Kelba

LOADCELLS

'K' SERIES

FOR OTHER LOADCELL TYPES SEE FULL KELBA BINDER

- *Proven Performance*
- *Ready Availability*
- *Rugged Construction*
- *Economically Priced*
- *Excellent Reliability*
- *NSC Approved Models*

THE LOADCELL SPECIALISTS

Kelba are specialist loadcell designers and manufacturers with over 15 years of experience.

PROVEN DESIGN
Kelba 'K' Series shearbeam type loadcells have inherent low deflection, high rejection of side loads, and exhibit excellent cyclic load performance.

EXCELLENT RELIABILITY
Subject to continuous detailed development in Australia over a 20 year period, all Kelba loadcells exhibit proven dependable performance in a wide range of precision weighing applications and across a broad range of industry.

VERSATILE
The Kelba 'K' Series range of shearbeam loadcells is widely suitable for applications ranging from precision scales to heavy industrial weighing.

ECONOMICAL PRICING
Continually increasing demand for Kelba loadcells has enabled us to achieve economies of scale with the result that we are able to provide extremely competitive pricing across the complete range.

QUALITY STANDARDS
Kelba loadcells are subject to rigorous inspection and monitoring during every stage of the manufacturing process. In addition, we are in the process of obtaining certification to International Standard ISO 9000.

ENVIRONMENTAL
Particular attention is paid to the environmental sealing of all Kelba loadcells in order to provide a product with good field performance and reliability.

EX-STOCK AVAILABILITY
In order to provide the service our clients need Kelba has a policy of supplying most standard type product from extensive stocks maintained in our Sydney based manufacturing facility.

RUGGED CONSTRUCTION
Kelba 'K' Series loadcells are precision machined from specially selected steels and then heat treated to a precise toughness. Tool steel models are then heavily zinc plated to give a tough corrosion resistant finish. Stainless steel is also available.

STANDARDISED OUTPUT
Multiple cell installations are easily accomplished as each cell is standardised to give the same change in output for a given load change.

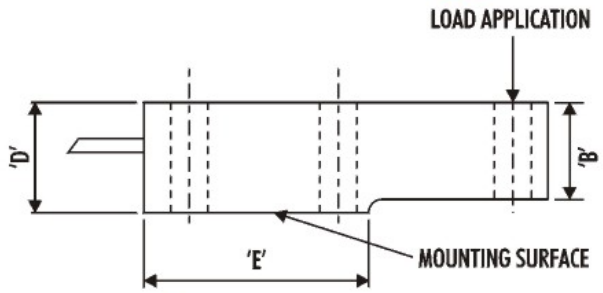
NSC APPROVED

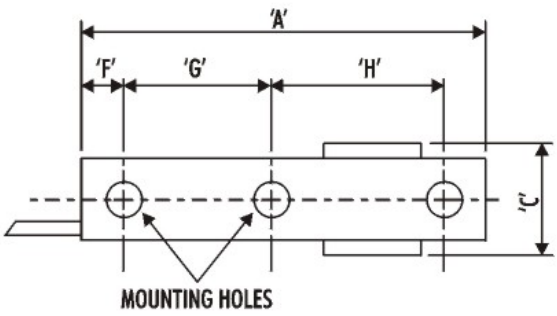
Proof of our ability to repeatably produce high quality loadcells is certification by National Standards Commission for loadcells for use in Weights and Measures approved trade use scales, weighbridges, etc.

