

Product catalogue

Load measurement and monitoring solutions



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Get in touch

Contact our head office in Aberdeen to speak to a member of the team about sales, hires, repairs or bespoke project management and consultancy.

Scotload

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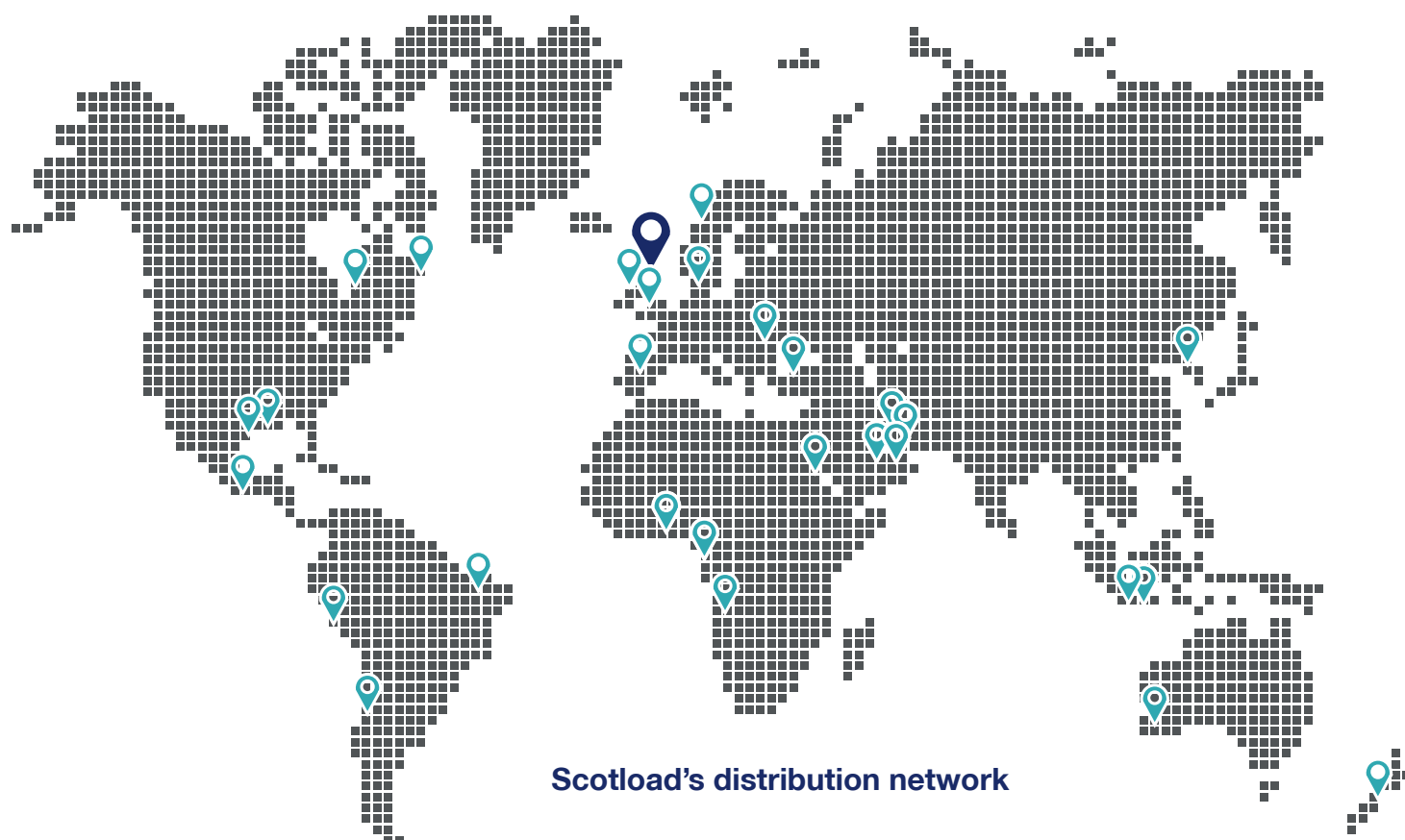
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Register for our mailing list to stay up-to-date with Scotload's latest product developments and exciting special offers!

Visit **www.scotload.com** to register your interest.





Specialists in load measurement and monitoring technology, Scotload is the supplier of choice for rigging, lifting and load testing operators worldwide.

Scotload is an expert in load measurement and monitoring solutions across many different industries including - oil and gas, marine, renewables and construction.

