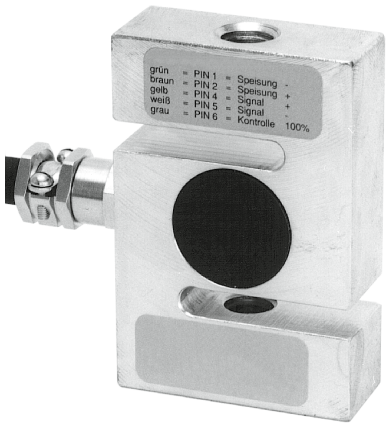
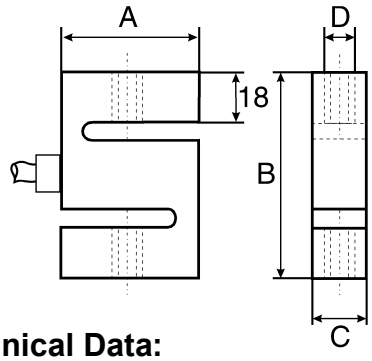
Tension and Compression Sensor K25

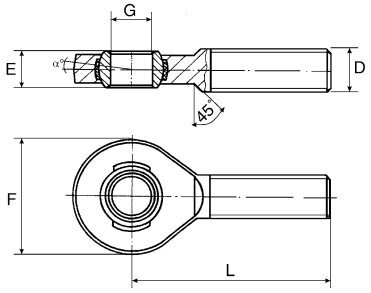




- Wire strain gauges in four-conductor full-bridge circuit.
- Control resistance for final adjustment of the measuring range.
- All measuring ranges that are specified in Newton can also be supplied in kg ranges

! All ALMEMO® devices provide easy push-button adjustment of no-load and final value.

Other version: Force sensor with digital ALMEMO® D7 measuring plug, see ZKD700FS
Digital sensor, can be calibrated without measuring device. High measured value resolution.



Technical Data:

Max. load limit:	150 % of final value
Maximum dynamic load:	70 % of final value
Reference temperature:	23 °C
Cable:	3 m long, with axial ALMEMO® connector
Accuracy for tension:	<±0.1 % of fin. val.
Accuracy for tension and compression:	<±0.2 % of fin. val.
Nominal measuring path:	<0.15 mm
Operative range:	–10 to +70 °C

Drift error at permanent load:	<0.07 % per 30 min
Permissible lateral forces:	±60 % of fin. val.
Protection system:	up to 1 kN: IP 65, from 2 kN: IP 67
Material:	up to 1 kN: aluminium 2 to 50 kN: stainless steel
Dimensions in mm:	up to 10 kN: A=50, B=75, C=20, D=M12 20 kN, 50 kN: A=65, B=85, C=40, D=M 24 x 2

Options for all Force Transducers	Order no.		Order no.
Indication of measured values with ALMEMO® devices in kg	**OK9000K**	Indication of measured values with ALMEMO® devices in N and kg	**OK9000NK**

Accessories	Order no.		Order no.
Knuckle eyes with external thread M 12 (2 pcs) (dimensions in mm: D = M 12, E = 16, F = 32, G = 12, L = 54)	**ZB902512**	Knuckle eyes with external thread M 24 x 2 (2 pcs) (dimensions in mm: D = M 24 x 2, E = 26, F = 62, G = 25, L = 94)	**ZB902524**

Types (including test certificate)	Order no.
Measuring range 0.02 kN 0.05 kN, 0.1 kN, 0.2 kN, 0.5 kN, 1 kN, 2 kN, 5 kN or 10 kN please specify	**FKA0251**
Measuring range 20 kN	**FKA0252**
Measuring range 50 kN	**FKA0255**

Factory calibration KK9xxx force (traction / thrust) for sensor or measuring chain (sensor + device), see chapter „Calibration certificates“

Other designs are available on request

Tension and compression sensor FKA 012 with male thread terminal up to 1000 kN

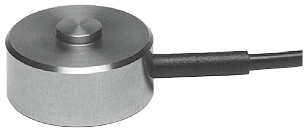


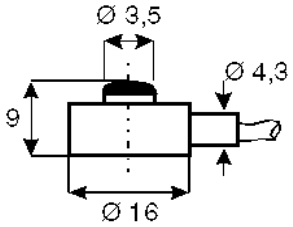
Tension and compression sensor FKA 1563 low height, with male thread terminal up to 2 kN



11/2025 • We reserve the right to make technical changes.

Compression Sensor K 22





- Wire strain gauges in four-conductor full-bridge circuit.
- Control resistance for final adjustment of the measuring range.
- All measuring ranges that are specified in Newton can also be supplied in kg ranges.

! All ALMEMO® devices provide easy push-button adjustment of no-load and final value.

