



APPLIED MEASUREMENTS LTD.
Transducer Specialists...

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<https://appmeas.co.uk>

SLC Series Bow Type Wired Shackle Load Cell

Key Features:

- Ranges from 1 Tonne to 400 Tonnes
- High Tensile Carbon Steel Construction
- Environmental Sealed to IP67
- Simple Construction and Operation
- Shackle and Load Pin Fully Certified
- Optional Load Centralising Bobbin
- Can be Supplied with Amplified Output
- Many Other Options Available
- UKAS Traceable Calibration Certificate Included
- 3 Year Warranty



The SLC range of load measuring shackles are designed for use in lifting, force monitoring and weighing applications. The shackle pins are forged from high tensile stainless steel and are machined to an exacting specification. The SLC shackle utilises the Crosby G2130 (1 to 25te) and G2140 (40 to 400te) series bow shackles.

This range of load cells is proof loaded to 150% of the normal rated load during calibration, and is available in a range from 1 tonne to 400 tonnes (special ranges are available on request). The integral cable is normally enclosed in an armoured rubber hydraulic hose to give physical and environmental protection. The SLC is internally gauged and the whole instrumentation area is sealed to IP67 to protect it in service. We can also offer a wireless version the SLC24 wireless load shackles.

They are simple to install and are available in standard shackle sizes. As an option, a rotating bobbin can be supplied to centralize the load and to minimize any point-load effects when the shackle is placed under load. We are also always happy to discuss any special requirements that can be accommodated.

The SLC shackle load cell series can be supplied on its own or combined with our range of instrumentation to provide a complete load or force monitoring package, [contact our technical team](#).

Options:

- Analogue Outputs: 4-20mA / ± 10 Vdc / 0-10Vdc / 0-5Vdc
- RS485 Digital Output: ASCII , Modbus or CAN Protocol
- Special Ranges and Capacities up to 2000 Tonne
- Special Electrical Connections
- Integral Signal Conditioning
- Centralising Load Bobbin
- Subsea and Offshore Versions
- Lloyds, ABS or DNV Witness Testing
- TEDS (Transducer Electronic Data Sheet)
- TEDS Allows Plug & Play with TEDS Enabled Instrumentation.
- ATEX Versions Available

Applications:






- Under-Hook Hoist/Crane Weighing
- Cable Tension Monitoring
- Towing/Mooring Tension
- Crane Safe Load Monitoring



Specification:

	UNITS	SLC
Rated Load	tonnes	0-1, 0-2, 0-3.25, 0-4.75, 0-6.5, 0-9.5, 0-12, 0-17, 0-25, 0-40, 0-55, 0-85, 0-120, 0-150, 0-200, 0-300, 0-400
Operating Modes	Tension Only	
Output Sensitivity	mV/V	Between 1.8 and 3.6
Non-Linearity	±%/Rated Load	<1 typical
Non-Repeatability	±%/Rated Load	<0.1
Temperature Effect on Zero	±%/Rated Load/°C	<0.01
Temperature Effect on Span	±%/Rated Load/°C	<0.01
Bridge Resistance	Ohms	350
Insulation Resistance	Megohms	>5000 @ 50Vdc
Excitation Voltage	Volts AC or DC	10 recommended (2-15 acceptable)
Operating Temperature Range	°C	-20 to +70
Compensated Temperature Range	°C	-10 to +50
Safe Overload	% of Rated Load	150
Ultimate Overload	% of Rated Load	300
Safety Factor:		3:1
IP Rating (Environmental Protection)		IP67
Weight (excluding cable)	kg	see dimensional table
Cable Length (as standard)	metres	10
Cable Type		4-core screened, PUR, glanded exit
Construction Material		High tensile carbon steel

Wiring Diagram:

Wire	Designation
 Red	+ve excitation
 Blue	-ve excitation
 Green	+ve signal
 Yellow	-ve signal
 Screen	To ground - not connected to load cell body



