red rooster

INDUSTRIAL (UK) LTD

LOAD MEASURING EQUIPMENT

www.rriuk.com

INTRODUCTION

At Red Rooster we design and manufacture a range of digital load links up to 200 tonne, load shackles up to 500 tonne and compressive load cells up to 1500 tonne.

The load cells can be supplied with various types of displays – self indicating, remote indicating (with cable), and telemetry indicating (wireless display).

We also offer options for large displays for cranes, printer modules, PC interfaces and data logging to a spreadsheet with time and date.

Other types of load cells we offer include precision links, load pins, pallet weigh scales, digital crane weighers, hydrostatic crane weighers and Running Line Monitors.

We are also able to design special units, such as Marine Load Shackles, Weighing Systems, Weigh Platforms, Torque Cells and much more – please contact us if you have a special requirement for a load measuring device.

Our test rigs allow us to calibrate up to 400 tonne in Aberdeen, and 50T in West Bromwich, and are fully calibrated and NAMAS traceable.

Our qualified technicians can repair and calibrate most other manufacturer's load cells at our works. After inspection, a report and quotation is issued to enable the customer to decide on the viability of the repair. Once authorised by the customer, the repair is dealt with promptly and efficiently, to ensure a speedy return.

At Red Rooster, we also have a comprehensive range of Load Links, Load Shackles, Compression Load Cells and Running Line Monitors available for hire, which are supplied fully calibrated and are available at short notice.

We welcome your enquiries for load cells sales and hires, and our dedicated sales team will assist you with your enquiry to offer the best solution for your requirements.

Please contact us at:

Oldmeldrum (Aberdeenshire) : +44 (0) 1651 872 101
West Bromwich (West Midlands) : +44 (0) 121 525 4162
General Enquiries Email : sales@rriuk.com

Digital Data Sheets are available from our website: www.rriuk.com

CONTENTS

Load Links:

- Self Indicating Links – Type SWL
- Remote Indicating Links – Type SWLD
- Telemetry Links – Type SWLT
- Large Capacity Links

Load Shackles:

- Standard Load Shackles
- Marine Load Shackles

Compression Load Cells

Running Line Monitors

LOAD LINKS

TYPE : SWL / SWLD / SWLT

TENSILE LINK – SELF INDICATING (Type: SWL)

Manufactured in a range of capacities from 2 tonnes to 25 tonnes utilising high strength, low weight Duralloy, with grey chromic anodised finish. The links accept standard alloy steel shackles (U.S. Federal Specification RR-C-271D e.g. Crosby, Green Pin). High quality 'Micromeasurements' strain gauges are used throughout the range; resin bonded and sealed to the inner faces under controlled laboratory conditions. The high-density nylon cover plates facilitate protection against water and dust ingress to IP65.

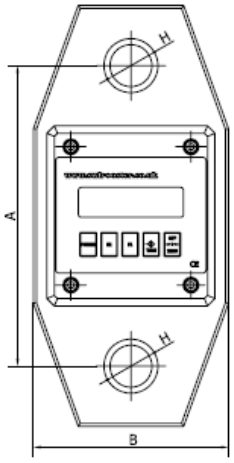
Standard Features:

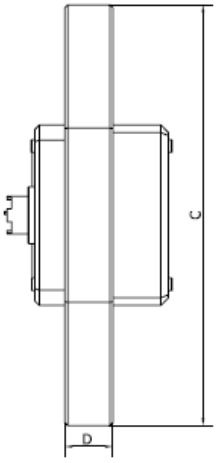
- Microprocessor based digital electronics.
- 11mm liquid crystal display.
- Self-diagnostic (diagnoses faults at 'switch on' and classifies fault with error code).
- Non-corruptible single point calibration.
- Powered by Nickel Metal Hydride battery.
- Up to 16 hours continuous use between charges.
- Mains battery charger with plug.
- Robust, nylon reinforced charge plug and socket.
- Robust carry case.

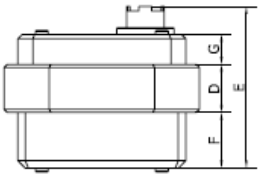
Functions:

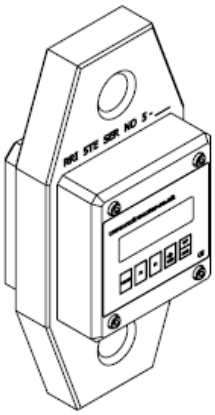
- On/Off
- Tare
- Push button zero
- Low battery indication

Technical Specification			
Capacity	2t / 5t	10T	25T
Hole Diameters (mm)	28	40	54
Shackle Capacity	6.5T	13.5T	25T
Resolution	1 kg	2 kg	10kg
Accuracy % FSD	0.5%	0.5%	0.5%
Ingress Protection	IP65		
Temp Range	-10°C to +40°C		
Weight	8kg	8kg	14kg









Model	A	B	C	D	E	F	G	HØ
SWL5	200	130	280	32	96	35	10	28
SWL10	230	145	330	48	112	35	10	40
SWL25	250	152	370	70	134	35	10	54

All measurements are in mm

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red rooster Industrial (UK) Limited,
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TENSILE LINK – REMOTE INDICATING (Type: SWLD)

Manufactured in a range of capacities from 2 tonnes to 25 tonnes utilising high strength, low weight Duralloy, with grey chromic anodised finish. The links accept standard alloy steel shackles (U.S. Federal Specification RR-C-271D e.g. Crosby, Green Pin). High quality 'Micromeasurements' strain gauges are used throughout the range; resin bonded and sealed to the inner faces under controlled laboratory conditions. The high-density nylon cover plates facilitate protection against water and dust ingress to IP65.

