

TELEM-AI12-T analog input RTU module



The TELEM family RTU module TELEM-AI12-T with 12 analog differential analog inputs is used for measure 12 analogue values. Module bases on 32-bit ARM CPU. Interfaces to other equipment are RS-232 and RS-422/485. Data exchange protocol is IEC 60870-5-1-101.

Features

- 12 bit ADC resolution
- ADC self calibration
- Configuration/parameter setting with IEC protocol at the same line with data communication
- Daisy-chain master-slave connection for up to 15 modules using RS-422/485 interface
- Onboard knife disconnectors for inputs
- PT100, PT1000 and other sensors connections via external converters.

Technical data

Number of differential analog inputs	12
User configurable input ranges	+/-5 mA, +/-10mA, +/-20 mA, 4...20mA for every input separately
Form of transferred measurements	Normalized Int16
Measurement accuracy	0,1 % (automatically scaled)
Resolution	12 bit
Acquisition time	100 ms per channel
Input circuit galvanic isolation from earth, power and communication circuits	Yes
Analogue input circuit DC impedance	Current input 56 Ohms

Installation, terminals and environment

Weight	310 g
Mounting	DIN 35
Dimensions (WxHxD)	160 x 125 x 60
Terminals for signal	MVSTBWA 2,5/4-ST
Terminal for power	MVSTBWA 2,5/4-ST
Terminal for communication	RJ4/4 (RS232); RJ12 (RS422)
Over voltage protection	IEC-60255-4, 2,5 kV pulse protection IEC-60255-5, 2 kV DC on
Disturbance	IEC-61000-3-2, 61000-6-2, 6100-6-4
Ambient temperature in operation	-30...+70°C
Indication	1 for running indication, 1 for alert indication
Built in real time clock with backup capacitor	Yes

Power requirements

Supply voltage	20...72 (12...32 optional) V DC, 1 W
----------------	--------------------------------------

Configuration

Configuration of TELEM-AI12-T is configured using **TELEM-GWS** software. All 12 analog inputs are configured independently.

Communication ports configurable parameters and general settings

Link and ASDU address for IEC 60870-5-101	1...15 by DIP switches
Communication speed	200...38400 bps
Parity	None, Even, Odd
Object's base address	0...65500

Configuration parameters for analog inputs

In use	Yes/No
Input signal range	0...5; 0...10; 0...20 +/-5 mA +/-5; +/-10; +/-20; 4...20 mA
Filtration coefficient determines the averaging time	1...65535 ms
Zero zone If the value is in this range around the zero, it is transferred as zero	0,01...100 %, default 0,5 %
Dead Band 1 for events without time tag	0,01...100 %, default 2 %
Min. interval for events	1...65535 ms
Time interval for periodical time tagged values	1...65535 sec