

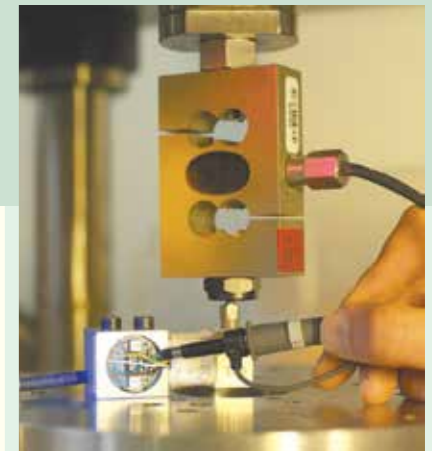


Force

Force sensors for industrial applications

*For more safety
and control!*

www.inelta.de



Inelta has its own test stands for performing calibrations, and laboratories for performing mechanical and environmental tests



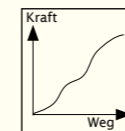
Static & dynamic measurement

Inelta force sensors have been specifically developed for measuring static and dynamic forces in all industrial sectors, ranging from mechanical engineering, automation engineering, laboratory and medical technology to specialist industrial applications. The sealed measuring element (DMS) is protected by a steel or aluminium housing and is thus suitable for use in rough environments. The production models shown in the table (see below) can also be modified to meet individual requirements. Inelta develops, manufactures and calibrates reliable force sensors, which are all supplied with factory certificates.

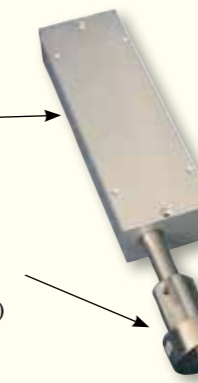
Inelta develops & manufactures both standard and special design force sensors

- • • ➤ **Features:**
- Measuring ranges from 0.1 to 200 kN (500 kN)
 - Pressure and tension measurements
 - Robust structure, including for miniature models
 - Integrated or external sensor signal amplifier
 - High breaking strength range
 - Critical load limit of up to 200% F.S.
 - Robust steel or aluminium housing
 - Expanded temperature range -40 .. 120°C

• • • ➤ **Sample Application:**



Actuator (LiSA)*



Force sensor (KMM 20)

Actuator with force + displacement sensor.

The linear actuator (LiSA)*, which features an integrated displacement sensor and specially adapted force sensor, is used to establish the force-displacement diagram on a test stand for vehicle steering wheels.

* More information to LiSA: www.inelta.de



• • • ➤ **Areas of application:**

- Suitable for performing force measurements in all industrial sectors related to mechanical engineering, automation technology, laboratory and medical technology ...
- Weighing facilities and materials handling technology, measurements on sports and similar equipment
- Test equipment for sample taking in production
- Establishment of pretension and surface pressure for handling devices
- Detection devices, forming dies, extruding, stamping
- Suitable for use as a set point adjuster
- Can be integrated in linear actuators

Powerful products ...

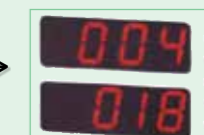
• • • ➤ **Inelta system solutions:**



Inelta force sensors are available both from stock and as special designs



Inelta sensor signal amplifiers can be used with PLCs or PCs



Analyses can be displayed using digital displays



Overview Series Technical Data											
Force direction:	↕	↕	↕	↕	↕	↕	↕	↕	↕	↕	↕
Output signal:	□	□	□	□	□	□	□	□	□	□	□
Type	KMM 20	KMM 30	KMM 50	KMT 55 KMM 55	KMM 60	FS 05	FS 10 FT 10	FS 12	FS 19 FT 19	FS 50 FT 50	FS 60 FT 60
Force [kN]	0,1 .. 5	0,1 .. 5	1 .. 200	1 .. 200	0,1 .. 5	1 .. 10	0,5 .. 10	0,1 .. 0,5	0,5 .. 10	0,5 .. 200	0,5 .. 200
Sensitivity norm. [mV/V]	1,0 1,5	1,0 1,5	1,5	2,0 0 .. 10 0/4 .. 20	1,5	2,0	2,0 0 .. 10 0/4 .. 20	2,0 1,5	2,0	2,0 FT50 -/-	2,0 FT50 -/-
Linearity tolerance [% F.S.]	0,1	0,1	0,1	0,1	0,15	0,05	0,05	0,25	0,05	0,05	0,05
Temperature coefficient [% F.S./K]	0,01	0,01	0,01	0,01	0,015	0,005	0,005	0,005	0,005	0,005 0,015	0,005 0,015
Housing class [IP]	54	54	54	54	54	65	64	65	64	64	64
Material	Alu-Alloy./ Steel	Alu-Alloy./ Steel	Steel nickel-plated	Steel nickel-plated	Steel	Steel nickel-plated	Alu-Alloy./ Steel	Steel nickel-plated	Alu-Alloy./ Steel	Steel	Steel
Temperature Range [°C]	0 .. +60	0 .. +60	0 .. +60	0 .. +60	0 .. +60	0 .. +70	0 .. +60	0 .. +60	0 .. +60	0 .. +60	0 .. +60

• • • ➤ **Sensor signal amplifier**

For LVDT-sensors, Force-sensors and potentiometric-sensors.
Output signals e.g. 0 .. 10 V oder 0/4 .. 20 mA.



Our brochure for sensor signal amplifier „IMA2“.



„IMA2“
DIN Rail mounting
80 x 85 x 22,5 mm



„Modul“
For circuit board
40 x 30 x 15 mm



„IVM“
Miniature for circuit board
21 x 21 x 9 mm



Inelta Sensor Systems develops and manufactures high-quality, cutting-edge sensors and systems

Productrange:

- Displacement sensors „LVDT“
- Motorized potentiometer „MoPo“
- Transducer „IMA2“
- Actuator „LiSA“



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