

Weigh Module

FEATURES

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



APPLICATIONS

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

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, IECEx, FM, CSA certified for use in explosive atmospheres.



OUTLINE DIMENSIONS

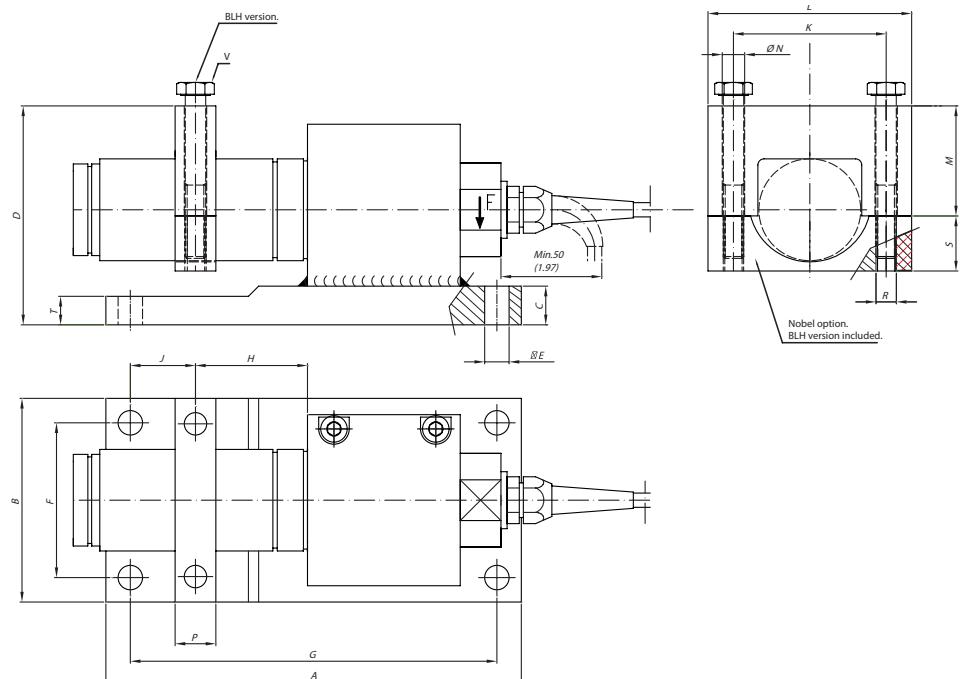
The technical drawing illustrates the physical dimensions of the KIS-1 Weigh Module. The front view shows the top and bottom flanges with various hole sizes (ØA, ØB, ØC, ØM) and a central mounting hole (ØN). The side view shows the height (R) and a slot (S) with a width of 3 (0.12). Other dimensions include E, F, G, H, J, K, L, and P. A circular cross-section view is also provided.

RANGE kN (lb)	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)	288	95 (11.34)	65 (3.74)	141.3 (2.56)	.12 (.47)	5 (.20)	2.65 (.10)	2.65 (.10)	9.1 (.36)	12 (.47)	7 (.28)	108 (4.25)	20 (.79)	60 (2.36)
100 (22.4k)	92 (3.62)	90 (3.54)	82 (3.23)	312	109 (12.28)	65 (4.29)	155.4 (2.56)	15 (6.12)	6 (.59)	2.65 (.10)	3.15 (.12)	12.6 (.50)	15 (.59)	8 (.31)	118 (4.65)	20 (.79)	70 (2.76)
200 (44.9k)	101 (3.98)	100 (3.94)	90 (3.54)	343	130 (13.50)	65 (5.12)	175.8 (2.56)	15 (6.92)	6 (.59)	3.15 (.24)	3.15 (.12)	15.7 (.62)	17 (.67)	8.5 (.33)	128 (5.04)	20 (.79)	80 (3.15)
300 (67.5k)	101 (3.98)	100 (3.94)	90 (3.54)	343	130 (13.50)	65 (5.12)	175.8 (2.56)	15 (6.92)	6 (.59)	3.15 (.24)	3.15 (.12)	15.7 (.62)	17 (.67)	8.5 (.33)	128 (5.04)	20 (.79)	80 (3.15)
500 (112.4k)	142 (5.59)	140 (5.51)	130 (5.12)	447	168 (17.60)	75 (6.61)	212.8 (2.95)	35 (8.38)	20 (1.38)	4.15 (.79)	4.15 (.16)	15.7 (.62)	27 (1.06)	8.5 (.33)	177 (6.97)	27 (1.06)	80 (3.15)