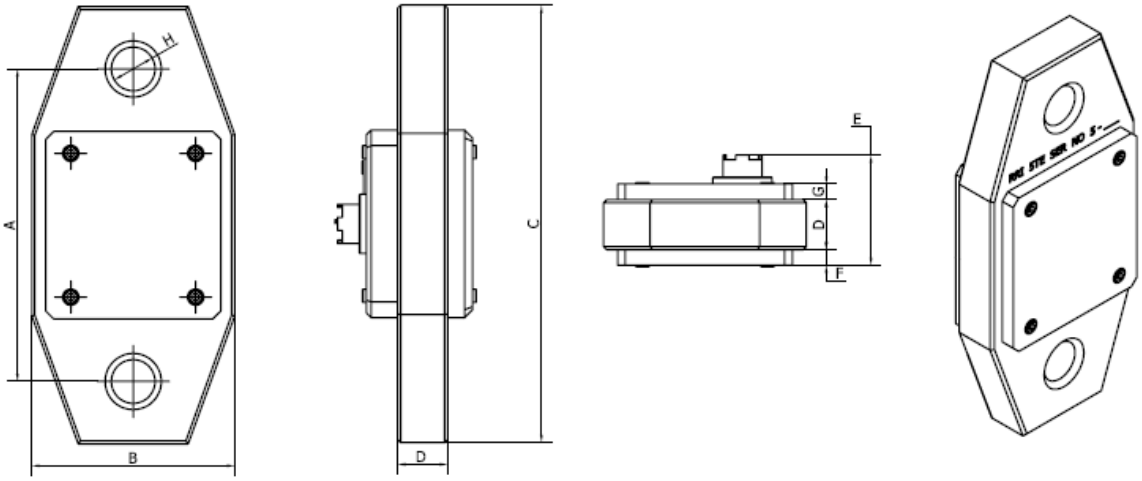
Standard Features:

- Microprocessor based digital electronics.
- 11mm liquid crystal display
- Self-diagnostic (diagnoses faults at 'switch on' and classifies fault with error code).
- Non-corruptible single point calibration.
- Powered by Nickel Metal Hydride battery
- Up to 16 hours continuous use between charges
- Mains battery charger with plug
- Robust, nylon reinforced charge plug and socket
- Robust carry case

Functions:

- On/Off
- Tare
- Push button Zero
- Low Battery Indicator
- Weight Cancel
- Restricted Access for Programming
- Peak Hold *(optional)*
- Time & Date *(optional)*
- Printer Output *(optional)*
- Mains Supplied LED Mounted Display *(optional)*

Technical Specification			
Capacity	2t / 5t	10T	25T
Hole Diameters (mm)	28	40	54
Shackle Capacity	6.5T	13.5T	25T
Resolution	1 kg	2 kg	10kg
Accuracy % FSD	0.5%	0.5%	0.5%
Ingress Protection	IP65		
Temp Range	-10°C to +40°C		
Weight	8kg	8kg	14kg



Model	A	B	C	D	E	F	G	HØ
SWLD5	200	130	280	32	71	10	10	28
SWLD10	230	145	330	48	87	10	10	40
SWLD25	250	152	370	70	109	10	10	54

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TENSILE LINK – TELEMETRY INDICATING (Type: SWLT)

Manufactured in a range of capacities from 2 tonnes to 200 tonnes utilising high strength, low weight Duralloy, with grey chromic anodised finish. The links accept standard alloy steel shackles (U.S. Federal Specification RR-C-271D e.g. Crosby, Green Pin). High quality 'Micromeasurements' strain gauges are used throughout the range; resin bonded and sealed to the inner faces under controlled laboratory conditions. The high-density nylon cover plates facilitate protection against water and dust ingress to IP65.

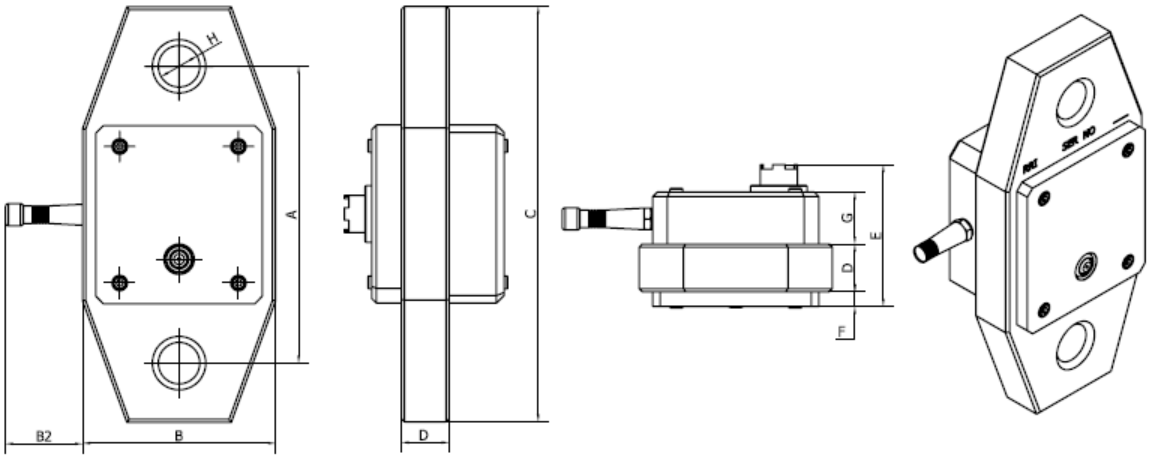
Standard Features:

