



# PIEZORESISTIVE FORCE TRANSMITTER

## 2...15 kN

## SERIES FA-23

A double sealing system with piezoresistive pressure measurement cell enables a simple, exact force measurement cell to be realized. The pressure measurement cell used may be calibrated directly in force, taking into consideration the diameter of the piston which transfers the force via a high-viscosity fluid to the pressure measurement cell.

The force transmitters are employed at locations where a force cannot be calculated directly from the fluid pressure and area (e.g. if additionally the tank filling is under pressure).

One of many applications is e.g. the determination of the amount contained in a tank. The accuracy of Series FA-23 is typically 15 litres with a 1500 litres tank.

### Digital Indicators

For digital display of the force in Newton (N), the mass in kilogram (kg) or the weight in kilopond (kp), any display device may be connected.

KELLER has expanded its manometer range by the LEO 4, to which several force measurement cells may be connected and which displays the sum of the forces or weights. The force values are preferably read out via the digital interface.

For taring a tank, the weight may be read out from each individual force measurement cell. If the volume of the tank is known, calibration of the tank content display can also be done on the spot by setting the two points "tank empty" and "tank full" via the entry keys before and after filling.



### SPECIFICATIONS

	Force Ranges (FS)				
	2	5	10	15	kN
FA-23	2	5	10	15	kN
Overload	3	7	15	20	kN
	<b>3-Wire</b>		<b>2-Wire</b>		
Output	0,5...4,5 V@5 V*		4...20 mA		
Supply	4,75...5,25 V		8...28 V		
Linearity (incl. Hysteresis & Repeatability)	0,5 % typ.				
Hysteresis (O-Ring Friction)	< 1 N				
Total Accuracy 0...50 °C	± 1 %FS				
Frequency Band / Measurements per second	1 kHz				
Compensated Temperature Range	0...+50 °C				
Operating Temperature	-25...+80 °C				
Protection	IP 65				
Vibration	20 g (5...2000 Hz, max. amplitude ± 3 mm), acc. to IEC 68-2-6				
Shock	20 g (11 ms)				
CE-Conformity	EN 61000-6-2, EN 61000-6-3, EN 61000-6-4				
Dimensions	Ø 34 mm, height 38 mm				

\*ratiometric to supply