Dimension shown in mm (in)

Weigh Module

OUTLINE DIMENSIONS cont.



RANGE kN (lb)	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 (0.63)	115 (4.53)	245 (9.65)	65 (2.56)	45,5 (1.79)	115 (4.53)	150 (5.91)	72 (2.83)	18 (0.71)	29 (1.14)	30 (1.14)	M16 M16	43 (1.69)
100 (22.4k)	310 (12.20)	170 (6.69)	40 (1.57)	173 (6.81)	22 (0.87)	130 (5.12)	270 (10.63)	65 (2.56)	63 (2.48)	126 (4.96)	160 (6.30)	85 (3.35)	22 (0.87)	39 (1.54)	39 (1.02)	M20 M20	50 (1.97)
200 (44.9k)	340 (13.39)	180 (7.09)	50 (1.97)	199 (7.83)	25 (0.98)	140 (5.51)	300 (11.81)	65 (2.56)	71 (2.80)	146 (5.75)	190 (7.48)	95 (3.74)	25 (0.98)	49 (1.93)	32 (1.26)	M24 M24	57 (2.24)
300* (67.5k)	340 (13.39)	180 (7.09)	50 (1.97)	199 (7.83)	25 (0.98)	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)

* Provided with loading ring

RANGE kN (lb)	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 (in)

Weigh Module

SPECIFICATIONS	
PARAMETER	VALUE
PERFORMANCE	
Rated load (RL)	50, 100, 200, 300, 500 kN
Combined error (terminal)	±0.03% RO
Repeatability	0.01% RO
Overload,* safe	200% RL, 150% RL for 300 kN and 500 kN
Overload,* ultimate	300% RL, 200% RL for 300 kN
Uplift, safe	70% RL
Uplift, ultimate	85% RL
Side load,* safe	100% RL, 50% RL for 300 kN and 500 kN
Side load,* ultimate	200% RL, 100% RL for 300 kN and 500 kN
Input voltage, recommended	10 VDC or VAC
Input voltage, maximum	18 VDC or VAC
Input resistance	350 Ω ±3 Ω
Output resistance	350 Ω ±0.5 Ω
Rated output (RO)	2.040 mV/V
Tolerance of RO	±0.1% RO
Zero balance	±1% RO
Tolerance of shunt calibration values	0.1% of value; actual output defined on unit calibration sheet
Creep at RL after 30 minutes	±0.04% RL
Temperature range (wider temperature range available upon request)	–40 to +105°C –40 to +220°F
Temperature effect, on output (–10°C to +50°C)	±0.0015% of output/°C ±0.0008% of output/°F
Temperature effect, on zero balance (–10°C to +50°C)	±0.003% RO/°C ±0.0017 % RO/°F
Insulation resistance at 200 VDC	>4 GΩ
Material: load cell, 50 kN	Stainless steel (Nobel version), yellow chromate steel (BLH version)
Material: load cell, 100–500 kN	Yellow chromate steel, stainless steel as an option
Material: bracket, yoke and tilt guard	Yellow chromate steel, stainless steel as an option
Electrical connection	10m shielded four conductor cable
Degree of protection	IP67
APPROVALS	
ATEX, IECEx, FM, CSA certified versions are available upon request. For details contact blhnobel@vpgsensors.com .	

* Referring to recommended loading point

BLH Nobel is continually seeking to improve product quality and performance. Specifications may change accordingly.



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