- Microprocessor based digital electronics.
- 11mm liquid crystal display
- Self-diagnostic (diagnoses faults at 'switch on' and classifies fault with error code).
- Non-corruptible single point calibration.
- Powered by Nickel Metal Hydride battery
- Up to 16 hours continuous use between charges
- Mains battery charger with plug
- Robust, nylon reinforced charge plug and socket
- Robust carry case
- 18mm 6 digit LCD display with backlight

Functions:

- On/Off
- Tare
- Push button Zero
- Low Battery Indicator
- Weight Cancel
- Restricted Access for Programming
- Loss of Communications indicator
- Peak Hold *(optional)*
- Time & Date *(optional)*
- Printer Output *(optional)*
- Mains Supplied LED Mounted Display *(optional)*

Technical Specification			
Capacity	5t	10T	25T
Hole Diameters (mm)	28	40	54
Shackle Capacity	6.5T	13.5T	25T
Resolution	1 kg	2 kg	10kg
Accuracy % FSD	0.5%	0.5%	0.5%
Ingress Protection	IP65		
Temp Range	-10°C to +40°C		
Weight	8kg	8kg	14kg



Model	A	B	B2	C	D	E	F	G	HØ
SWLT5	200	130	~52	280	32	71	10	10	28
SWLT10	230	145	~52	330	48	87	10	10	40
SWLT25	250	152	~52	370	70	109	10	10	54

All measurements are in mm

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TENSILE LINK – CABLED & TELEMETRY INDICATING (50T – 200T)

Manufactured in a range of capacities from 2 tonnes to 200 tonnes utilising high strength P20 Steel, with grey chromic anodised finish. The links accept standard alloy steel shackles (U.S. Federal Specification RR-C-271D e.g. Crosby, Green Pin). High quality 'Micromeasurements' strain gauges are used throughout the range; resin bonded and sealed to the inner faces under controlled laboratory conditions. The high-density nylon cover plates facilitate protection against water and dust ingress to IP65.

Standard Features:

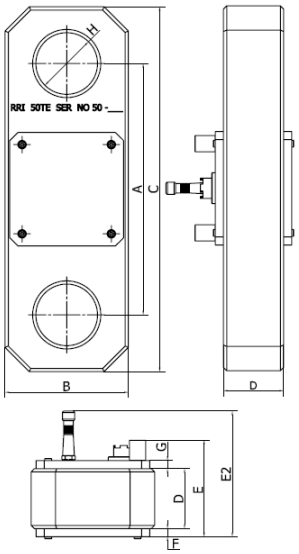
- Microprocessor based digital electronics.
- Powered by Nicad battery
- Self-diagnostic (diagnoses faults at 'switch on' and classifies fault with error code).
- Coded, digital FM wave band
- Powered by Nickel Metal Hydride battery
- Up to 24 hours continuous use between charges
- Mains battery charger with plug
- SWLPC(J) remote radio display (200m range with aerial / 100m without aerial)
- Robust carry case
- 18mm 6 digit LCD display with backlight

Functions:

- On/Off
- Tare
- Push button Zero
- Low Battery Indicator
- Weight Cancel
- Restricted Access for Programming
- Loss of Communications indicator
- Peak Hold *(optional)*
- Time & Date *(optional)*
- Printer Output *(optional)*
- Mains Supplied LED Mounted Display *(optional)*

Technical Specification

Model	Display	Capacity	Hole Diam (mm)	Fits Shackle	Resolution	Accuracy % FSD	Ingress Protection	Temp Range	Weight
SWLD50	Cable	50T	76	55T	10 kg	1.0%	IP65	-10°C to +40°C	45 kg
SWLT50	Telemetry								
SWLD100	Cable	100T	102	120T	50 kg				68 kg
SWLT100	Telemetry								
SWLD150	Cable	150T	120	150T	50 kg				156kg
SWLT150	Telemetry								
SWLD200	Cable	200T	130	200T	100 kg				200kg
SWLT200	Telemetry								



Capacity	A	B	C	D	E	E2	F	G	HØ
50T	310	152	450	74	119	155	10	10	76
100T	380	165	560	127	127	180	10	10	102
150T	420	192	640	127	127	180	10	10	120
200T	450	230	720	127	127	208	10	10	132