TYPICAL LOADCELL SPECIFICATIONS	MODEL KA-125	MODEL KA-250	MODEL KA-500	MODEL KA1000	MODEL KL-1000
Loadcell Type	Shearbeam	Shearbeam	Shearbeam	Shearbeam	Shearbeam
Material of Construction	Tool Steel	Tool Steel	Tool Steel	Tool Steel	Tool Steel
**Optional Material	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	N/A
Mounting Bolt Size	M 8	M 8	M 10	M 10	M 10
Recommended Torque (8.8 grade bolts)	22NM	22NM	44NM	44NM	44NM
Load Hole	Tapped M10 x 1.5	Tapped M10 x 1.5	Tapped M12 x 1.75	Tapped M12 x 1.75	3/8" UNF
Loadfitting Contact Area	18mm Dia.	18mm Dia.	24mm Dia.	24mm Dia.	24mm Dia.
Rated Capacity (R.C.)	125 Kg	250 Kg	500 Kg	1000 Kg	1000 Kg
Safe Load Limit	150 % of R.C.	150 % of R.C.	150 % of R.C.	150 % of R.C.	150 % of R.C.
Max. Excitation Voltage	15V DC	15V DC	15V DC	15V DC	15V DC
Rec. Excitation Voltage	10V DC	10V DC	10V DC	10V DC	10V DC
Output at Rated Capacity (nominal)	2.2 mV per Volt ± 0.5%	2.2 mV per Volt ± 0.5%	2.2 mV per Volt ± 0.5%	2.2 mV per Volt ± 0.5%	1.5 mV per Volt ± 0.5%
Standard Cable Length	2 M	2 M	3 M	3 M	3 M
Temperature Range	minus 10 to + 50°C	minus 10 to + 50°C	minus 10 to + 50°C	minus 10 to + 50°C	minus 10 to + 50°C
Input Resistance	385 Ω (nom)	385 Ω (nom)	385 Ω (nom)	385 Ω (nom)	385 Ω (nom)
Output Resistance	350 Ω ± 0.2%	350 Ω ± 0.2%	350 Ω ± 0.2%	350 Ω ± 0.2%	350 Ω ± 0.2%
Non-Linearity	< 0.03% of rated cap	< 0.03% of rated cap	< 0.03% of rated cap	< 0.03% of rated cap	< 0.03% of rated cap
Hysterisis	< 0.03% of rated cap	< 0.03% of rated cap	< 0.03% of rated cap	< 0.03% of rated cap	< 0.03% of rated cap
Non-Repeatability	< 0.01% of rated cap	< 0.01% of rated cap	< 0.01% of rated cap	< 0.01% of rated cap	< 0.01% of rated cap
Creep (after 30 min)	< 0.04% of reading	< 0.03% of reading	< 0.03% of reading	< 0.02% of reading	< 0.02% of reading
Span/Temperature Effect	0.0015% of reading / degree C	0.0015% of reading / degree C	0.0015% of reading / degree C	0.0015% of reading / degree C	0.0015% of reading / degree C
Environmental Protection	IP67	IP67	IP67	IP67	IP67
Weight	0.4 Kg	0.4 Kg	0.7 Kg	0.7 Kg	0.7 Kg

MECHANICAL

Shear Beam Type



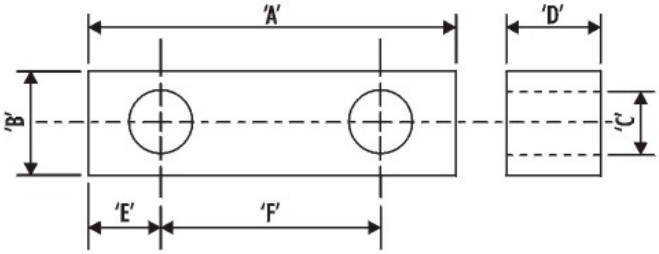


Shear Beam Dimensions

MODEL	A	B	C	D	E	F	G	H
KA-125	110	21	28 max	25	54	10	33	57
KA-250	110	21	28 max	25	54	10	33	57
KA-500	125	28	33 max	32	63	12.5	38	61.5
KA-1000	125	28	33 max	32	63	12.5	38	61.5
KL-1000	125	28	31	28	66.5	12.5	38	61.5
KA-2500	190	45	51	50	108	20	60	88
KA-5000	190	45	51	50	108	20	60	88
KA-10000	227	56	56	66	117	25	60	117

