

## Weigh Module



### FEATURES

- Capacity range: 50, 100, 200, 300, and 500kN (11.2K, 22.4K, 44.9K, 67.5K, and 112.4Klb)
- Simple installation
- Moveable load point
- Withstands very high lateral forces
- Extremely accurate and rugged
- ATEX/FM/CSA certified for hazardous locations

### DESCRIPTION

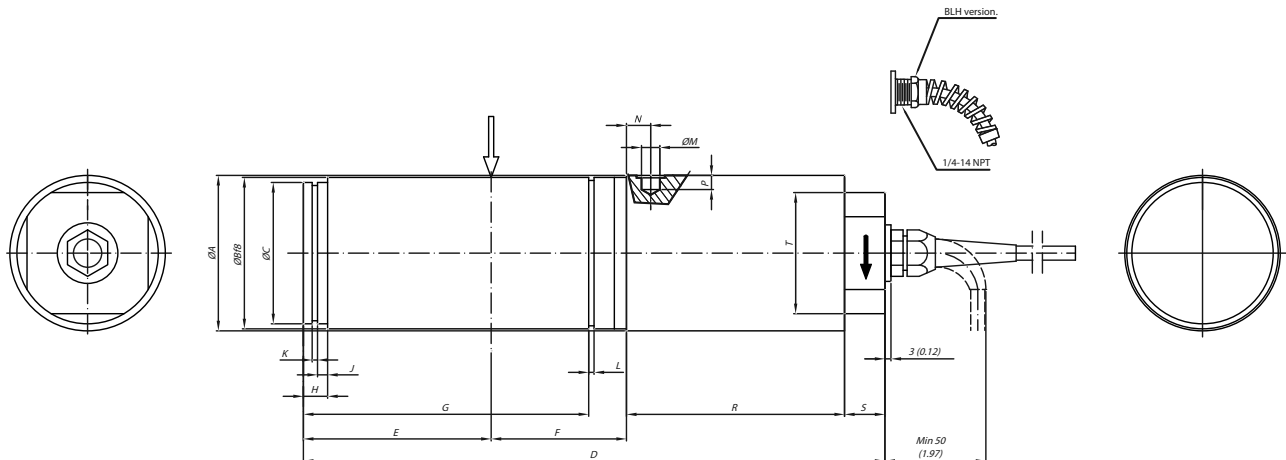
The KIS-1 load cell has several features that clearly distinguish it from other load cells. It is easy to install and extremely accurate, even when subjected to dynamic process forces and severe environmental

conditions. All KIS load cells can be ATEX/FM/CSA certified for use in explosive atmospheres.

### APPLICATIONS

- Large silo and storage bins
- Reactor and mixing vessels
- Conveyor belts
- High-capacity force measurement systems

