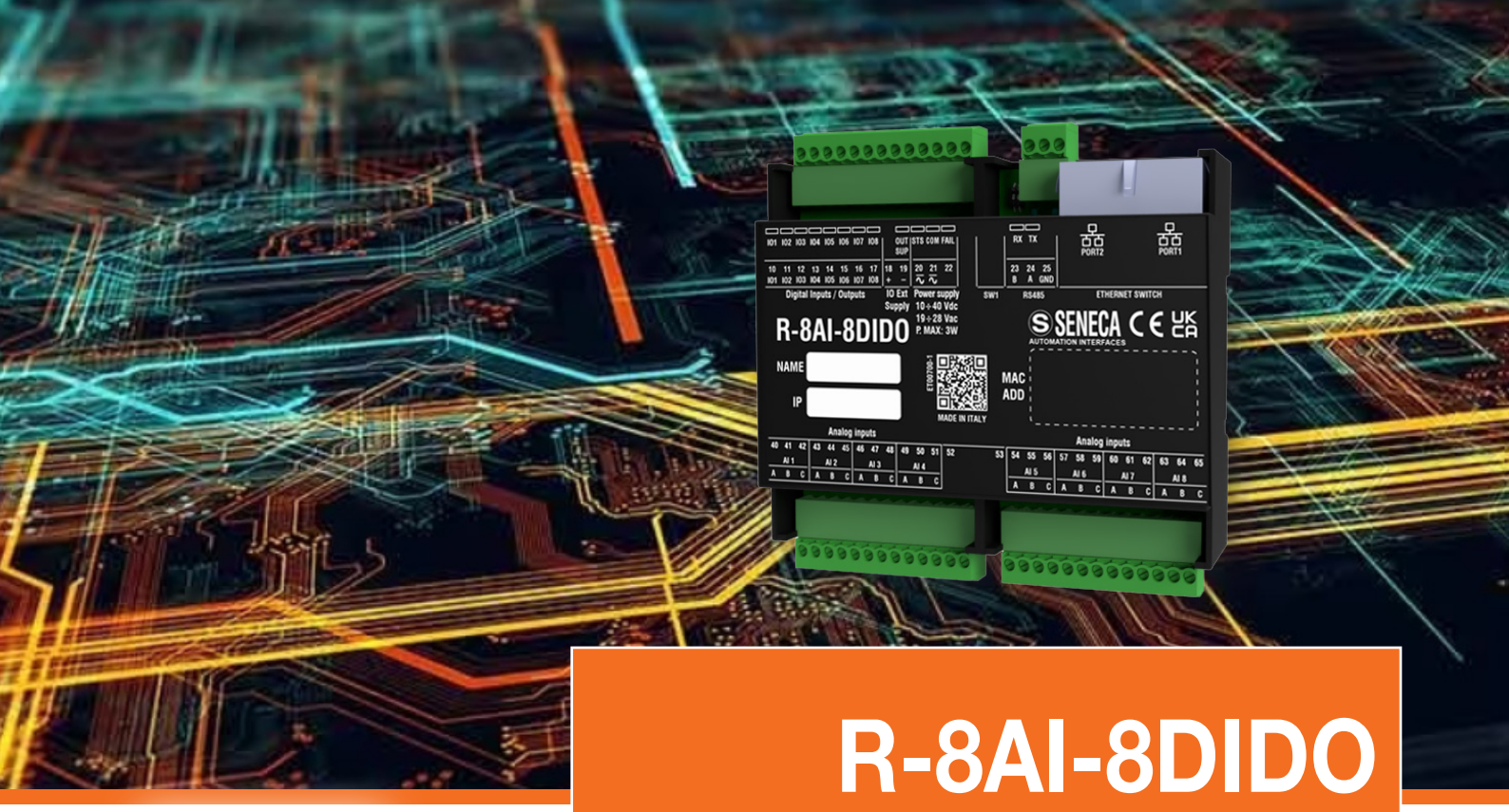


R-8AI-8DIDO

8-CH UNIVERSAL ANALOG INPUTS AND 8-CH DIGITAL I/O's MODBUS RTU/MODBUS TCP-IP MODULE

Highlights

- **Power supply: 10..40 Vdc; 19..28 Vac**
- **Max isolation: 1.5 kVac**
- **Universal analog input: Nr.8 channels mA, V, mV, TC J, K, T, E, N, R, S, B, L, Pt100 / Cold junction (1 channel)**
- **Digital Inputs/Outputs: No.8 channels PNP, Mosfet, Peer-to-Peer**
- **ADC: 24 bit**
- **Update time: 25 ms per channel**
- **Communication protocols: ModBUS RTU, ModBUS TCP-IP**
- **Integrated networking functions: Daisy Chain, Fault-By-Pass, Pass-Through**
- **Configuration: DIP Switch, Web Server**

The R-8AI-8DIDO is a mixed data acquisition module (analog/digital) from the R Series, designed for flexible wiring needs, compact installation spaces (only 32 mm thick), and high-density I/O applications. The module can handle up to 8 measurement channels for analog signals (mA, V, mV) or temperature sensors (8 thermocouples, 1 Pt100). It also provides 8 PNP/Mosfet digital channels, configurable as inputs or outputs.

The instrument features 5-way isolation up to 1.5 kV. It supports both Modbus TCP-IP communication with dual 100 Mbps Ethernet interfaces and serial RS485 communication with Modbus RTU protocol, accommodating up to 64 nodes without a repeater and a maximum speed of 115 kbps. Configuration of the R-8AI-8DIO-2 can be done through DiP Switch and a Web Server.

Equipped with a high-resolution 24-bit ADC, the module offers a precision class of 0.1%. The update time is 25 ms per single channel. R-8AI-8DIDO supports all advanced networking features of the R Series: daisy chain (Ethernet chain connection), fault-bypass (active communication even in case of failure), passthrough (ModBUS gateway functionality), peer-to-peer (remote replication of digital signals).

