

# Z-D-IN

## 5 DIGITAL INPUTS MODULE / RS485

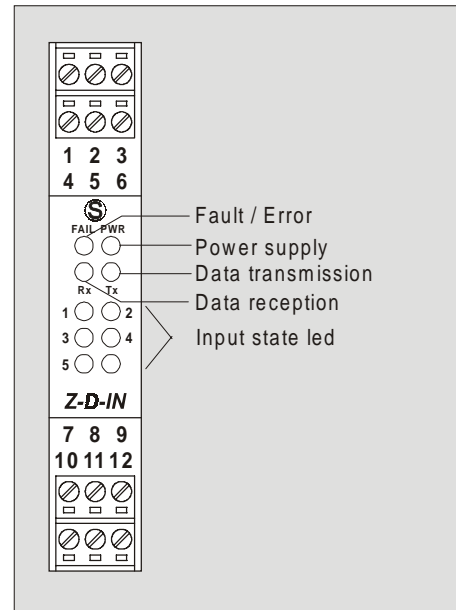
Used for interfacing 5 digital signals for contact with all of the control systems which are able to communicate with the transmission protocol MODBUS RTU through the RS485 serial interface.

The system comprises 5 opto-isolated digital inputs with negative in common and self-powered at 24 Vcc and are protected by fast transient TVS of 600 W/ms suppressors.

A 16 bit counter is present for each input, the maximum input frequency is 100 Hz and it is possible to set one input as a fast counter with a maximum frequency of 10kHz. Furthermore, it is possible to insert an anti-rebound filter which is settable from 5 to 250 ms.

The wiring of the power supply and serial bus is facilitated by the use of a support bus that can be lodged within the DIN guide. Such a system also allows for hot swapping, that is, the insertion and extraction of the module from the bus without the interruption of the communication nor the power supply to the remaining part of the system.

Frontal signalling LEDs for: presence of power supply, anomaly, state of the 5 inputs, reception/transmission of data.



### TECHNICAL DATA

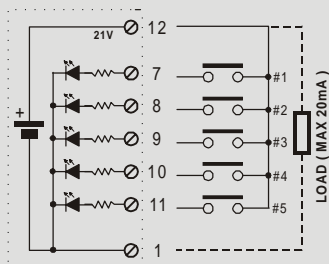
- Power supply : 19 - 40 Vcc / 19 - 28 Vca - 50/60 Hz, power consumption max. 2,5W
- Input galvanised separation / the remaining circuits are at low voltage : 1500 Vac
- Interface : serial RS485 2 wire with settable velocity : 4800, 9600, 19200, 38400, 57600 baud
- Communication protocol : MODBUS RTU
- Communication time : < 10 ms (@ 38400 baud)
- Connection distance : up to 1200 m
- Inputs : 5 opto-isolated type inputs for REED, PROXIMITY PNP, NPN, clean contact, etc..
- Input protections : by means of transient TVS suppressors of 600 W/ms
- For further information make reference to page 2.

**POWER SUPPLY**

- 2 19 + 28 V~
- 3 19 + 40 V=

Power voltage must be in a range from 19 to 40 Vdc (indifferent polarity), from 19 to 28 Vac. **Upper limits must be exceeded, if it happen there could be damage for module.** It is necessary to protect power source from possible module's failure by fuse correctly dimensioned.

**INPUTS**



**SERIAL INTERFACE**

- RS 485
- 4 GND
  - 5 B (-)
  - 6 A (+)

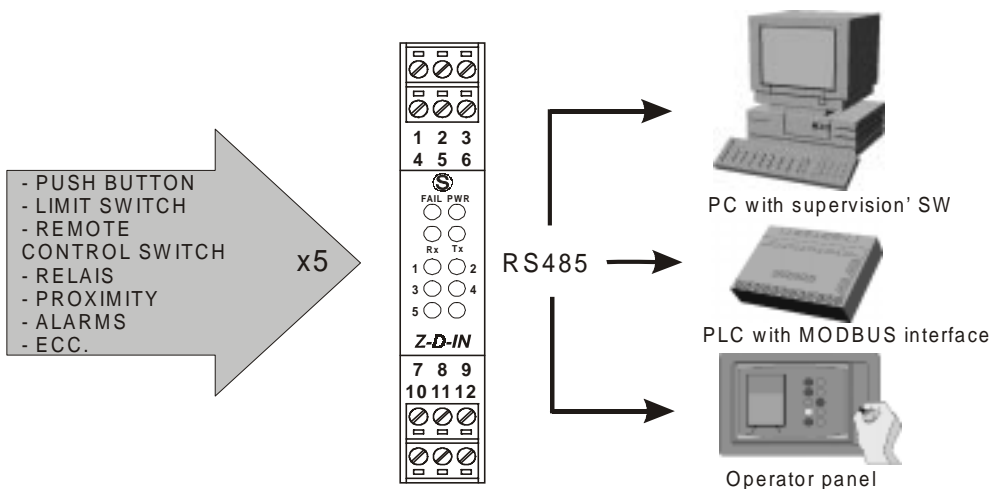
**BUS SUPPORT DIN TYPE**

The connection, for serial interface and feed of the module, is also situated on the connector on the instrument bottom. This connector allows the connectin by bus through the support that must be installed in the DIN guide.

**PROGRAMMING**

All of the settings of the module, such as the type of input, setting of the digital filters, velocity of the serial interface, address of the module, etc. can be configured by means of the appropriate Z-PROG software.

**EXAMPLES**



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