

## Digital Tensile Force Indicating Instrument Series KT871-PAX



The KT871-PAX is a high precise digital tensile force programmable indicating instrument.

It is optimal suited for direct connection of Tensometric tensile force sensors:

- with integrated amplifier (Series 3xx and 13xx, service voltage 24V)
- with strain gage measuring bridge (Series 11xx).

The operating mode can be selected by switch.

Big red digits, readable from afar, indicate the measuring results.  
Indicators show the actual working condition.

On the basis of the high solution and interference-stability, application is as well in rough production as in labs and testing departments.

For operation of the strain gage sensors, this instrument supplies the service-voltage.

To work with sensors with strain-gage measuring bridge (Series M 11xx)  
supplies this instrument the service voltage of 5 V.

This instrument amplifies the low output voltage of the measuring-bridge.

To work with the sensors with built-in amplifier (series 13xx or M3xx)

this instrument supplies a service voltage of 24 V.

The analog output signal of the sensor is supplied directly via connector.

### Programming :

Easy programmable and easy to operate by means of the 5 front-panel buttons:

- Calibration of the indication by feeding of value-pairs.
- Calibration of the indication with connected sensors
- Linear-calibration with 16 value-pairs
- Locking the programme-function
- Individual getting-free of some programme-key-functions for the operator  
p.e.: reset the min-max-values
- Zero-setting of the indication ( tare )
- Digital filter for a smooth and exact indication
- Adjusting the min-max-indication. Display as marginal-value or continuous tone, hysteresis
- Adjusting the decimal-point
- external control is individual programmable
  - to reset the min-max storage
  - to reset the alarm-output
  - to \* freeze \* the indication
  - synchronize the indication with the course of production

**Technical Data:**

*Display:* 14 mm high, red LED indication, 5 - digits  
*Solution:* 16 Bit  
*Accuracy:* 0,03%  
*Linearity:* 0,03% of the range

*Protection according To DIN 40050:* IP 30

*Measuring cycle:* max. 20 / s

*Ambient temperature:* operating range : 0°C up to + 50°C, storage-range : -40°C up to +70°C  
*Power supply:* 85 up to 250 VAC, 50 / 60Hz, 15 VA  
*Connection outputs:* via plugs, at the rear of the instrument  
*Connection input:* via plug, at the front of the instrument  
*Housing:* steel sheet, white coated  
*Dimensions DIN:* W 255 mm x H 85 mm x D 164 mm  
*Weight:* approx. 1200 g

*Volume of delivery:* Instrument, output plugs, power cord, instruction manual

**Operating mode:** Tensile Force sensor sensor with strain gage bridge

*Utilization:* Tensile force indicating instrument for strain gage sensors, series ..11xx  
*Input:* 1,5 mV/V  
*Output for bridge-excitation:* 5 V, stable

**Operating mode:** Tensile force sensor with integrated amplifier

*Utilization:* Tensile Force Indicating Instrument for sensors with integrated amplifier series x13xx or 3xx  
*Input:* ± 10V  
*Power supply for sensor:* 24 V, stable

**Optionen:**

Additionally the instrument can be equipped with the offered options.

Each instrument can max. be equipped with one serial interface, one relay- or one open collector output and one analog output.

**Relay – output:** dual setpoint relay 5 A @ 120/230 V AC or 28 V DC Type DS 10  
 ( resistive load), 80 W @ 120 V AC ( inductive load )  
 quad setpoint relay 3 A @ 250 V AC or 30 V DC (resistive load ) Type DS 20  
 80 W @i 120 V AC (inductive load )

**Serial communications:** Half-Duplex, RS232, programmable Type DC 20  
 Multipoint RS 485, programmable Type DC 10  
 Profibus-DP, programmable Type DC 50

**Analog Output:** outputsignal can be selected : 0 ... 20 mA, 4 mA ...20 mA, 0 ... 10 V Type DL 10  
 compliance 500 Ohm load max.; Digital direct reading, resolution 1/3500  
 isolated from all other commons

**Open Collector:** Quad sinking open collector : type four isolated sinking NPN-transistors Type DS 30  
 not isolated from all other commons  
 rating :100 mA max. V<sub>sat</sub>=0,7V, V<sub>max</sub>= 30 V

Quad sourcing open collector : type four isolated sourcing PNP-transistors Type DS 40  
 not isolated from all other commons.  
 rating : internal supply 24 VDC +/-10%, 30 mA max. total all four outputs  
 External supply : 30 V DC, 100 mA max. each output