

Load cell K - 10 to 3000 kg

For compression and tension loads

Type K load cells are beam cells where the ends are attached in such a way that the measured load acts perpendicular to the beam's longitudinal axis. The beam has three transverse through holes. There are two mounting holes at one end. The other end has a single hole for rigid or compliant load connection.

The load cells are characterized by insensitivity within wide limits to disturbing lateral loads from all directions perpendicular to the measured load and to lateral displacements of the measured load's point of action (eccentric loads).

Type K load cells are designed for use in industrial environments and are available in stainless steel.

An elastic load equalizer and other mounting accessories allow simple installation to the load carrier. The mounting accessories are described overleaf.



Load cells are the load sensors in S-E-G weighing systems. They are installed as support points for objects to be weighed and senses their weight.

The elasticity of the load cell when subjected to a load is measured with strain gauges which transform the load-induced deflection into a proportional electrical signal.

All S-E-G load cells are:

- Made in Sweden
- High Quality and have a long life span
- With a 5 year warranty

Designations and specifications

Load cells are identified by a 2-unit code:



The code units are taken from the table below.

- Load cells up to 1000 kg are delivered with 3m cable.
- Load cell 3000 kg is delivered with 7m cable.

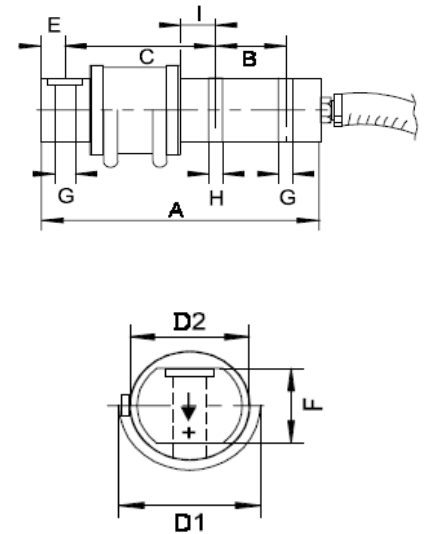
**Code example:
KN4-350.**

K: A load cell type K
N: Class 0,2
4: terminal resistance of 430 ohms.
350: load rating of 350 kg with 3 m cable.

Class - max errors as a % of load rating, calibration, tolerance not included.		0,2	0,1	0,05
Designations	Type	K	K	K
	Class designation (S=Stainless steel)	N(S)	N(S)	N(S)
	Resistance (4 =430 ohms)	4	4	4
	Rated Load			
	- designated RL below			
	10 kg	•		
	15 kg	•		
	35 kg	•	•	
	100 kg	•	•	•
	200 kg	•	•	•
	350 kg	•	•	•
	1000 kg	•	•	•
	3000 kg	•	•	•
Specifications (max values for class and rated load respectively)				
Continuous overload		60 %		
Brief, temporarily overload - elicits no permanent change		100 %		
Overload, Ultimate level		300 %		
Mechanical deflection at RL		approx.: 0,2 mm		
Lateral load relative to RL (May alter the output voltage +/- 0,5 % of RL)		100 %		
Lateral load relative to RL, ultimate level		300 %		
Calibration tolerance relative to Actual load (+/- 10 mm)		0,25	0,2	0,1
Eccentric load effect on sensitivity, relative to Actual load (± %)		0,25	0,1	0,1
Sum of non-linearity, hysteresis and creep errors (30 min) relative to RL (±%)		0,15	0,1	0,03
Repeatability errors relative to RL (±,%)		0,05	0,03	0,02
Temperature effect on zero balance relative to RL (±,%10 ° C)		0,1	0,05	0,03
Temperature effect on output voltage relative to actual load (±,%10 ° C)		0,1	0,04	0,014
Operating temperature (° C)		70	70	50
Specifications shared by all classes and load ratings				
The rated load elicits at 1mV output per input volt. Zero unbalance (bias): +/- 0,01 mV/V. Recommended input voltage: 15V Max input Voltage: 21V The temperature dependence is compensated within the range -10 to 50 ° C Enclosure class: IEC IP 67 (SEN S55). Tested and approved by the Research Institutes of Sweden (RISE)		*) Specifications are independent of resistances in the connecting cords for input voltage.		

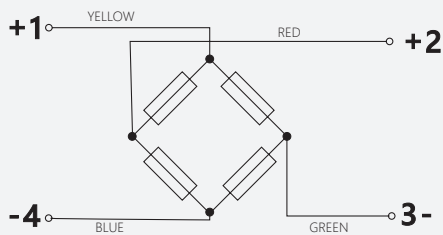
Dimensions and weight

Type	Measurements in mm										Weight in kg
	A	B	C	D1	D2	E	F	G	H	I	
K-10	150	50	80	70	-	10	36	9,5	9,5	10	2,1
K-15											
K-35											
K-100											
K-200											
K-350	190	60	85	70	-	17	44	14	14	13	25
K-1000											
K-3000	270	90	125	-	82	30	64	24	22	23	7,2