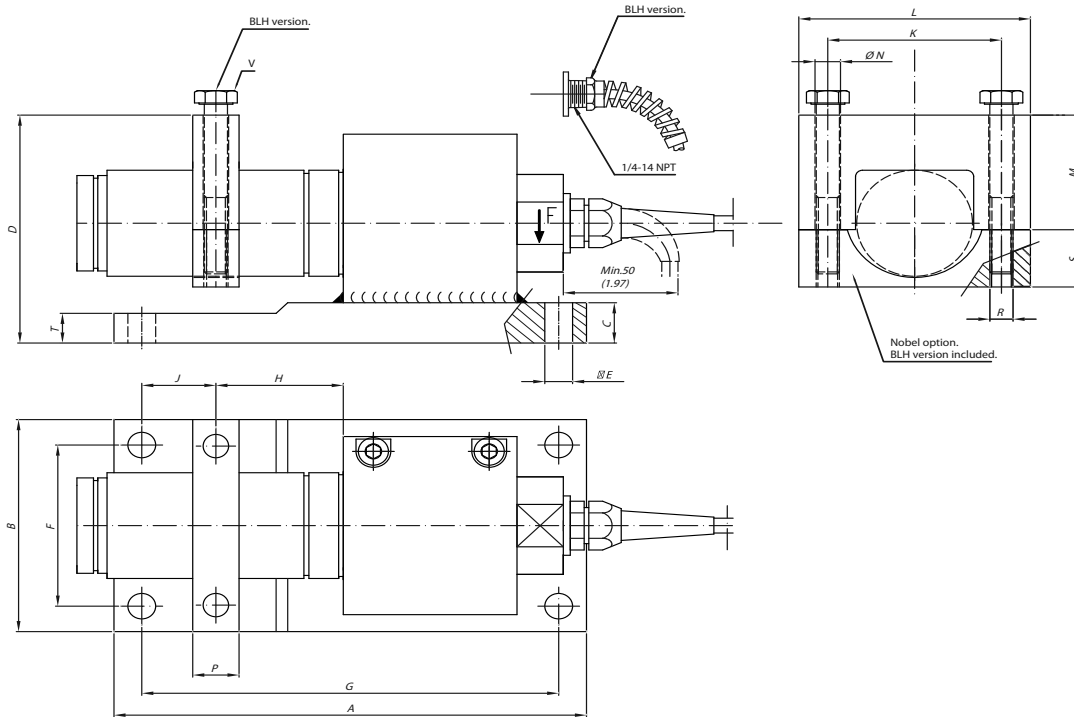
### OUTLINE DIMENSIONS



RANGE kN	ØA	ØB	ØC	D	E	F	G	H	J	K	L	ØM	N	P	R	S	T
50 (11.2k)	77 (3.03)	75 (2.95)	70 (2.76)	291 (11.46)	93 (3.66)	65 (2.56)	141.3 (5.56)	12 (.47)	5 (.20)	2.65 (.10)	2.65 (.10)	9.1 (.36)	14 (.55)	7 (.28)	110 (4.33)	20 (.79)	60 (2.36)
100 (22.4k)	92 (3.62)	90 (3.54)	82 (3.23)	315 (12.40)	107 (4.21)	65 (2.56)	155.4 (6.12)	15 (.59)	6 (.24)	2.65 (.10)	3.15 (.12)	12.6 (.50)	17 (.67)	8 (.31)	120 (4.72)	20 (.79)	70 (2.76)
200 (44.9k)	101 (3.98)	100 (3.94)	90 (3.54)	346 (13.62)	128 (5.04)	65 (2.56)	175.8 (6.92)	15 (.59)	6 (.24)	3.15 (.12)	3.15 (.12)	15.7 (.62)	19 (.75)	8.5 (.33)	130 (5.12)	20 (.79)	80 (3.15)
300 (67.5k)	101 (3.98)	100 (3.94)	90 (3.54)	346 (13.62)	128 (5.04)	65 (2.56)	175.8 (6.92)	15 (.59)	6 (.24)	3.15 (.12)	3.15 (.12)	15.7 (.62)	19 (.75)	8.5 (.33)	130 (5.12)	20 (.79)	80 (3.15)
500 (112.4k)	142 (5.59)	140 (5.51)	130 (5.12)	450 (17.72)	165 (6.50)	75 (2.95)	212.8 (8.38)	35 (1.38)	20 (.79)	4.15 (.16)	4.15 (.16)	15.7 (.62)	30 (1.18)	8.5 (.33)	180 (7.09)	27 (1.06)	80 (3.15)

Dimension shown in MM (inch)

