	0.5...1.5
Solid or stranded		AWG	22...16
Standard screwdriver		mm	3.5 x 0.8
Max. tightening torque		Nm	0.6

Climatic environmental conditions

Ambient temperature			
Operation		°C	-25 - +55
Storage		°C	-25 - +70
Condensation			Take appropriate measures to prevent condensation
Relative humidity, non-condensing (IEC/EN 60068-2-30)		%	5 - 95
Air pressure (operation)		hPa	795 - 1080

Ambient conditions, mechanical

Protection type (IEC/EN 60529, EN50178, VBG 4)			IP20
Overvoltage category/pollution degree			2
Mounting position			Vertical

Electromagnetic compatibility (EMC)

Electrostatic discharge (IEC/EN 61000-4-2, Level 3, ESD)		kV	
Air discharge		kV	8
Electromagnetic fields (IEC/EN 61000-4-3, RFI)	V/m		10
Radio interference suppression EN 55011, EN 55022			Class A
Burst Impulse (IEC/EN 61000-4-4, Level 3)			
Supply cable		kV	2
power pulses (surge) (IEC/EN 61000-4-5, level 2)		kV	0.5 (supply cables, symmetrical)
Immunity to line-conducted interference to (IEC/EN 61000-4-6)		V	10

Insulation resistance

Clearance in air and creepage distances			EN 50178, EN 60947-1, UL 508, CSA C22.2 No 142
Insulation resistance			EN 50178, EN 60947-1

Voltage supply, Gateway electronic and SmartWire station electronics U_{Gateway}

Admissible range			Supply from gateway
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LEDs

Ready for operation			Ready: green
Status Outputs			Q1, Q2: Green

Connection potential-free contacts

Number			4
Rated voltage (own supply)	U _e	V DC	17
Input current at "1" signal, typically		mA	5
max. conductor length		m	< 2.8

MODBUS

Potential isolation			
To SmartWire			to supply voltage U _{AUX} : no to supply voltage U _{Gateway} : no

SmartWire

Connection types			Plug, 6-pole
Data/power cable			6 core flat-band cable
maximum cable length System SmartWire		m	4
Bus termination			Connector plug
Station address			1...16
Station			Max. 4 SmartWire modules per rung.
Address allocation			Automatic via SmartWire
Function			SmartWire-Slave
Data transfer time System SmartWire			
Write switch			typically 20 ms for all stations
Read status information			typically 10 ms per station

Relay outputs

Rated impulse withstand voltage	U _{imp}	V AC	4000
Overvoltage category/pollution degree			III/3
Rated insulation voltage	U _i	V	250
Rated operational voltage	U _e	V	250
Making capacity		A	30
Breaking capacity	380 ... 400 V	A	10
Rated operational current	I _e	A	
AC-15, 250 V	I _e	A	3
DC-12, 30 V	I _e	A	3
Conventional thermal current	I _{th}	A	6
Short-circuit rating without welding			
Max. fuse		A gG/gL	10

Design verification as per IEC/EN 61439

Technical data for design verification			
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	55

Technical data ETIM 6.0

PLC's (EG000024) / Fieldbus, decentr. periphery - digital I/O module (EC001599)			
Electric engineering, automation, process control engineering / Control / Field bus, decentralized peripheral / Field bus, decentralized peripheral - digital I/O module (ecl@ss8.1-27-24-26-04 [BAA055011])			
Supply voltage AC 50 Hz		V	0 - 0
Supply voltage AC 60 Hz		V	0 - 0
Supply voltage DC		V	17 - 17
Voltage type of supply voltage			DC
Number of digital inputs			4
Number of digital outputs			2
Digital inputs configurable			No
Digital outputs configurable			No

