



Vibration meter IK-9-TK is designed for measurement of vibration velocity RMS value of turbine's rotor shafting in three dimensions on the x-, y- and z- axes that complies with the requirements of GOST 25364-97.

Indication of measured three vibration components on bar graph indicators labelled with vibration rate in accordance with GOST 25364-97.

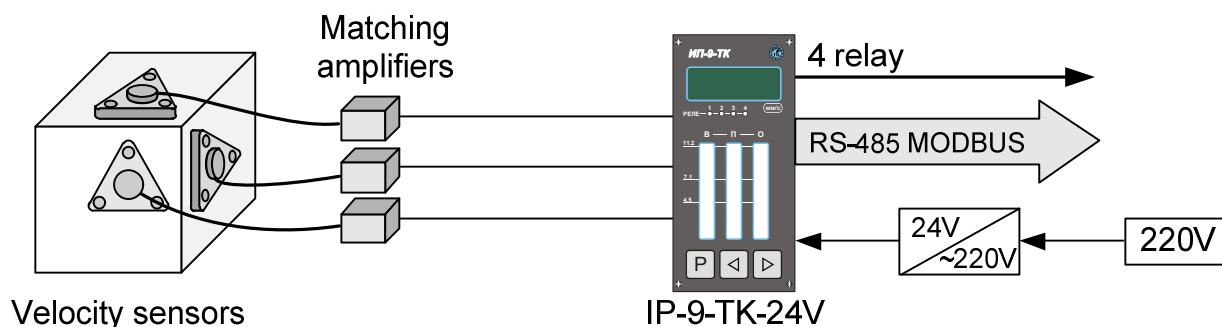
- Indication of measured values in mm/s on digit display
- Signaling about a sudden or smooth vibration variation from any entry level for the specified value and about achieving a two specified levels of vibration.
- Provides supply voltage for sensors.
- RS-485 interface, Modbus (RTU) protocol.
- Four-digit green LED display with 14 mm symbol height.

CONSIST

Vibration meter IK-9-TK consists of:

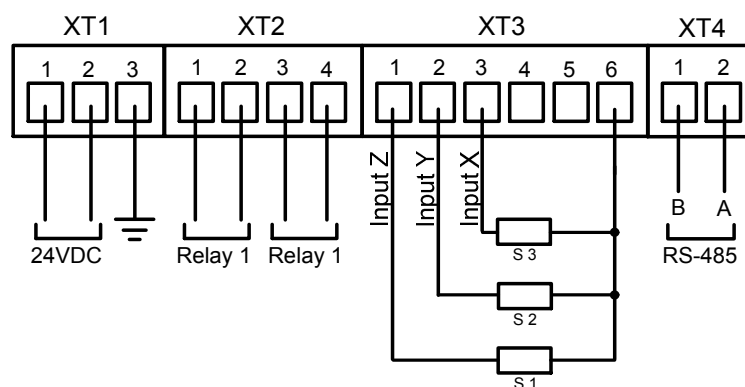
- digital measuring device IP-9-TK-24V;
- piezoelectric vibration velocity transducers (one per each measurement direction).

TURBINE VIBRATION CONTROL EXAMPLE



SPECIFICATION

- Vibration velocity range, mm/s RMS..... 0,1..30
- Frequency range, Hz..... 10..1000
- Number of measurement channels..... 3
- Current input signal range, mA..... 4..20
- Reduced measurement error (without sensor error), % ±0,5
- Sensor error is determined by used vibration velocity transducer.
- Least significant digit value, mm/s..... 0,01



S 1...S 3 - vibration transducers with 4..20 mA current output

ADDITIONAL INFORMATION

- Operating temperature range:
 - device +5°C ...+50°C
 - piezoelectric vibration transducer -40°C ...+120°C
 - matching amplifier -30°C ...+60°C
- Dust and moisture protection:
 - device IP41
 - vibration transducer..... IP65
- 4 relays, able to switch 30 VDC / 5 A to 125 VDC / 0.3 A circuits with resistive or reactive ($\tau \leq 40$ ms) load and up to 270 VAC / 3 A ($\cos \varphi \geq 0.4$) circuits. 220 VDC / 0.15 A circuits allowed with relay endurance reduced to 10000 operations..
- Power supply voltage (24 $\pm$ 4) VDC
- Power consumption, VA, up to 8
- Overall dimensions, mm:
 - device (W×H×D)..... 74×144×120
 - piezoelectric vibration transducer 51×32×37
 - matching amplifier 94×58×37
- Connectin cable length between transducer and matching amplifier, m, up to..... 10
- Mounting dimensions, mm:
 - cutout size..... 68×137
 - mounting depth, mm..... 140

ORDERING DESIGNATION

Vibration meter **IK-9-TK-X**, where

X – the number of piezoelectric vibration velocity transducers.

*Example. Vibration meter **IK-9-TK-3** – vibration meter with three vibration transducers, measuring RMS value of vibration velocity in three directions.*