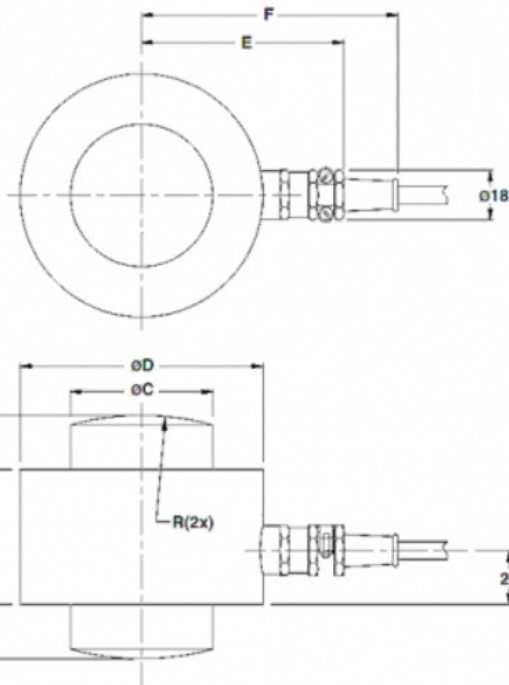


KA90 6t, 13t, 28t, 60t, 130t, 280t



Description

Dimensions



E_{max}	6	13	28	60	130	280
A	56	68	74	90	116	170
B	8	12	14	20	26	45
C	16.7	24.5	36.0	52.7	77.5	114
D	45	55	64	90	121	165
E	52.5	57.5	62.0	75.0	90.5	112.5
F	71.5	76.5	81	94	109.5	131.5
R	50	66	72	100	125	183

Cable specifications

Cable length: 10 m (6T version: 5m)
 Excitation + Red
 Excitation - White
 Output + Black
 Output - Blue
 Shield Transparent / Yellow
 Cable screen is not connected to the load cell body.

Technical Data - Version 6t

Force sensor

Type	load cell
Force direction	Compression
Rated force Fx	6 t
Force introduction	Load button
Dimension 1	Ø16,7x8
Sensor Fastening	Load button
Dimension 2	Ø16,7x8
Operating force	150 %FS
Rated displacement	1.24 mm
Lateral force limit	10 %FS
Material	Tool steel
Surface	nature
Height	56 mm
Length or Diameter	45 mm

Electrical Data

Input resistance	275 Ohm
Output resistance	245 Ohm
Tolerance output resistance	0.2 Ohm
Insulation resistance	5 GOhm
Rated range of excitation voltage f	2.5 ... 5 V
Operating range of excitation voltage f	1 ... 10 V
Zero signal	0.05 mV/V
Rated output	1.5 mV/V / FS
relative error of characteristic value	0.008 mV/V / FS

Precision

Accuracy class	0,2%
Relative linearity error	0.1 %FS
Relative zero signal hysteresis	0.05 %FS
Temperature effect on zero signal	0.05 %FS/K
Temperature effect on characteristic value	0.05 %RD/K
Relative creep	0.08 %FS

Connection Data

Connection type	4 conductor open
Name of the connection	2x2x0,25 PUR

Temperature

Rated temperature range f	-10 ... 60 °C
Operating temperature range f	-10 ... 70 °C
Storage temperature range f	-30 ... 80 °C
Environmental protection	IP66

Technical Data - Version 13t

Force sensor

Type	load cell
Force direction	Compression
Rated force Fx	13 t
Force introduction	Load button
Dimension 1	Ø16,7x8
Sensor Fastening	Load button
Dimension 2	Ø16,7x8
Operating force	150 %FS
Rated displacement	1.24 mm
Lateral force limit	10 %FS
Material	Tool steel
Surface	nature
Height	68 mm
Length or Diameter	54 mm