With a large mixed discipline engineering team, we have invested in developing the innovative and award winning SmartLoad® technology to meet the requirements of our customers today. We are proud to be able to offer this technology, stocked in global locations for immediate dispatch anywhere in the world.

As part of James Fisher and Sons plc, we have a wealth of global resources available at our fingertips to support our customers. So whatever you need and wherever you need it, we will work with you to identify the best possible solution for your application.

Our reputation is built on quality products and services, engineered to the highest standards and dispatched in minutes.

- We offer **fast delivery** ex-stock for immediate global distribution
- All Scotload products are **designed and manufactured in the UK** to the highest standards of quality
- **In-house engineering expertise** enables us to develop solutions to meet our customer's exacting requirements
- We are world leaders in supporting a vast range of **complex load monitoring solutions**
- Specialists in **hazardous area** and **subsea** applications
- We provide a **high standard of service** with a single point of contact for all your project enquiries, from concept to delivery
- We maintain a generous stock of products which are available for **purchase or hire**

Innovation | Excellence | Delivery

Scotload's calibration and repair service is available for both Scotload own and third party products

- We have unrivaled experience in calibrating load equipment and we also offer a popular in-house repair service.
- We recognise that repairs often need to be completed urgently in order to get operations back on track. In addition to our usual rapid turnaround, we also offer a fast track service if required.
- We welcome third party products in addition to our own, and all equipment receives the same high standard of care.
- We have a range of testbeds with load capacities up to 1700 tonnes. All equipment is controlled under our quality management system, and our in-house testbeds are all fully certified and traceable to UKAS standards.

With in-house expertise and a wealth of resources available we provide a quick resolution for your technical issues.

Scotload has an enviable reputation for technical innovation and meeting challenging objectives through the delivery of creative and cost effective solutions. We work with you to fully understand your application and monitoring objectives using our significant experience to deliver improved operational performance.

Stock available for immediate dispatch

We maintain a large quantity of stock which is available for both hire and sale and can be dispatched within minutes. We package all of our products with the greatest of care ensuring your equipment is delivered safely and provide fast and flexible delivery options anywhere in the world.

Tailored monitoring solutions

Our highly skilled team of professionals have the expertise required to support your needs during all phases of your project. We offer bespoke product design and manufacturing for specific client requirements and we can also provide a complete project management capability to manage delivery to time, quality and cost, while ensuring compliance to the highest of safety regulations.

Installation and commissioning

Scotload's dedicated engineers provide support with preparatory tasks, installation, site testing and commissioning. Upon receipt of requirements and requested dates, a single point of contact will issue a quotation and comprehensive pre-site check-list.

Hire fleet

We have a generous stock of products available for hire with new items being added regularly. Our hire service is ideal for both short and long term loans of equipment, cutting out the need for large up-front purchase costs.

Due to continuous development, Scotload reserves the right to change specifications without notice.





Hazardous area load measurement

Scotload is a specialist in load measurement solutions for hazardous areas with a range of products and solutions available for Zones 0,1 and 2.

All of our hazardous area products are supplied with full **ATEX** and **IECEX** certifications to **EN/IEC 60079** standards. Our team are also highly knowledgeable in working with **UL**, **Kosha** and other hazardous area classifications worldwide.

We have a wide range of Zone 1 and 2 products available ex-stock for immediate dispatch. Our experienced team is on hand to offer guidance and support to customers looking for a safe and compliant, off-the-shelf or bespoke solution for these demanding environments.

SmartLoad 1Ex® and 2Ex® wireless technology

We have developed a range of wireless products which incorporate our SmartLoad® technology (including in-sensor data logging) and are fully compliant to the very latest ATEX and IECEx standards.

This technology has been developed with a range of display options including handhelds which can also be used in the relevant hazardous areas. These systems are fully flexible, working with all the safe area SmartLoad® products and software packages.



Safety is our number one priority. All Scotload products are rigorously tested and inspected.

Safety and reliability are critical factors in the lifting industry and we operate to **ISO 9001:2008** accredited quality management system to ensure product excellence. Our products have been designed using the latest finite element analysis software to optimise strength by design, resulting in industry leading factors of safety. The safety factors have been proven through real life destructive testing of all products, giving our customers confidence in case of an unintentional overload event.