### OUTLINE DIMENSIONS cont.



RANGE kN	A	B	C	D	ØE	F	G	H	J	K	L	M	ØN	P	T	R	S
50 (11.2k)	280 (11.02)	150 (5.91)	30 (1.18)	152 (5.98)	16 (.63)	115 (4.53)	245 (9.65)	65 (2.56)	45,5 (1.79)	115 (4.53)	150 (5.91)	72 (2.83)	18 (.71)	30 (1.18)	30 (1.18)	M16 M16	43 (1.69)
100 (22.4k)	310 (12.20)	170 (6.69)	40 (1.57)	173 (6.81)	22 (.87)	130 (5.12)	270 (10.63)	65 (2.56)	63 (2.48)	126 (4.96)	160 (6.30)	85 (3.35)	22 (.87)	40 (1.57)	26 (1.02)	M20 M20	50 (1.97)
200 (44.9k)	340 (13.39)	180 (7.09)	50 (1.97)	199 (7.83)	25 (.98)	140 (5.51)	300 (11.81)	65 (2.56)	71 (2.80)	146 (5.75)	190 (7.48)	95 (3.74)	25 (.98)	50 (1.97)	32 (1.26)	M24 M24	57 (2.24)
300* (67.5k)	340 (13.39)	180 (7.09)	50 (1.97)	199 (7.83)	25 (.98)	140 (5.51)	300 (11.81)	65 (2.56)	71 (2.80)	175 (6.89)	220 (9.02)	105 (4.13)	26 (1.02)	53 (2.09)	32 (1.26)	M24 M24	56 (2.20)
500* (112.4k)	480 (18.90)	280 (11.02)	60 (2.36)	315 (12.40)	33 (1.30)	220 (8.66)	420 (16.54)	75 (2.95)	108 (4.25)	240 (9.45)	300 (11.81)	150 (5.91)	26 (1.02)	70 (2.76)	60 (2.36)	M24 M24	91 (3.58)

\*is provided with loading ring

RANGE kN	V
50	M16-2X120 (4.724) LG
100	M20-2.5X140 (5.512) LG
200	M24-3X160 (6.299) LG
300	Not available
500	Not available

Dimension shown in MM (inch)

**KIS-1 TECHNICAL DATA**

Rated load (R.L.)		50, 100, 200, 300, 500	kN
Combined error (terminal)		±0.03	% of R.O.
Repeatability		0.01	% of R.O.
Overload	Safe	200* , 150* for 300kN and 500kN	% of R.L.
	Ultimate	300* , 200 for 300 kN	% of R.L.
Uplift	Safe	70	% of R.L.
	Ultimate	85	% of R.L.
Sideload	Safe	100* , 50* for 300kN and 500kN	% of R.L.
	Ultimate	200* , 100 for 300kN and 500kN	% of R.L.
Input voltage	Recommended	10	V DC or AC
	Maximum	18	V DC or AC
Input resistance		350 ±3	Ohm
Output resistance		350 ±0.5	Ohm
Rated output (R.O.)		2.040	mV/V
Tolerance of R.O.		±0.1	% of R.O.
Zero balance		±1	% of R.O.
Tolerance of shunt calibration values		0.1	% of value**
Creep at R.L. after 30 minutes		±0.04	% of R.L.
Temperature range		-40 to +105***	°C
		-40 to +220***	°F
Temperature effect (-10°C to +50°C)	On output	±0.0015 ±0.0008	% of output/°C % of output/°F
	On zero balance	±0.003 ±0.0017	% of R.O./°C % of R.O./°F
Insulation resistance at 200V DC		>4	Gohm
Material: Load cell	50 kN	Stainless steel <sup>1)</sup>	
		Yellow chromate steel <sup>2)</sup>	
	100 - 500 kN	Stainless steel or yellow chromate steel	
Material bracket, yoke and tilt guard		Yellow chromate steel****	
Electrical connection		10m shielded four conductor cable	
Degree of protection		IP 67	
ATEX/FM/CSA certified versions for use in explosive atmospheres are available			
ATEX		II 1 GD EEx ia IIC T4 T <sub>amb</sub> = 40 °C EEx ia IIC T6 T <sub>amb</sub> = 60 °C	
FM		3611 (Class I, II, III; Div 1,2; Group A-G)	
CSA		C22.2 (Class I, II, III; Div 1,2; Group A-G)	

\* Referring to recommended loading case

\*\* See calibration sheet of the load cell

\*\*\* Higher on demand

\*\*\*\* Stainless steel on demand

1) Only Nobel version

2) Only BLH version

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