



D1-30

Digital module with 12 input and 10 output isolated channels

The D1-30 module provides 12 input and 10 output digital channels; all I/O channels are optically isolated and have a status signalling led; input channels are 24 V active type; output channels are 24 V PNP transistor type; output status is controlled through the serial communication link; an internal watch-dog circuit ensures a non-stop operation; interface type (RS422 or RS485), communication protocol (Modbus ASCII or RTU) and address (from 1 to 15) can be set through microswitches; the module is suited for mounting on a DIN rail.

GENERAL SPECIFICATIONS

Power supply	From 18 to 36 Vdc, 80 mA @ 24 Vdc
Power supply protections	Against polarity inversion
Operating environment	Temperature: from 0 to 70 °C, relative humidity: from 25 to 85 % (non condensing)
Operating atmosphere	Without corrosive gas
Storage temperature	From -20 to 80 °C (without ice)
Electromagnetic compatibility <input type="checkbox"/>	<ul style="list-style-type: none"> • Radio frequency emissions: EN55011 Group 1 Class A • Conducted emissions: EN55011 Group 1 Class A • Radio frequency immunity: ENV50140 10 V/m AM from 80 to 1000 MHz • Conducted immunity: ENV50141 10V/m AM from 0.15 to 80 MHz
IP grade	Connectors: IP20, enclosure: IP20
Insulation	Between digital I/O and 485/422 section: 500 V
Signalling leds	Power on, self-test, inputs and outputs status, serial tx, serial rx
Mounting mode	DIN EN50022 rail
Dimensions	150L x 110H x 60P mm
Weight	350 g
Ordering code	D1-30

DIGITAL INPUTS SPECIFICATIONS

Input type	12 inputs, optoisolated, common positive (power supply voltage)
Voltage levels	Active status: from 15 to 36 V, non active status: from 0 to 4 V
Current sinked	10 mA @ 24 V
Detectable pulse duration	Not less than 100 ms

DIGITAL OUTPUTS SPECIFICATIONS

Output type	10 outputs PNP transistor open collector, pull-down resistor: 22 kΩ to ground
Output voltage when active	The voltage supply
Maximum load current	100 mA each output
Protections	Suppression diode

COMMUNICATION INTERFACE SPECIFICATIONS

Communication interface	EIA RS485 or RS422 (selectable by jumper)
Communication speed	9600 or 19200 baud
Communication protocol	Modbus ASCII or Modbus RTU (selectable by dip-switches)
Device address	From 1 to 15 (selectable by dip-switches)
485/422 lines protections	Against surge

FUNCTIONAL SPECIFICATIONS

Watch-dog	Hardware
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