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R-8AI-8DIDO

MIXED I/O MODULE

R-8AI-8DIDO



8-CH universal analog inputs, 8-CH digital inputs/outputs (2xETH) Modbus TCP-IP / Modbus RTU module

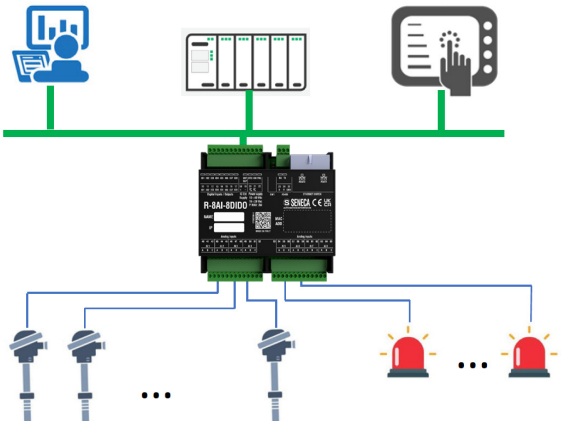
GENERAL DATA	
Powe supply	10..40 Vdc; 19..28 Vac
Power consumption	3 W max
Status LED indicators	Power supply Inputs / Outputs status STS (IP address / DHCP) IP powered / assigned RX / TX (RS485 data reception / transmission) Ethernet TRF / LNK (packet traffic / Ethernet link status)
Isolation	1.500 Vac (3 ways)
Protection degree	IP20
Operating temperature	-25…+65°C
Storage temperature	-30…+85°C
Connections	Removable 3-way screw terminals, 3.5 mm pitch RJ45 connectors
Dimension (wxhxd)	106 x 90 x 32 mm
Weight	170 g
Housing	PC/ABS self-extinguish UL94-V0 RAL 7035 grey color
Programming	DIP switch Web server
Special features	Dual Ethernet Daisy Chain LAN fault bypass (dual Ethernet) up to 32 Peer-to-Peer rules (I/O Mirror) Modbus Passthrough (TCP-IP to RS485)
Certifications	CE, UKCA
Installation	DIN rail mounting (IEC EN 60715), wall / panel mounting
COMMUNICATION	
Ethernet ports	Nr. 2 Ethernet ports (with LAN fault-bypass function), 100Base-T on RJ45
Serial ports	Nr.1 RS485 port on M23–M24–M25 terminals
Speed	Up to 115.200 bps (RS485) / 100 Mbps (TCP-IP)
Supported protocols	ModBUS RTU ModBUS TCP-IP http
ANALOG INPUTS	
Channels	8
Type and range	V (±30 V) mV (± 150 mV) mA (± 24 mA) TC: J, K, T, E, N, R, S, B, L Pt100 / cold joint - input 1 (-200..+650°C)
ADC	24 bit
Update time	25 ms per channel
Thermal drift	50 ppm
Accuracy	0,1% f.s (0,1°C Pt100)
DIGITAL CHANNELS	
Channels	Nr.8 individually configurable I/O channels
Type and range	Input: ON/OFF: > 9 V; < 4 V; Vmax: 28 V Output: MOSFET, PNP; voltage / current max.: 0,2 A / 28 V