All products are proof load tested individually prior to dispatch. Our hazardous area products are fully certified by **SGS Baseefa** - the leading, internationally recognised certification body for explosion protected equipment, delivering **IECEX**, **ATEX** and **DSEAR** standards to customers around the world.

We are also members of **LEEA** - Lifting Equipment Engineers Association - the leading representative body for the lifting industry worldwide.

A revolution in load measurement

SmartLoad®

Improve your workplace safety, reduce downtime and lower costs.

Our innovative and award winning SmartLoad® technology can be retrofitted to your existing equipment, removing the need for expensive full system upgrades.

The handset:

- Only one handset required to connect to links, shackles and other load cells
- Automatically detects all cells in range
- Live simultaneous display of multiple cells
- Displays average and total readings
- Intuitive menu driven flexible display
- Optional start / stop logging from handset
- Peak reading and tare display
- Increased range
- Reduced interference
- Variable overload audio alarm
- Individual load cell naming facility

The load cell transmitter:

- On-board intelligence
- On-board memory
- Retrofit to existing load cells
- Date and time stamp for all usage events
- Peak readings recorded and logged
- Overload events recorded and logged
- Variable sample rates to suit application
- Low power for long battery life
- Calibration records held on transmitter



Scotload's ground-breaking SmartLoad® monitoring technology provides users with total system control and flexibility.

SmartLoad® uniquely incorporates intelligence and memory directly on the load cell itself, increasing functionality while enhancing the efficiency and safety of your lifting operations.

SmartLoad® delivers a standard technology platform for use across a range of products. Requiring only one handset to connect links, shackles and other load cells, it reduces operational costs. Fully compatible with existing equipment, SmartLoad® can also be retrofitted, removing the need for expensive full system upgrades.

Utilising the latest wireless technology for increased range and improved signal reliability, SmartLoad® provides assurance, improves data accuracy and enhances workplace safety as well as reducing downtime.

Features and benefits of SmartLoad®:

- **Logging function** controlled from handset - no need for on-site laptop
- **Safety assurance** - automated overload monitoring
- Uniquely incorporates intelligence on load cells and handsets giving **total system control and flexibility**
- Significantly **increased range** and **signal reliability** over existing industry standard technology
- No training required - simple **'plug-and-play'** system
- No pairing required - **'select and connect'** technology
- Avoids downtime and unnecessary wastage - built in **system redundancy**
- Easily integrated with existing monitoring systems



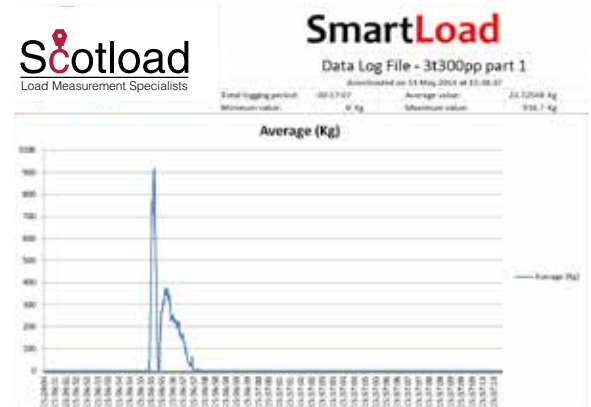
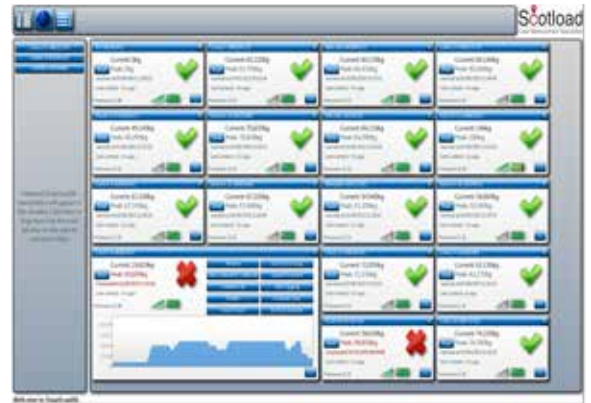
SmartLoad® software is available from entry level viewing to advanced detailed analysis depending on your requirements.

Our intelligent SmartLoad® software automatically detects all load cells in range with no pairing required for instant display of results.

With four options to choose from, Scotload can provide a data logging or analysis system to suit your load testing needs, including the ability to calibrate your own equipment. Results are automatically exported into Excel and reports are displayed in an easy to understand format for immediate sharing.