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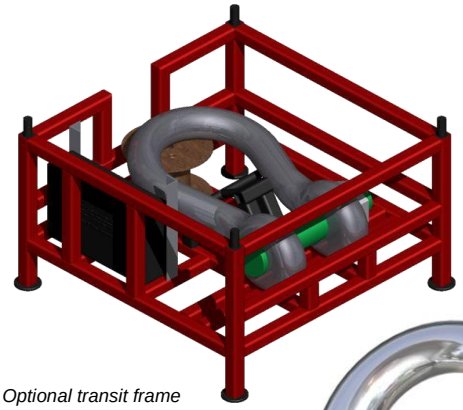
LOAD SHACKLES

LOAD CELL SHACKLE - SWLS/SWLST SERIES

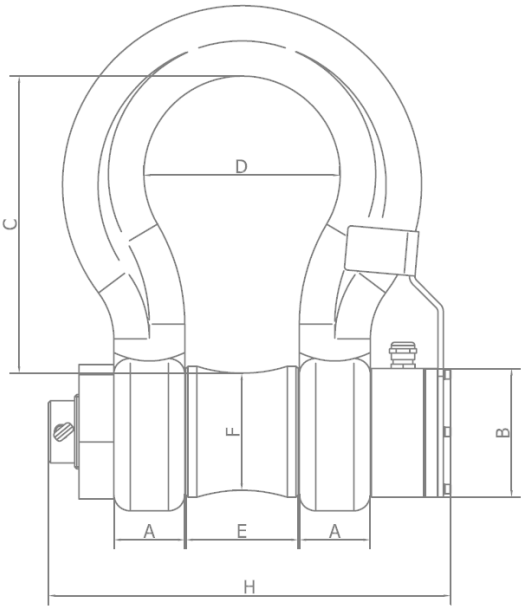
Produced in capacities from 5 to 500 tonnes. The shackle body is manufactured of galvanised alloy steel. The shackle pin (nickel steel up to 35 tonnes, Alloy steel on larger capacities) is retained in the shackle body by means of a nut and split pin, and an anti rotation device is incorporated in the pin to ensure correct alignment. The pin itself is through bored and strain gauges are internally resin bonded at both shear planes. A close fitting tapered steel bobbin is included to ensure that the load is applied through the midline of the shackle pin. Load cell shackles are available in both cabled ***(SWLS)*** *and radio telemetry* ***(SWLST)*** *versions.*
Up to 50 tonnes capacity accuracy is better than 0.5% F.S. over 50 tonnes accuracy is better than 1.0% F.S

Standard Features:

- Strain gauges fitted within the bore of the shackle pin for maximum protection
- Bow or Dee Shackle to US Federal Specification RRR-C-271D
- IP65 Protection
- Glanded cable 0.5 metres with protective hose
- Robust Nylon reinforced plugs and sockets with locking rings
- Interface to SWLPC display SWLT Frequency 433.92mH
- Mains battery charger with plug
- SWLPC(J) remote radio display (200m range)
- Robust carry case for Display Unit
- 18mm 6 digit LCD display with backlight



Optional transit frame



Technical Specification												
Model	**Display**	**Capacity**	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**Weight**	**Temp Range**
SWLS50	Cable	50T	66	70	255	177	105	95	110	269	~41kg	-10°C to +40°C
SWLST50	Telemetry									440		
SWLS85	Cable	85T	94	83	373	239	150	118	139	480	~90kg	
SWLST85	Telemetry									551		
SWLS100	Cable	100T	94	94	373	239	150	118	139	480	~90kg	
SWLST100	Telemetry									551		
SWLS150	Cable	150T	100	105	380	265	165	150	170	510	~194kg	
SWLST150	Telemetry									680		
SWLS250	Cable	250T	115	135	495	305	200	200	210	620	~450kg	
SWLST250	Telemetry									720		
SWLS300	Cable	300T	120	120	600	305	200	220	250	665	~842kg	
SWLST300	Telemetry									720		

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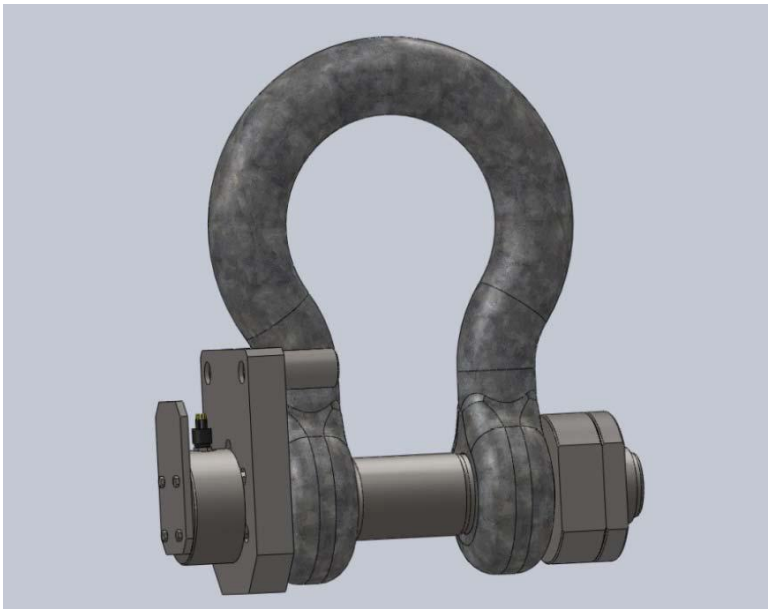
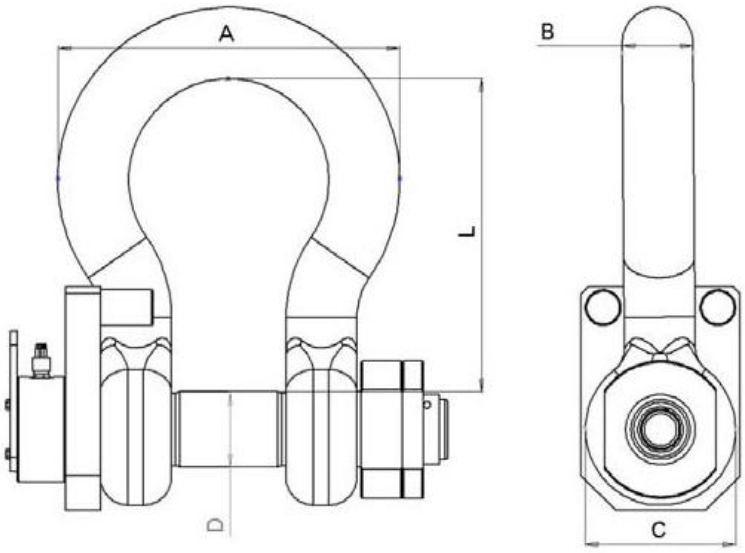
MARINE LOAD CELL SHACKLE - SWLSM SERIES