Other version: Force sensor with digital ALMEMO® D7 measuring plug, see ZKD700FS
Digital sensor, can be calibrated without measuring device. High measured value resolution.

Technical Data:

Max. load limit:	150 % of final value
Maximum dynamic load:	70 % of final value
Reference temperature:	23 °C
Cable:	radial, 3 m long with ALMEMO® connector
Accuracy:	<±0.5 % of final value

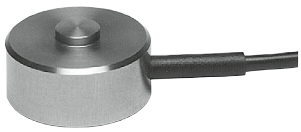
Nominal measuring path:	<0.2 mm
Operative range:	–10 to +50 °C
Drift error at permanent load:	0.1 % per 30 min
Protection system:	IP 65
Material:	stainless steel

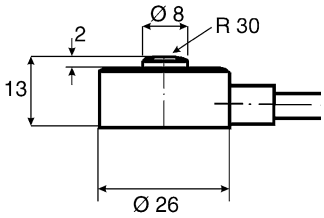
Type (including test certificate) **Order no.**

Measuring range 100 N, 200 N, 500 N, 1000 N or 2000 N please specify **FKA022**

Factory calibration KK9xxx force (tension or compression) for sensor or measuring chain (sensor + device), see chapter „Calibration certificates“

Compression Sensor K 1613





- Wire strain gauges in 4-conductor full-bridge circuit.
- Control resistance for final adjustment of the measuring range.
- All measuring ranges that are specified in Newton can also be supplied in kg ranges.

! All ALMEMO® devices provide easy push-button adjustment of no-load and final value.

Other version: Force sensor with digital ALMEMO® D7 measuring plug, see ZKD700FS
Digital sensor, can be calibrated without measuring device. High measured value resolution.

Technical Data:

Max. load limit:	150 % of final value
Maximum dynamic load:	70 % of final value
Reference temperature:	23 °C
Cable:	radial, 3 m long with ALMEMO® connector
Accuracy:	<±0.5 % of final value

Nominal measuring path:	<0.2 mm
Operative range:	–10 to +50 °C
Drift error at permanent load:	0.1 % per 30 min
Protection system:	IP 65
Material:	stainless steel

Type (including test certificate) **Order no.**

Measuring range 0.5 kN, 1 kN, 2 kN, 5 kN, 10 kN or 20 kN (50 kN on request) please specify **FKA613**

Factory calibration KK9xxx force (tension or compression) for sensor or measuring chain (sensor + device), see chapter „Calibration certificates“

Compression Sensor

Other designs are available on request



Compression sensor FKA 2528
inexpensive Protective class IP60
0.2 to 10 kN



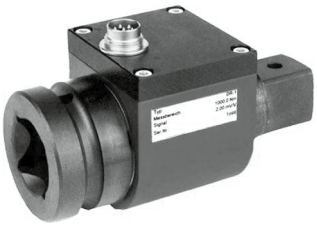
Compression sensor FKA 013
other measuring ranges
from 10 N up to 100 kN

Torque sensor

Other designs are available on request



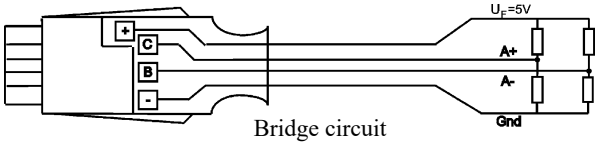
Static torque sensor
e.g. with square terminal 2 to 5000 Nm



Rotating torque sensor (slip ring)
e.g. with square terminal 1 to 5000 Nm

ALMEMO® input connector for measuring bridges, millivolt / volt differential

Full bridges are measured in four-conductor circuits. The power supply for the bridges is provided by the ALMEMO® plug.



Bridge circuit

For technical data, see chapter “Input connectors”.

Types			**Order no.**
Model	Meas. Range	Resolution	
55 mV DC	–10.0 to +55.0	1 µV	**ZA9105FS0**
26 mV DC	–26.0 to +26.0	1 µV	**ZA9105FS1**

Digital ALMEMO® D7 measuring plug for bridge differential mV

For force transducers (compression / tension), torque transducer or strain gauges.
High resolution or high conversion rate. Only for current ALMEMO® V7 measuring instruments, ALMEMO® 202-S, 204, 104, 710, 510, 809.

Full bridges are measured in four-conductor circuits. The power supply for the bridges is provided by the ALMEMO® D7 plug.

For technical data, see chapter “Input connectors”.

Types:			**Order no.**
Range	Display range	Conversion rate	
DMS1*	±200 000 digits	10 mops	
or			
DMS2	±50 000 digits	1000 mops	**ZKD700FS**

* Factory setting: The desired measuring range can be programmed on the ALMEMO® V7 device itself.

Option: Configuration of ALMEMO® D7 measuring connector; measuring rate 1000 mops **OA9007PRM1000**

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