Special note: KA-125 / 250 mtg holes offset 2.5mm from centre line towards non-cable side

Tension Force Type



Tension Force Dimensions

MODEL	A	B	C	D	E	F
KT-6000	124	42	27ϕ	36	23.5	77
KT-12000	193	51	36ϕ	51	38	117

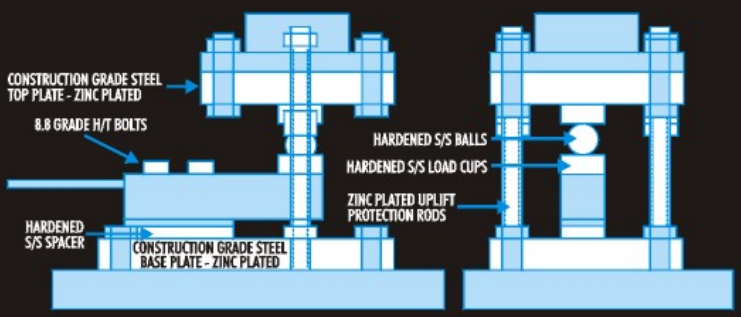
** In the interests of development and improvement, the specifications contained herein are subject to change without notice.*

TYPICAL LOADCELL SPECIFICATIONS	MODEL KA-2500	MODEL KA-5000	MODEL KA-10000	MODEL KT6000	MODEL KT-12000
Loadcell Type	Shearbeam	Shearbeam	Shearbeam	Tension Force	Tension Force
Material of Construction	Tool Steel	Tool Steel	Tool Steel	Tool Steel	Tool Steel
**Optional Material	Stainless Steel	Stainless Steel	No Option	No Option	No Option
Mounting Bolt Size	M 20	M 20	25mm	Green Shackle Pin	Green Shackle Pin
Recommended Torque (8.8 grade bolts)	380NM	380NM	660NM	N/A	N/A
Load Hole	M 20 Clearance	M 20 Clearance	25mm Clearance	Green Shackle Pin	Green Shackle Pin
Loadfitting Contact Area	46mm Dia.	46mm Dia.	50mm Dia.	N/A	N/A
Rated Capacity (R.C.)	2500 Kg	5000 Kg	10000 Kg	6000 Kg	12000 Kg
Safe Load Limit	150 % of R.C.	150 % of R.C.	150 % of R.C.	150 % of R.C.	150 % of R.C.
Max. Excitation Voltage	15V DC	15V DC	15V DC	10V DC	10V DC
Rec. Excitation Voltage	10V DC	10V DC	10V DC	10V DC	10V DC
Output at Rated Capacity	2.2 mV per Volt ± 0.5%	2.2 mV per Volt ± 0.5%	2.2 mV per Volt ± 0.5%	1.0 mV per Volt ± 0.5%	1.5 mV per Volt ± 0.5%
Standard Cable Length	5 M	5 M	5 M	5 M	5 M
Temperature Range	minus 10 to + 50°C	minus 10 to + 50°C	minus 10 to + 50°C	minus 10 to + 50°C	minus 10 to + 50°C
Input Resistance	385 Ω (nom)	385 Ω (nom)	385 Ω (nom)	385 Ω (nom)	385 Ω (nom)
Output Resistance	350 Ω ± 0.2%	350 Ω ± 0.2%	350 Ω ± 0.2%	350 Ω ± 0.2%	350 Ω ± 0.2%
Non-Linearity	< 0.03% of rated cap	< 0.03% of rated cap	< 0.05% of rated cap	< 0.5% of rated cap	< 0.5% of rated cap
Hysterisis	< 0.03% of rated cap	< 0.03% of rated cap	< 0.03% of rated cap	< 0.5% of rated cap	< 0.5% of rated cap
Non-Repeatability	< 0.01% of rated cap	< 0.01% of rated cap	< 0.01% of rated cap	< 0.1% of rated cap	< 0.1% of rated cap
Creep (after 30 min)	< 0.03% of reading	< 0.04% of reading	< 0.04% of reading	< 0.1% of reading	< 0.1% of reading
Span/Temperature Effect	0.0015% of reading / degree C	0.0015% of reading / degree C	0.0015% of reading / degree C	0.0015% of reading / degree C	0.0015% of reading / degree C
Environmental Protection	IP67	IP67	IP67	IP67	IP67
Weight	2.8 Kg	2.8 Kg	4.4 Kg	1.2 Kg	2.9 Kg