Produced in capacities from 50 to 500 tonnes. The shackle body is manufactured of galvanised alloy steel. The shackle pin is made from Stainless Steel and is retained in the shackle body by means of a nut and split pin. An anti rotation device is incorporated in the pin to ensure correct alignment. The pin itself is through bored and strain gauges are internally resin bonded at both shear planes. A close fitting tapered steel bobbin is included to ensure that the load is applied through the midline of the shackle pin. Our range of Marine Load Cell Shackles are proof tested to 200% of the Shackle WLL and come with a 5:1 factor of safety. Operational Temperature Range -20℃ to +80℃.

Standard Features:

- Strain gauges fitted within the bore of the shackle pin for maximum protection
- Bow or Dee Shackle to US Federal Specification RRR-C-271D
- Shackle Pin sealed to IP68 Protection
- Robust Nylon reinforced plugs and sockets with locking rings
- Interface to SWLPC display
- Mains battery charger with plug
- Robust carry case for Display Unit
- 18mm 6 digit LCD display with backlight





DIMENSIONS (in mm)						
Model	**Capacity**	**A**	**B**	**C**	**D**	**L**
SWLSM50	50T	253	53	122	57	197
SWLSM75	75T	327	69	145	70	267
SWLSM100	100T	365	79	165	82.5	330
SWLSM150	150T	468	104	229	108	368
SWLSM200	200T	533	114	267	121	397
SWLSM300	300T	635	127	305	152	495
SWLSM400	400T	660	152	356	178	572
SWLSM500	500T	711	191	381	191	645

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COMPRESSION LOAD CELLS

Compression Load Cells (Type: SWLC5500)

Manufactured in a range of capacities from 0.5 kN to 50 kN from high strength Aluminium. Can be wired for tension or compression. High quality gauges are used throughout the range to deliver a high accuracy. High standard IP protection against water and dust ingress to IP66.
Supplied as standard with an individual hand held display per load cell, or can be supplied as a system with multiple cells configured to one display. Various fittings can be screwed into the M12/M20 threaded holes, such as Eye Bolts, Clevises and Rods.

Technical Data:

Standard load ranges	kN	0.5,1,2.5,5,10,20,50
Safe service load	%	150
Ultimate load	%	300
Input resistance	ohms	380 +/-30
Output resistance	ohms	350 +/-2
Creep after 30 minutes (20 deg C)	%	<+/- 0.05%
Operational temperature range	deg C	-20 to +70
Environmental protection		IP66
Cable length standard	metres	3
Insulation	G ohms	>2 at 100V.dc

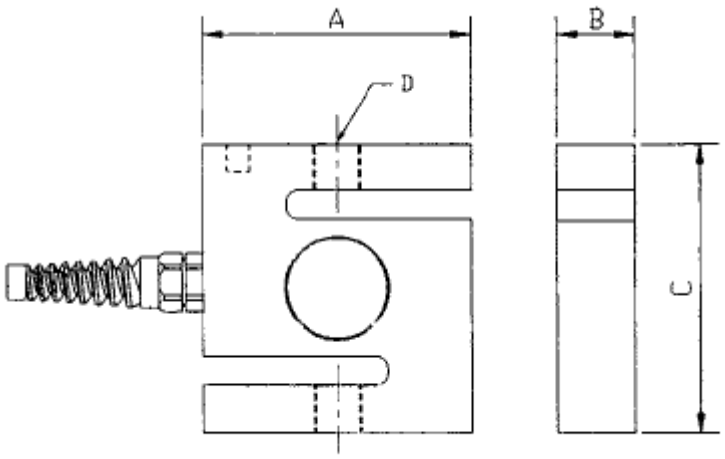
Note: All percentages related to Full Rated Load

Electrical Connections:

6 Core Cable, Wired in Compression Mode

Red + Input	Yellow - Output
Blue - Input	Green + Output

Black/White – preset cal ref
Screen not connected to loadcell.