Electrical Data

Input resistance	275 Ohm
Output resistance	245 Ohm
Tolerance output resistance	0.2 Ohm
Insulation resistance	5 GOhm
Rated range of excitation voltage f	2.5 ... 5 V
Operating range of excitation voltage f	1 ... 10 V
Zero signal	0.05 mV/V
Rated output	1.5 mV/V / FS
relative error of characteristic value	0.008 mV/V / FS

Precision

Accuracy class	0,2%
Relative linearity error	0.1 %FS
Relative zero signal hysteresis	0.05 %FS
Temperature effect on zero signal	0.05 %FS/K
Temperature effect on characteristic value	0.05 %RD/K
Relative creep	0.08 %FS

Connection Data

Connection type	4 conductor open
Name of the connection	2x2x0,25 PUR

Temperature

Rated temperature range f	-10 ... 60 °C
Operating temperature range f	-10 ... 70 °C
Storage temperature range f	-30 ... 80 °C
Environmental protection	IP66

Technical Data - Version 28 t

Force sensor

Type	load cell
Force direction	Compression
Rated force Fx	28 t
Force introduction	Load button
Dimension 1	Ø16,7x8
Sensor Fastening	Load button
Dimension 2	Ø16,7x8
Operating force	150 %FS
Rated displacement	1.24 mm
Lateral force limit	10 %FS
Material	Tool steel
Surface	nature
Height	74 mm
Length or Diameter	60 mm

Electrical Data

Input resistance	275 Ohm
Output resistance	245 Ohm
Tolerance output resistance	0.2 Ohm
Insulation resistance	5 GOhm
Rated range of excitation voltage f	2.5 ... 5 V
Operating range of excitation voltage f	1 ... 10 V
Zero signal	0.05 mV/V
Rated output	1.5 mV/V / FS
relative error of characteristic value	0.008 mV/V / FS

Precision

Accuracy class	0,1%
Relative linearity error	0.1 %FS
Relative zero signal hysteresis	0.05 %FS
Temperature effect on zero signal	0.05 %FS/K
Temperature effect on characteristic value	0.05 %RD/K
Relative creep	0.08 %FS

Connection Data

Connection type	4 conductor open
Name of the connection	2x2x0,25 PUR

Temperature

Rated temperature range f	-10 ... 60 °C
Operating temperature range f	-10 ... 70 °C
Storage temperature range f	-30 ... 80 °C
Environmental protection	IP66

Technical Data - Version 60 t

Force sensor

Type	load cell
Force direction	Compression
Rated force Fx	60 t
Force introduction	Load button
Dimension 1	Ø16,7x8
Sensor Fastening	Load button
Dimension 2	Ø16,7x8
Operating force	150 %FS
Rated displacement	1.24 mm
Lateral force limit	10 %FS
Material	Tool steel
Surface	nature
Height	90 mm
Length or Diameter	90 mm

Electrical Data

Input resistance	275 Ohm
Output resistance	245 Ohm
Tolerance output resistance	0.2 Ohm
Insulation resistance	5 GOhm
Rated range of excitation voltage f	2.5 ... 5 V
Operating range of excitation voltage f	1 ... 10 V
Zero signal	0.05 mV/V
Rated output	1.5 mV/V / FS
relative error of characteristic value	0.008 mV/V / FS

Precision

Accuracy class	0,2%
Relative linearity error	0.1 %FS
Relative zero signal hysteresis	0.05 %FS
Temperature effect on zero signal	0.05 %FS/K
Temperature effect on characteristic value	0.05 %RD/K
Relative creep	0.08 %FS

Connection Data

Connection type	4 conductor open
Name of the connection	2x2x0,25 PUR

Temperature

Rated temperature range f	-10 ... 60 °C
Operating temperature range f	-10 ... 70 °C
Storage temperature range f	-30 ... 80 °C
Environmental protection	IP66

