



Universal Measurement Module E304

Universal measurement module E304 is a microprocessor and A/D converters based unit for digital measurement and storing of analogue voltage, current, resistance and temperature. It can be used for telemetric purposes in harsh environmental conditions like those in lighthouses and other aids to navigation

E304 consists of:

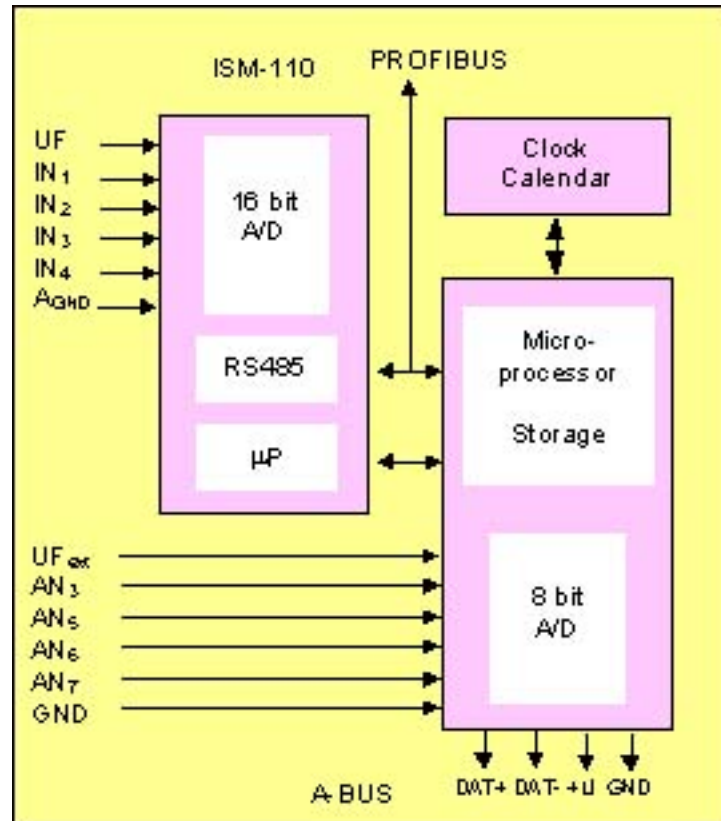
- one or two 16-bit 4-channel A/D converters ISM-110/111 (E304 and E304.1 accordingly)
- clock/calendar
- microprocessor
- 8-bit A/D converter
- RS485-based A-BUS and PROFIBUS for data exchange and diagnostics

Features

- periodical measurement of ISM-110 analogue input signals $IN_1 \dots IN_4$ and storing of digital measurement data. The period is to be specified by the customer (from 1 min up to 4 hours)

- scheduled switching ON of the converter(s) ISM-110 for 5...10sec for performing measurements and filtering of measured values

- storing of last 1024 measured values from each ISM-110/111 input channel
- daily calculating of minimum, average, and maximum values for each ISM-110 input signal over last 9 days
- periodical measurement of analogue input signals AN_3, AN_5, AN_6, AN_7 with 1-minute period and storing of last measured values (E304 only)
- sending emergency messages over A-BUS in case of falling of the voltage on ISM-110 below the emergency level
- elaboration and storing of statistical data about the quality of communications in A-BUS local area network and PROFIBUS



Specification

Input voltage	11 – 20V DC
Current consumption in stand-by mode in measuring mode	1.5mA 1.5W (E304); 3W max (E304.1)
Programmable measurement range of analogue input signals on IN₁...IN₄ voltage current resistance temperature with resolution	up to ±10V max up to 25mA max up to 20 kW max -200°C ...+800°C 16 bits
Voltage range on analogue inputs AN₃, AN₅, AN₆, AN₇, with resolution	0...5V 8 bits
Stability of the built-in clock	±50ppm
Data rate on the A-BUS	9600bps
Temperature range	-20°C to +60°C (IEC 68-2-1,2,14)
Relative humidity	max. 98%, at the temperature +35°C (IEC 68-2-3)
Dimensions	130x127x206mm
Weight	

E304-20012302