Capacity	A	B	C	D
0 – 0.5kN, 1, 2.5, 5kN	70.0	25.0	75.0	M12
0 – 10, 20kN	75.0	30.0	100.0	M20
0 – 50kN	100.0	30.0	120.0	M20

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Compression Load Cells (Type: SWLC750)

Manufactured in a range of capacities from 0.5Te to 20Te from high strength Stainless Steel with an Intergrated Load Button. High quality gauges are used throughout the range to deliver a high accuracy. High standard IP protection against water and dust ingress to IP66.
Supplied as standard with an individual hand held display per load cell, or can be supplied as a system with multiple cells configured to one display.

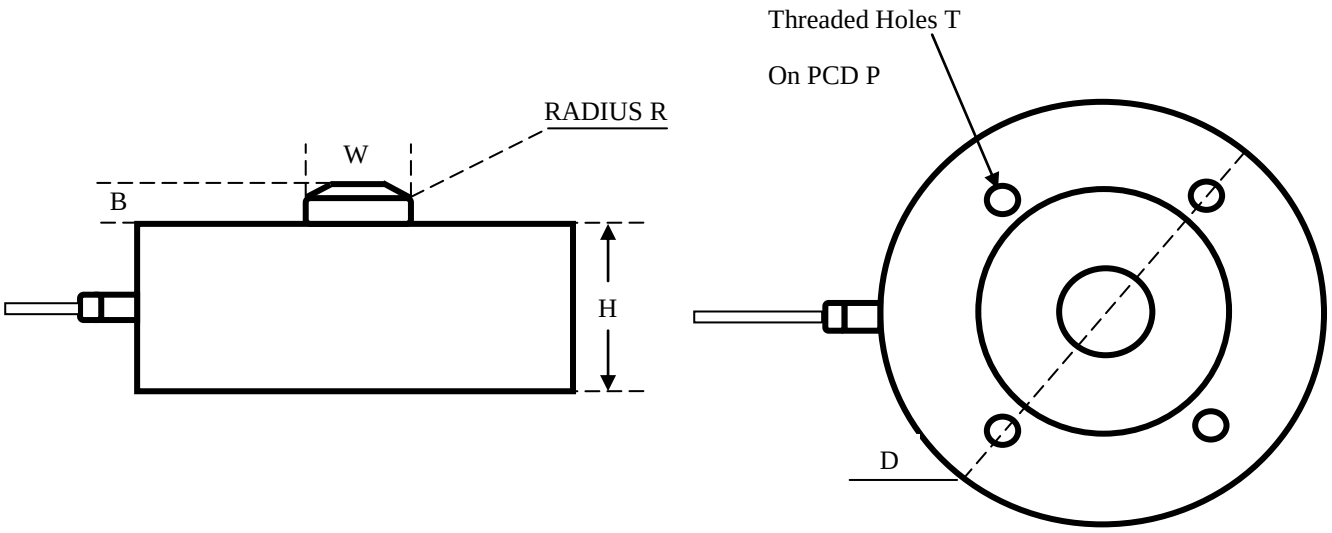
Technical Data:

Standard load ranges	te	0.5, 1, 1, 2, 5, 10, 20
Safe service load	%	150
Ultimate load	%	300
Input resistance	Ω	750 +/- 20
Output resistance	Ω	700 +/- 5
Operational temperature range	ºC	- 20 to +70
Environmental protection		IP 68
Insulation	G Ω	>2 at 100V dc
Construction		stainless steel

Note: All percentages related to Full Rated Load

Electrical Connections:

Red + Input	Yellow - Output
Blue - Input	Green + Output
Screen O/C	



Capacity (Tonne)	H	B	W	R	D	T	P
0.5, 1	21	4	10	50	59	M3 x 7	42
2, 5, 10, 20	35	5	20	150	98	M6 x 18	72

All measurements are in mm

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Compression Load Cells (Type: SWLC9500)

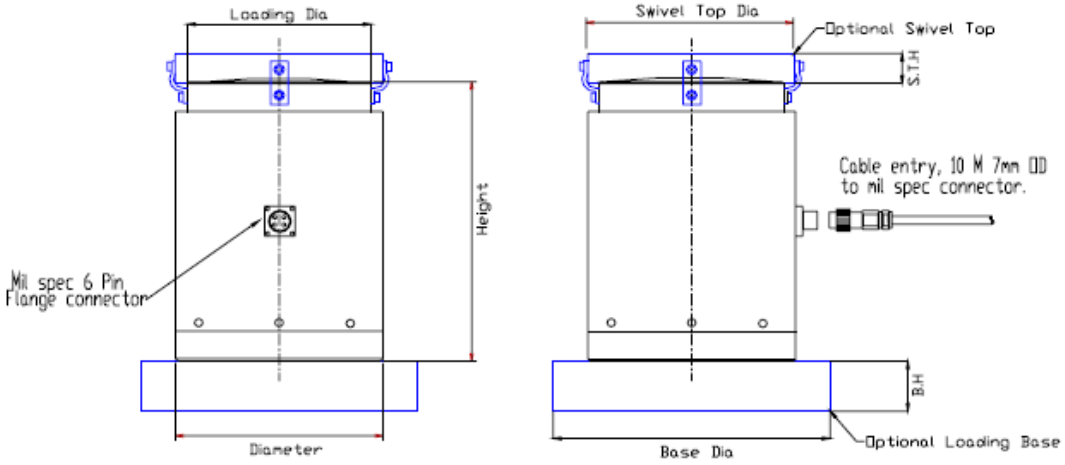
Manufactured in a range of capacities from 25Te to 1500Te from High Strength Stainless Steel. High quality gauges are used throughout the range to deliver a high accuracy. High standard IP protection against water and dust ingress to IP68. Supplied as standard with an individual hand held display per load cell, or can be supplied as a system with multiple cells configured to one display.