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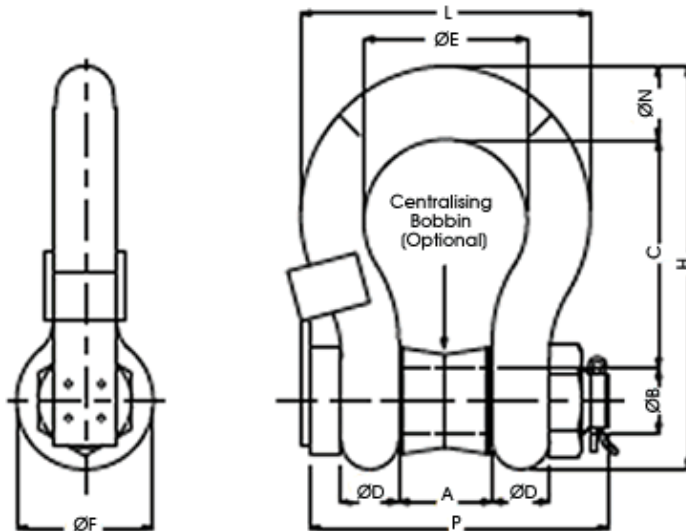
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Dimensions (mm):



Rating (tonnes)	A	ØB	C	ØD	ØE	ØF	H	L	ØN	P	Weight (kgs)	Resolution (tonnes)
0-1	16.8	11.2	36.6	9.65	26.2	23.1	63	44.2	9.65	90	2	0.001
0-2	20.6	16	47.8	12.7	33.3	30.2	83.5	58.5	12.7	97	2.3	0.002
0-3.25	26.9	19.1	60.5	16	42.9	38.1	106	74.5	17.5	96	2.8	0.005
0-4.75	31.8	22.4	71.5	19.1	51	46	126	89	20.6	111	3	0.005
0-6.5	36.6	25.4	84	22.4	58	53	148	102	24.6	122	3.2	0.005
0-9.5	46	31.8	108	28.7	74	68.5	190	131	31.8	156	5.2	0.01
0-12	51.5	35.1	119	31.8	82.5	76	210	146	35.1	171	8	0.01
0-17	60.5	41.4	146	38.1	98.5	92	254	175	41.1	201	12	0.02
0-25	73	51	178	44.5	127	106	313	225	57	236	18	0.02
0-40	73	50.8	178	44.5	127	106	313	225	57	236	18	0.05
0-55	82.5	57.2	197	50.8	146	122	347	258	61	269	25	0.05
0-85	105	69.9	267	66.5	184	148	455	324	79.2	351	45	0.1
0-120	127	82.5	330	76	200	165	546	365	92	387	85	0.1
0-150	133	95.5	372	95.5	229	203	625	419	105	448	125	0.1
0-200	184	121	397	95.5	279	267	743	533	152	580	215	0.2
0-300	213	152	495	121	330	305	895	635	172	610	364	0.2
0-400	255	175	650	165	325	350	1078	655	165	700	520	0.5



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Ordering Codes:

Core Product	Capacity (inc Engineering Units)	Cable Length (m)	Specials Code	Example Result
SLC	1t	10	000	SLC-1t-010-000
SLC	2t	10	000	SLC-2t-010-000
SLC	3.25t	10	000	SLC-3.25t-010-000
SLC	4.75t	10	000	SLC-4.75t-010-000
SLC	6.5t	10	000	SLC-6.5t-010-000
SLC	9.5t	10	000	SLC-9.5t-010-000
SLC	12	10	000	SLC-12t-010-000
SLC	17	10	000	SLC-17t-010-000
SLC	25	10	000	SLC-25t-010-000
SLC	40	10	000	SLC-40t-010-000
SLC	55	10	000	SLC-55t-010-000
SLC	85	10	000	SLC-85t-010-000
SLC	120	10	000	SLC-120t-010-000
SLC	150	10	000	SLC-150t-010-000
SLC	200	10	000	SLC-200t-010-000
SLC	300	10	000	SLC-300t-010-000
SLC	400	10	000	SLC-400t-010-000

Associated Products:



[TR150 Handheld Indicator](#)



[FUSION Large Digital Display](#)



[Intuitive4-L Panel-Mount Indicator](#)



[DSC-USB USB Signal Digitiser](#)



[ICA Miniature Strain Gauge Amplifier](#)



[SGA Signal Conditioner/Amplifier](#)