

WDT11 – programmable amplifier for force sensors

with 0-10V/4-20mA output, USB and RS485 MODBUS

Description:

WDT11 is universal amplifier for force sensors. It enables processing of sensor signals into current signal 4-20mA (or voltage signal 0-10 V) and digital (RS485).

Build-in RS485 interface with MODBUS protocol allows direct communication one or several modules with PLC or HMI. It is possible to connect up to 32 modules on single bus.

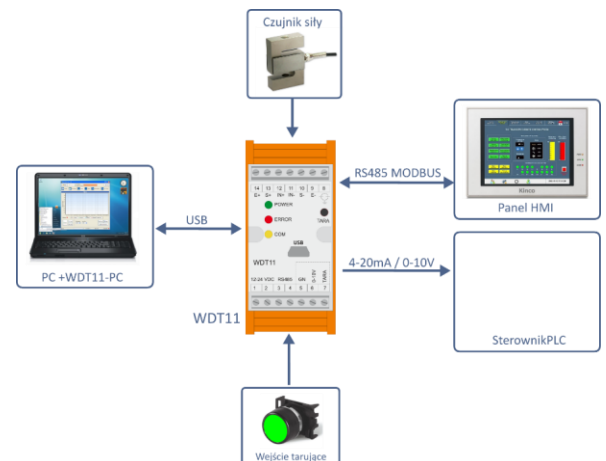
Module configuration is made via USB connector and special software, which allows preview of measuring values and device settings.

Features:

- Signal measurement from any force sensor (4 or 6 wire)
- Result conversion into selected units
- Configurable sampling frequency and signal filtering
- Analog output (0)4-20mA (or 0-10V)
- RS485 interface with MODBUS protocol
- The USB connector for device configuration
- Build-in button and external connector for tara
- Operation status signalization via LED diodes
- Device power supply 12-24 VDC
- Mounting on DIN rail or by handles

Technical parameters:

Description	Parameter
Power supply	12...24 VDC , < 50mA
Force sensor's input	<u>Sensors power supply</u> : 5V (also 10 V sensors) <u>Max. differential voltage</u> : ±39mV, <u>Resolution</u> : 16 bit <u>Temperature creep</u> : 0,0025%/C° <u>Measurements frequency</u> : max. 123Hz
Output 0-10V (version WDT11-U)	Mode: 0-10V : V min = 0,015V, V max = 10V, load max. 20mA Resolution: ±2mV, Accuracy 10mV (0,1% FS)
Output 0/4-20mA (version WDT11-I)	Mode: (0)4-20mA : I min = 3mA (sensor error) , max = 24mA (range exceeding)/ Resolution: ±0,008 mA, accuracy 0,05mA (0,1% FS)
Output TARA	Low state: 0V (max. 1V), high state: +24V (5...24V) Min. Pulse length >100ms,
Communication	RS485 MODBUS-RTU USB : 1.1, 2.0
Temperature operating range	5..50° C
Protection degree	IP20



Example of WDT11 connection possibilities.

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