Technical Data:

Standard load ranges	Te	25, 50, 100, 200, 300, 400, 500, 1000, 1500.
Safe service load	%	150
Ultimate load	%	500
Safe side load	%	100
Input resistance	ohms	700 (500-1500te 1400Ω)
Output resistance	ohms	700 +/-2
Creep after 30 minutes (20 deg C)	%	<+/- 0.05%
Operational temperature range	deg C	-20 to +80
Environmental protection		IP67
Cable length standard	metres	10
Insulation	G ohms	>2 at 100V.dc

Note: All percentages related to Full Rated Load

Connector Fitted (option): IP 68 6 Way Amphenol Connector
Pin A + input
Pin E + output
Pin C - input
Pin F - output



Cell Type	Nominal Rated Load	Height	Diameter	Loading Dia	Base Dia	B.H	Swivel Top Dia	S.T.H
Comp 25	25	100	75	60	125	30	75	15
Comp 50-100	100	150	100	80	150	50	100	20
Comp 200	200	180	127	110	150	50	127	30
Comp 300	300	180	150	130	200	50	150	30
Comp 400	400	180	150	136	200	50	150	38
Comp 500	500	300	203	170.5	265	50	203	50
Comp 1000	1000	425	290	250	335	75	290	50
Comp 1500	1500	490	350	300	400	100	350	75

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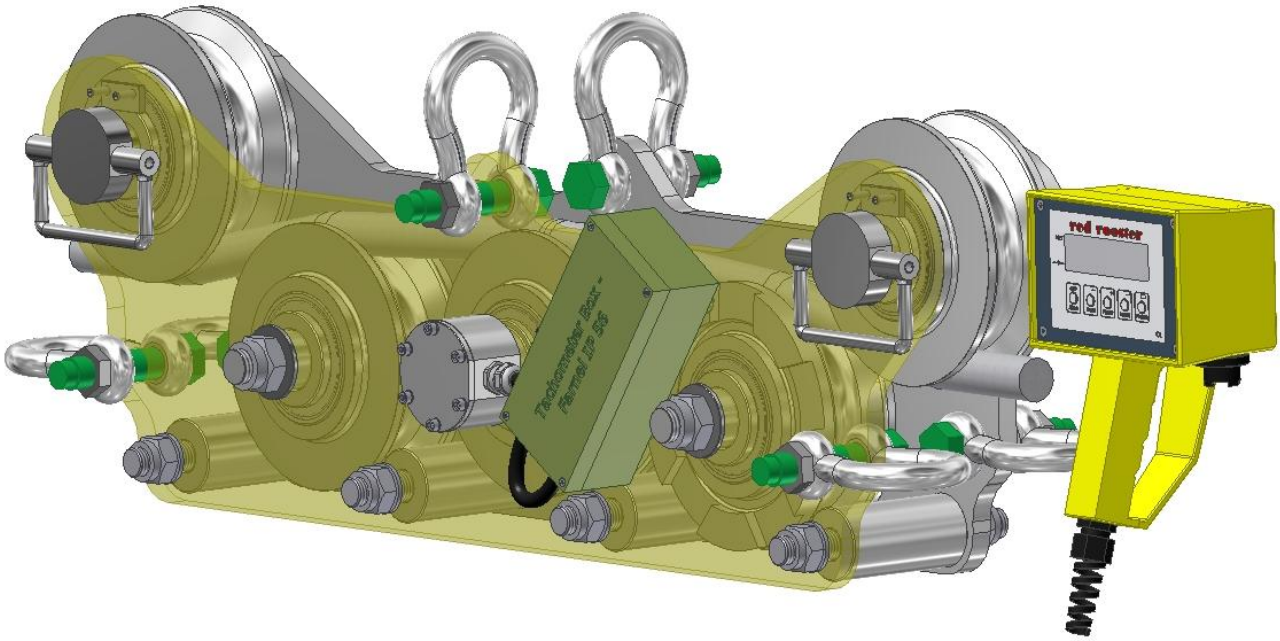
INDUSTRIAL (UK) LTD

RUNNING LINE MONITORS



RUNNING LINE MONITOR (SWLRLM)