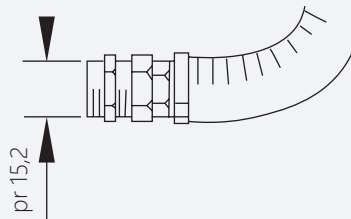


Connections

Markings

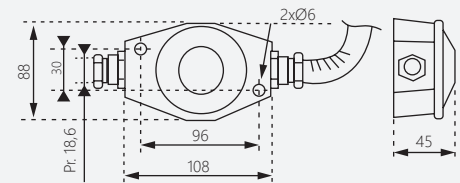


Load cell cable and connection:



Terminal box type A-1

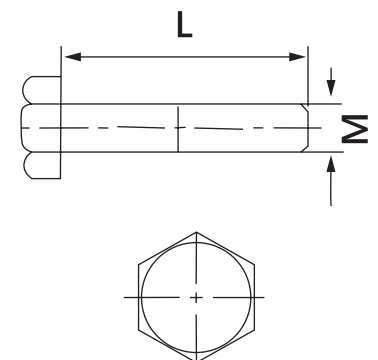
Terminal box w. with 4m cable A-1-14



Mounting accessories

Type **KS** fastening screws

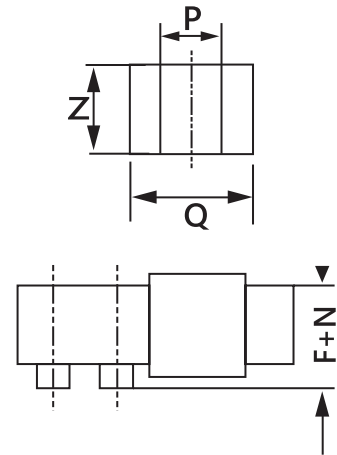
Standard type	Stainless type	For load cell	L mm	M mm	Tight. Torque with oiled thread Nm	Weight kg/pair
KS-0S	KS-0S-SS	K-10/15/35/100/200 w. plate KM	50	8	20	0,05
KS-0L	KS-0L-SS	K-10/15/35/100/200 w. ring KM	70	8	20	0,06
KS-1S	KS-1S-SS	K-350/1000 w. plate KM	60	12	68	0,15
KS-1L	KS-1L-SS	K-350/1000 w ring KR	75	12	68	0,16
KS-3S	KS-3S-SS	K-3000 w. plate KM	95	20	323	0,6
KS-3L	KS-3L-SS	K-3000 w. ring KR	110	20	323	0,7



Mounting accessories

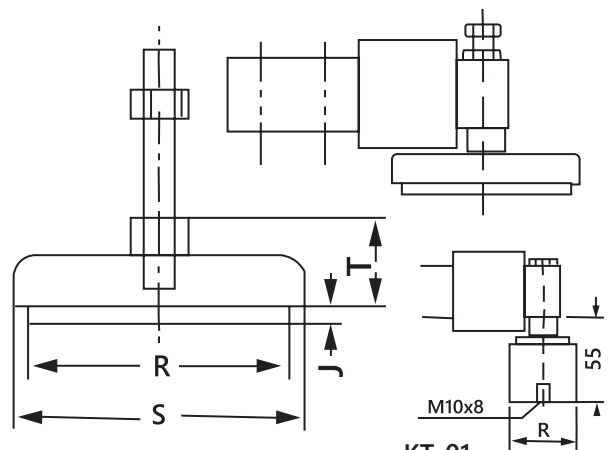
Type KR Spacer ring

Standard type	Stainless type	For load cell	Measurements in mm			Weight kg/pair
			N	P	Q	
KR-0	KR-0-SS	K-10/15/35/1000/200	19	8,5	20	0,1
KR-1	KR-1-SS	K-350/1000	16	14	26	0,1
KR-3	KR-3-SS	K-3000	26	22	40	0,4



Type KT elastic load equalizer

Type	For load cells	Measurements in mm				Weight kg/pair
		J	R	S	T	
KT-01	K-35	-	50	-	-	0,25
KT-02	K-100	-	50	-	-	0,25
KT-03	K-200	-	60	-	-	0,3
KT-1SS	K-350	11	90	98	42	0,6
KT-2SS	K-1000	11	90	98	42	0,6
KT-3A	K-3000	2	109	119	43	1,5
KT-3ASS	K-3000	2	109	119	43	1,5



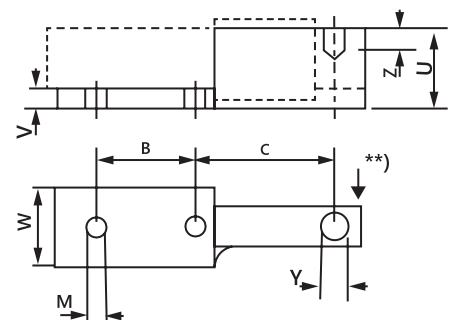
KT-1. -2. & -3 SS*
Including screw and spacer ring KR

KT-01
KT-02
KT-03

* Load equalizer in SIS2333 is designated SS

Type KM mounting plate with jig

Type	For load cells	Measurements in mm								Weight kg
		B	C	M	U	V	W	Y	Z	
KM-0	K-10/15-35/100/200	50	80	8	55	20	50	9	15	1,2
KM-1	K-350/1000	60	85	12	60	15	50	12,5	20	1,3
KM-3	K-3000	90	125	20	90	25	70	20	30	4,5



***) The distance block is to be struck away when the mounting plate has been welded in position. See mounting instruction S-31-16