ORDER CODES

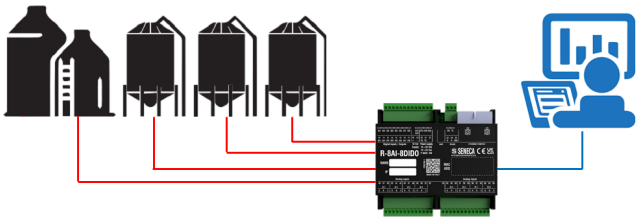
Codes	Description
MIXED I/O MODULE	
R-8AI-8DIDO-2	8-CH universal analog inputs, 8-CH digital inputs/outputs (2xETH) Modbus TCP-IP / Modbus RTU module
ACCESSORIES	
CE-RJ45-RJ45-R	Ethernet cable (RJ45 / RJ45)

APPLICATION EXAMPLES

TEMPERATURE CONTROL



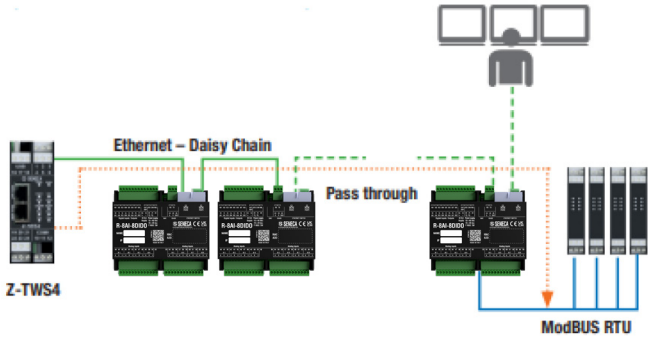
ACQUISITION OF PROCESS MEASURES



SPECIAL FEATURES

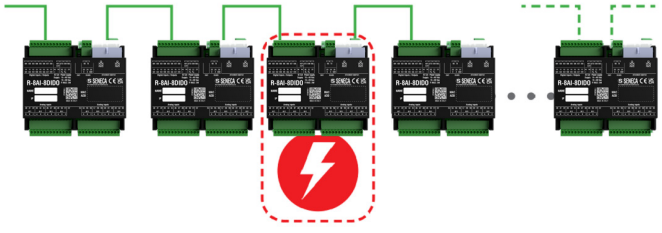
DAISY-CHAIN CONNECTION

REDUCED WIRING, MINIMUM INFRASTRUCTURE COSTS AND INSTALLATION FLEXIBILITY



FAULT BYPASS

MAINTAINING THE ETHERNET CHAIN CONNECTION EVEN IN THE EVENT OF A MODULE FAILURE



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