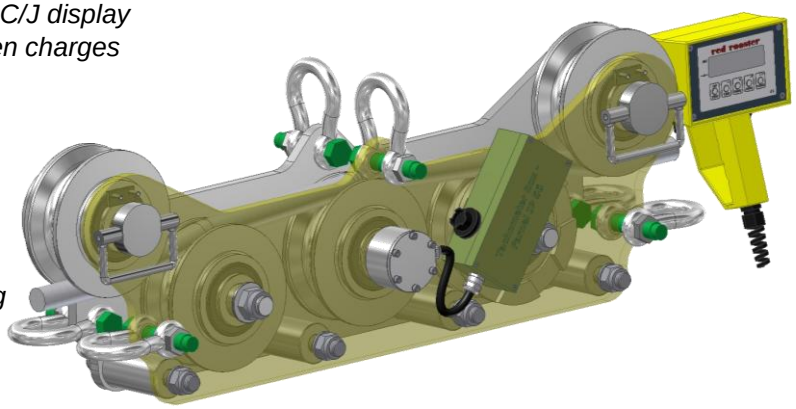
Produced to accept cable diameters from 13mm to 83mm, the SWLRLM system electronically monitors the load on a running line (winch, crane, etc) and is displayed digitally. It can optionally monitor the length of the line out and speed (including direction) in any engineering units. It's modular design enables facilities to be added or removed as requirements change.

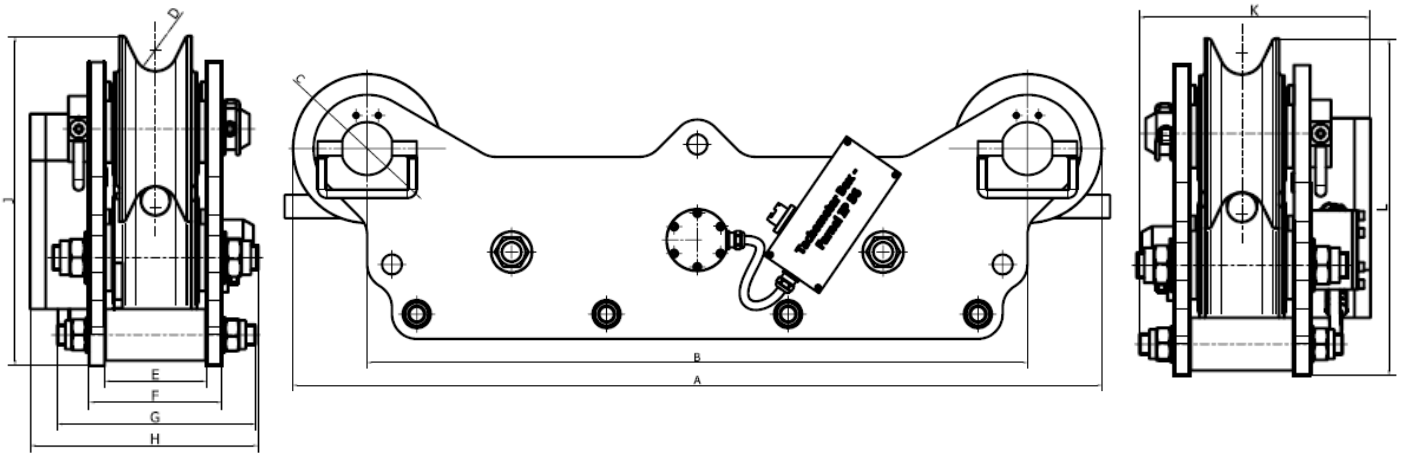
Standard Features:

- *Five Wheel Construction guides wire smoothly onto the monitoring wheel*
- *Wire may be fitted without tools, using a gloved hand*
- *Load pin forms shaft of centre wheel*
- *Strain gauges mounted in shaft bore (High impact protection & IP65)*
- *Wheels mounted on Roller Bearings with Grease Nipples*
- *Heavily Galvanised Frame*
- *Readily interfaces with SWLPC/J display*
- *10-12 hour battery life between charges*
- *Battery Charger*
- *10m Extension Cable*

Available Options:

- *Line Speed Monitoring*
- *Line Out Monitoring*
- *Mains Operation*
- *PC Interfacing & Data Logging*
- *Paperless Chart Recorder*
- *RS232 Output*





Technical Specification													
Model	**Suit Wire Rope Diameter**	**Max Capacity**	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**J**	**K**	**L**
RLM13	13mm – 19mm	5 Tonne	980	800	180	30	98	128	192	220	320	218	320
RLM20	16mm – 26mm	15 Tonne	980	800	180	30	98	128	192	220	320	218	320
RLM35	28mm – 40mm	35 Tonne	980	800	180	42	98	128	192	220	320	218	320
RLM50	42mm – 52mm	50 Tonne	980	800	180	To suit	98	128	192	220	320	218	320
RLM88	54mm – 88mm	150 Tonne	1446	1118	230	To suit	101	133	196	222	395	410	395

All measurements are in millimetres for reference only.

For quotation purposes only. Not drawn to scale. This drawing may not include all options offered on the quotation

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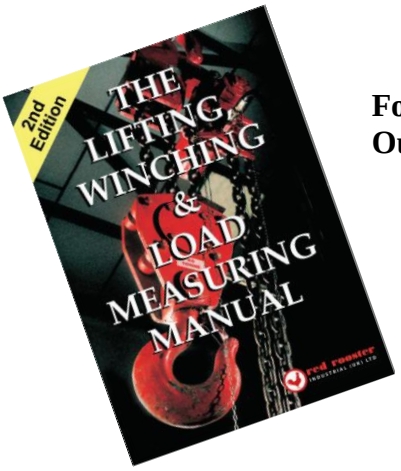

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