Technical Data - Version 130 t

Force sensor

Type	load cell
Force direction	Compression
Rated force Fx	130 t
Force introduction	Load button
Dimension 1	Ø16,7x8
Sensor Fastening	Load button
Dimension 2	Ø16,7x8
Operating force	150 %FS
Rated displacement	1.24 mm
Lateral force limit	10 %FS
Material	Tool steel
Surface	nature
Height	116 mm
Length or Diameter	115 mm

Electrical Data

Input resistance	275 Ohm
Output resistance	245 Ohm
Tolerance output resistance	0.2 Ohm
Insulation resistance	5 GOhm
Rated range of excitation voltage f	2.5 ... 5 V
Operating range of excitation voltage f	1 ... 10 V
Zero signal	0.05 mV/V
Rated output	1.5 mV/V / FS
relative error of characteristic value	0.008 mV/V / FS

Precision

Accuracy class	0,2%
Relative linearity error	0.1 %FS
Relative zero signal hysteresis	0.05 %FS
Temperature effect on zero signal	0.05 %FS/K
Temperature effect on characteristic value	0.05 %RD/K
Relative creep	0.08 %FS

Connection Data

Connection type	4 conductor open
Name of the connection	2x2x0,25 PUR

Temperature

Rated temperature range f	-10 ... 60 °C
Operating temperature range f	-10 ... 70 °C
Storage temperature range f	-30 ... 80 °C
Environmental protection	IP66

Technical Data - Version 280 t

Force sensor

Type	load cell
Force direction	Compression
Rated force Fx	280 t
Force introduction	Load button
Dimension 1	Ø16,7x8
Sensor Fastening	Load button
Dimension 2	Ø16,7x8
Operating force	150 %FS
Rated displacement	1.24 mm
Lateral force limit	10 %FS
Material	Tool steel
Surface	nature
Height	170 mm
Length or Diameter	165 mm

Electrical Data

Input resistance	275 Ohm
Output resistance	245 Ohm
Tolerance output resistance	0.2 Ohm
Insulation resistance	5 GOhm
Rated range of excitation voltage f	2.5 ... 5 V
Operating range of excitation voltage f	1 ... 10 V
Zero signal	0.05 mV/V
Rated output	1.5 mV/V / FS
relative error of characteristic value	0.008 mV/V / FS

Precision

Accuracy class	0,2%
Relative linearity error	0.1 %FS
Relative zero signal hysteresis	0.05 %FS
Temperature effect on zero signal	0.05 %FS/K
Temperature effect on characteristic value	0.05 %RD/K
Relative creep	0.08 %FS

Connection Data

Connection type	4 conductor open
Name of the connection	2x2x0,25 PUR

Temperature

Rated temperature range f	-10 ... 60 °C
Operating temperature range f	-10 ... 70 °C
Storage temperature range f	-30 ... 80 °C
Environmental protection	IP66

Abbreviation : RD: „Reading“; FS: „Full Scale“;

1) The exact nominal sensitivity is indicated in the test report.





Pin Configuration

Symbol	Description	Wire colour
+Us	positive bridge supply	red
-Us	negative bridge supply	white
+Ud	positive bridge output	black
-Ud	negative bridge output	blue

Shield- transparent / yellow.

Pressure load: positive output signal

accessories

	Description	Description
	Calibration Certificate kn/200/5	Factory calibration certificate for force to 200 kN in accordance with DIN EN ISO / IEC 17025 for test materials monitoring according to DIN ISO 9001: 2008 with 5 load levels and 3 series of measurements.
	Calibration Certificate kn/1000/5	Factory calibration certificate for force to 1 MN in accordance with DIN EN ISO / IEC 17025 for test materials monitoring according to DIN ISO 9001: 2008 with 5 load levels and 3 series of measurements.
	KL4 CG	clamping box for parallel connection of 4 sensors, dimensions: 175mm x105mm x 60mm, 4xPG9, 7-pole
	KL4 M12	clamping box for parallel connection of 4 sensors, dimensions: 175mm x105mm x 60mm, 4xM12 female, 1xM12 male