

Z-5DI-2DO

7-CH, 5 DIGITAL INPUTS, 2 DIGITAL OUTPUTS MODULE, RS485 – MODBUS RTU

Highlights

- **Nr.5 isolated inputs from power supply (1.5 kV) and outputs (3.75 kV)**
- **Nr.5 totalizers @ 32bit, max freq. 5 kHz, stored in non volatile memory FeRAM**
- **Nr.2 relay digital outputs, 2 A, 250 Vac**
- **Slave I/O managed by Master ModBUS**
- **ModBUS RTU communication protocol through RS485 serial interface**
- **Easy wiring through bus that can be housed in DIN guide**
- **Programming through USB port and EASY SETUP software**
- **Hot swapping**

Z-5DI-2DO is a mixed digital module with Micro USB front port of programming, 5 digital inputs (Redd, Proximity, PNP, NPN, contact) selectable via software, nr.5 totalizers @ 32bit with maximum frequency 5 kHz and settable forwards or backwards, nr.2 SPST relay outputs 2 A 250 Vac NO / NC type selectable via jumper. All totalizers are stored in non-volatile memory (FeRAM).

For each input the module offers the measure of period, frequency, TON, TOFF. The module has 1.500 Vac isolation between input and remaining low voltage circuits and 3.000 Vac between outputs and the remaining low voltage circuits. The instrument stands out for its wide range operating temperature (-20 .. + 65° C) and configuration flexibility. Z-5DI-2DO supports RS485 serial communication with ModBUS RTU protocol, up to 64 nodes without repeater up to 115 kbps. The power supply wiring and serial connection is facilitated through a bus that can be housed in the IEC EN 60715 guide.

Modbus



 **SENECA**
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Z-5DI-2DO



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TECHNICAL DATA

GENERAL DATA

Power supply	10..40 Vdc or 19..28 Vac @50-60 Hz
Power consumption	3,5 W
Power input	Internal / External
Isolation	1.500 Vac inputs // other circuits 3.000 Vac outputs // other circuits
LED Status indicators	Power supply (green) Error (yellow) Data transmission (red) Data receiving (red) Input status (5 green leds) Output status (2 red leds)
Protection degree	IP20
Installation category	II - 300 V
Pollution degree	2
Operating temperature	-20..+65°C
Storage temperature	-20..+85°C
Humidity	30..90% (non condensing)
Dimension (wxhxd)	17,5 x 100 x 111 mm
Weight	Approx 140 g
Case	PA6, black
Connection	Screw removable terminals for conductors up to 2,5 mm ² IDC10 rear connector Nr.1 Micro USB (programming) non isolated front port
Mounting	35 mm rail IEC EN 60715
Hot swapping	Yes
Data memory	EEPROM for configuration parameters, 10 years retention time, Nr.5 registers@16 bit, Nr.5 bit overflow
Totalizers memory	FeRAM, 45 years retention time

COMMUNICATION

Interface	RS485 2 wires
Data rate	Up to 15.20 bps
Protocols	ModBUS RTU slave
Communication time	< 10 ms (@ 38400 bps)
Max distance	Up to 1.200 m
Connectivity	Max 64 nodes without repeater

INPUT DATA

Nr. Channels	5 (settable PNP or NPN) optoisolated with common
Type	Reed, contact, proximity, PNP, NPN; freq. max 5 kHz; power consumption 3,5 mA @ 10 V; 10 mA @24V; transaction level OFF<6V, ON>9V (max 24V); input voltage supply 16 V ±10%
Totalizers	Nr.5 totalizers @32bit, backup on FeRAM
Measure type	Period, frequency, Ton, Toff for each digital input

OUTPUT DATA

Nr. Channels	2 (settable by jumper)
Type	SPST NO/NC relay with common, 2 A (AC1) 250 Vac; relay response time 5/2 ms

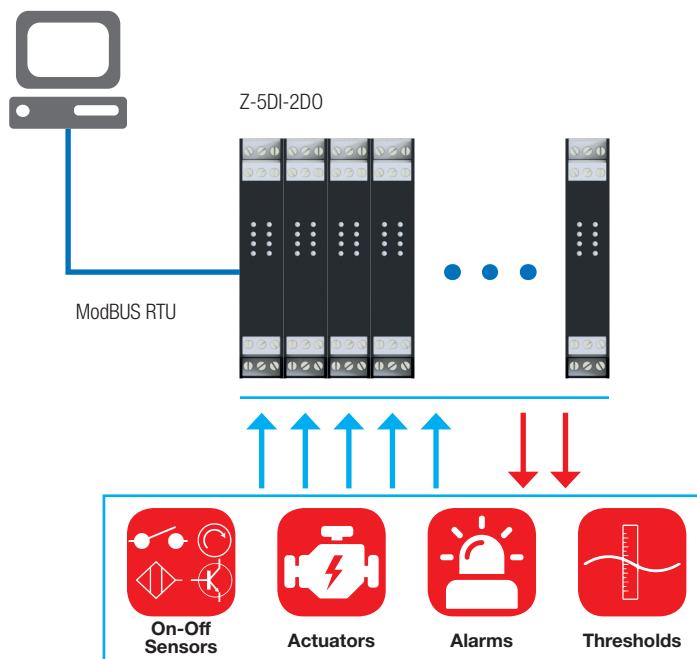
PROGRAMMING

Software	EASY SETUP: project, test, input, output, datalogger configuration
Datalogging	By EASY SETUP, min sample time 1s, file .csv
DIP Switch	Yes (serial communication, input type)
Jumper	Yes, NO/NC relay outputs
Driver	USB virtual COM port driver for Windows

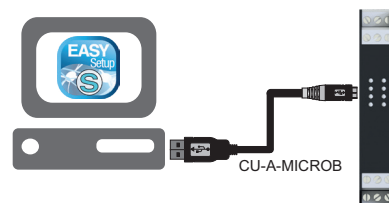
STANDARD

Approvals	CE
Norms	EN 61000-6-4, EN 61000-6-2, EN 61010-1

APPLICATION EXAMPLE



CONFIGURATION SCHEME BY PC



ORDER CODES

Code	Description
Z-5DI-2DO	7-CH 5 Digital Inputs / 2 Digital Outputs, RS485 ModBUS RTU module
SOFTWARE	
EASY SETUP	SENECA programmable devices configuration suite
ACCESSORIES	
CU-A-MICROB	USB-A Micro USB-B 5 P plug cable
Z-PC-DIN2-17.5	DIN rail bus system 2 slots 17.5 mm
Z-PC-DIN8-17.5	DIN rail bus system 8 slot 17.5 mm
Z-PC-DINAL2-17.5	DIN rail bus system head terminal + 2 slots 17.5 mm
Z-SUPPLY	Single-phase switching power supply 24V @ 1.5A

Technical data, diagrams and drawings in this document are indicative only and not binding.



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