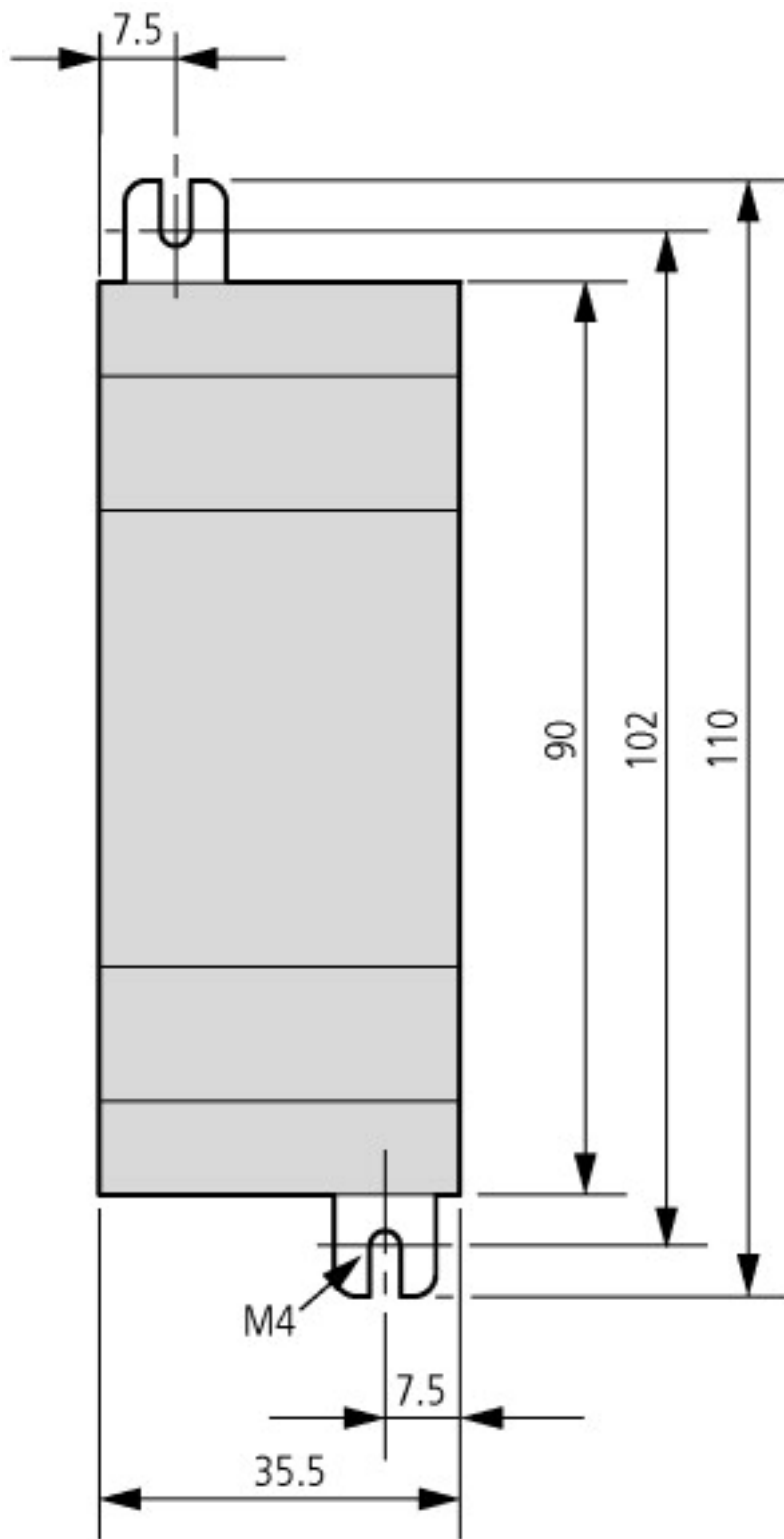
Input current at signal 1	mA	5
Permitted voltage at input	V	17 - 17
Type of voltage (input voltage)		DC
Type of digital output		Relay
Output current	A	0
Permitted voltage at output	V	250 - 250
Type of output voltage		AC/DC
Short-circuit protection, outputs available		No
Number of HW-interfaces industrial Ethernet		0
Number of HW-interfaces PROFINET		0
Number of HW-interfaces RS-232		0
Number of HW-interfaces RS-422		0
Number of HW-interfaces RS-485		0
Number of HW-interfaces serial TTY		0
Number of HW-interfaces parallel		0
Number of HW-interfaces Wireless		0
Number of HW-interfaces other		2
With optical interface		No
Supporting protocol for TCP/IP		No
Supporting protocol for PROFIBUS		No
Supporting protocol for CAN		No
Supporting protocol for INTERBUS		No
Supporting protocol for ASI		No
Supporting protocol for KNX		No
Supporting protocol for MODBUS		No
Supporting protocol for Data-Highway		No
Supporting protocol for DeviceNet		No
Supporting protocol for SUCONET		No
Supporting protocol for LON		No
Supporting protocol for PROFINET IO		No
Supporting protocol for PROFINET CBA		No
Supporting protocol for SERCOS		No
Supporting protocol for Foundation Fieldbus		No
Supporting protocol for EtherNet/IP		No
Supporting protocol for AS-Interface Safety at Work		No
Supporting protocol for DeviceNet Safety		No
Supporting protocol for INTERBUS-Safety		No
Supporting protocol for PROFIsafe		No
Supporting protocol for SafetyBUS p		No
Supporting protocol for other bus systems		Yes
Radio standard Bluetooth		No
Radio standard WLAN 802.11		No
Radio standard GPRS		No
Radio standard GSM		No
Radio standard UMTS		No
IO link master		No
System accessory		Yes
Degree of protection (IP)		IP20
Type of electric connection		Screw connection
Time delay at signal exchange	ms	0 - 0
Fieldbus connection over separate bus coupler possible		Yes
Rail mounting possible		Yes
Wall mounting/direct mounting		Yes
Front build in possible		No
Rack-assembly possible		No

Suitable for safety functions			No
Category according to EN 954-1			1
SIL according to IEC 61508			None
Performance level acc. to EN ISO 13849-1			None
Appendant operation agent (Ex ia)			No
Appendant operation agent (Ex ib)			No
Explosion safety category for gas			None
Explosion safety category for dust			None
Width		mm	35.5
Height		mm	90
Depth		mm	74

Approvals

Product Standards			IEC/EN 60947-4-1; UL 508; CSA-C22.2 No. 14-05; CE marking
UL File No.			E29184
UL Category Control No.			NKCR
CSA File No.			012528
CSA Class No.			2252-01
North America Certification			UL listed, CSA certified

Dimensions



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