INSTALLATION

- *Loadcells are precision built transducers and should be treated with care.*
- *Install multiple loadcells with equal distribution of the total load.*
- *Ensure that the mounting surface for the loadcell is flat and of sufficient strength to bear the load to be applied without distortion.*
- *Mount loadcells securely using high tensile bolts only, grade 8.8 minimum.*
- *Recommended torque for mounting bolts as per bolt manufacturers' specifications.*
- *The contact area between loadfittings and the surface of any loadcell should not exceed that nominated in the table within.*
- *DO NOT apply a torque to the load end of a loadcell.*
- *Use overload protection if appropriate for the system.*
- *Be extra careful when welding around loadcells. DO NOT allow welding currents to pass through a loadcell. (Earth straps are available from Kelba as an option.)*

LOADCELL MOUNTING KITS

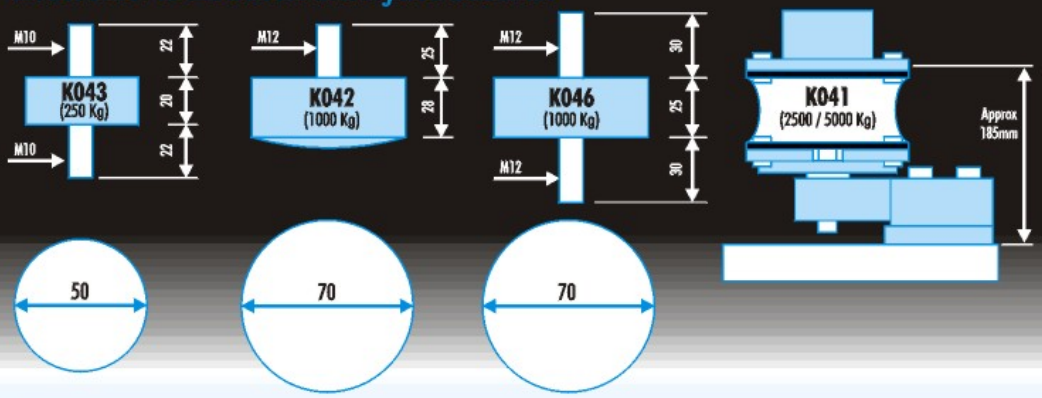


Features

Designed for loadcell capacities from 125kg up to 10,000kg. Load cups, balls, spacers and buttons are all through-hardened stainless steel. Kits available in both zinc plated steel and stainless steel.

Mounts are high performance ball and cup design. Top and bottom plates are manufactured from construction grade steel. Uplift and overload protection system also simplifies installation and maintenance.

Elastomeric Loadcell Interface Mounts



Electrical Connections

EX +	RED
SIG +	GREEN
SIG —	WHITE
EX —	BLACK
SHIELD	SILVER

Designed and Manufactured by Kelba (Australia) Pty Ltd
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***WARRANTY** (Partial) (Refer to Kelba for full warranty statement)*
Kelba (Australia) Pty Limited warrants that the equipment manufactured by the company is free from defects in workmanship and materials under normal use and service. Equipment returned to us, transport prepaid, within 3 years of original shipment, and found, after examination, to be so defective and has not been subject to improper use, will, at the option of the company, be repaired, or replaced, free of charge, ex factory Sydney.

REV. 7/98