MD150T – Digital processing unit with display for force sensors without amplifiers with USB and RS485 interfaces

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Description:

MD150T is an universal processing display indented to measurement signals from load cell force sensors. Built-in analog-digital transducer allows for measurement with resolution up to **0,001%***. The measurement result is presented on six position display.

MD150T has **2 relay outputs**, **0-10 V** output and tare input. Built-in operating modes enable the device to be used for dosing without any need for additionally controllers.

MD150T is also equipped with **USB** and **RS485 MODBUS** interfaces. USB interface allows fast configuration and recording measurement data in PC (e.g. to Excel file) with the use of MD150-PC software. MODBUS-RTU allows for reading of measurements from several indicators at the same time to PLC controller, HMI panel or its own PC application.
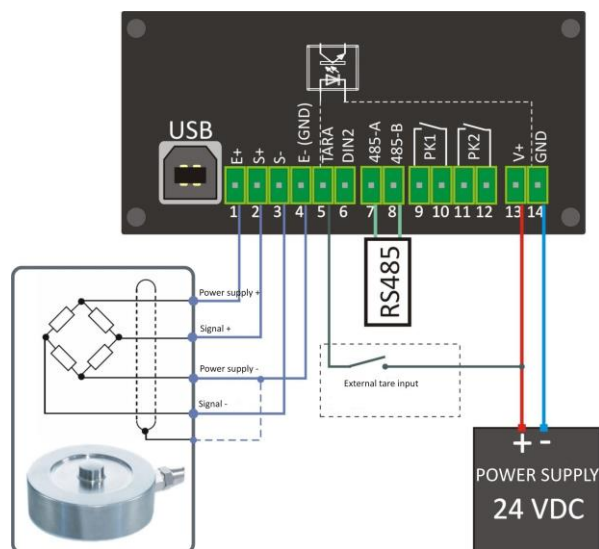
Features:

- Result conversion to N, kN, g ,kg, T, Funt,
- Digital filtering and average of measurements,
- Changes of status of relay outputs based on set thresholds.
- Memory of minimal and maximal value,
- External tare input,
- Cooperation with MD150T-PC software (communication by USB) for configuration and visualization of measurements,
- RS485 MODBUS-RTU interface,
- Robust, aluminum housing.

*Real measurement accuracy is limited by force sensor parameters

Example of MD150T external connections.

Technical specification:

Description	Parameter
Power supply	12 … 36 VDC, 250 mA
Sensor input	±39 mV, supply 5 V
Pomiary	Resolution: 0,001% FS, Temperature error: 0,0025%/C° Measurement frequency: 80 Hz
Relay outputs	2 x **1 A/125 VAC**, **2 A/30 VDC**
0-10 V output	Resolution 2,5 mV
Inputs	2 x optically isolated 3…24 V
Communication	RS485 MODBUS-RTU**,** default parameters 57600bps, 8:n:1, **USB: 1.1, 2.0**
Operating temperature range	0..50º C
Display	6 digits, height 13.5 mm
Weight	200 g
IP class	IP40, IP65 for front panel