Features and benefits of SmartLoad® logging software:

- Displays live readings of up to 128 cells simultaneously
- Real-time trace provides overview of the last 100 readings for trend analysis
- Monitors peak readings from each device
- Instant overload notification
- Automatic updates - remotely upgrades cell and handset firmware
- Downloadable event logs and cell reading data (Excel-compatible)
- Controllable cell operating speeds and overload limits
- Remote control cell logging
- Monitors battery life of remote cells, avoiding downtime and unnecessary wastage



SmartLoad® software versions:

Viewer: This entry level option enables PCs to be used like a handset and facilitates firmware upgrades to load cells and displays.

Logging: Adds load monitoring data logging functionality to the viewer software and can view multiple load cells at once.

Calibration: This option features the ability for operators to calibrate their equipment and reset overload events.

Asset management: This advanced software package includes all functionality designed for full fleet management of your load monitoring equipment.

*Extra charge applies for log chart customisation

	Viewer	Logging	Calibration	Asset management
Single cell view	X		X	
View up to 128 cells		X		X
Overload warning reset			X	X
Set safety overload limit			X	X
View calibration certificate	X	X	X	X
Update firmware	X	X	X	X
Calibrate load cells			X	X
Can wake / sleep cells	X	X	X	X
Predefined logging speed profiles		X		X
Adjustable logging speed parameters		Separate option		X
Start / stop logging		X		X
View / download log files		X		X
Customised log chart with customer branding*		X		X
View / download event log		X		X
Delete / reset event log				X
Adjustable alarm limit	X	X	X	X
Change cell names	X	X	X	X
View / reset peak reading	X	X	X	X

Load monitoring displays | Available with SmartLoad® technology

Scotload has a wide range of load monitoring indicators and handsets to match both high performance and budget requirements.

From standard battery powered hand held collectors to wireless units, mains powered indicators and hazardous area approved displays, Scotload has a solution to meet any load measurement application.

Intuitive SmartLoad® displays

Menu driven with flexible displays, Scotload's handsets incorporate our innovative and award winning SmartLoad® technology. Fully intuitive, they require no training so are suitable for immediate use.

Options

- Available with SmartLoad® technology
- Cabled or wireless
- Hazardous area Zone 1 and 2
- Handset and / or permanent display
- Signal boosters available for extended wireless range

Features and benefits

- No pairing required - automatically scans for all local cells
- Increased range and reduced interference
- Live simultaneous display of multiple cells
- Average and total readings displayed
- Intuitive menu driven flexible display
- Start / stop logging from handset (depending on option)



Load pins | Available with SmartLoad® technology

Scotload's long-lasting load pins deliver high accuracy under the most challenging of operations.

Harsh environments are our speciality. Manufactured from high tensile stainless steel, our load pins are suitable for hazardous area and subsea applications, and can be easily retrofitted into existing systems.

We provide an in-house calibration service up to 1700 tonnes, traceable to national standards, as well as a customised design service to suit specialised requests.

Options

- Available with SmartLoad® technology
- Cabled or wireless
- Hazardous area Zone 0, 1 and 2
- X-Y gauging available
- Radial or axial cable exit

Features and benefits

- Internally gauged, fully welded and hermetically sealed
- Short lead time
- Easily retrofitted
- Highly accurate
- In-house custom design and manufacturing

Scotload load pins are manufactured to suit our customers specific requirements



Crane load pins

Specially designed to be incorporated into many locations within a crane structure, depending on its layout. They can be retrofitted, replacing any existing load bearing pins with ease, and we can also supply a complete crane weighing and overload system with the addition of a display / indicator.

Subsea load pins

Specially developed to withstand harsh offshore and subsea applications. Environmentally sealed to IP67 as standard with higher ratings available on request, our subsea load pins can be fitted with wet mateable connectors and are pressure tested to suit different depths.

Industrial load pins

Specially designed to withstand the harsh conditions found in industrial environments including extreme temperatures, dust, moisture and vibration.

Typical specifications	mV/V output	mA output	Wireless output
Rated load	As required		
Proof load	150% of rated load		
Non linearity	< ± 1% of full scale		
Non repeatability	< ± 0.01% of full scale		
Zero balance	< ± 0.01% of full scale		
Environmental protection	IP67 / IP68		
Safety factor	As required		
Operating temperature	-25°C to +70°C		
Storage temperature	-30°C to + 80°C		
Output signal	mV/V	4-20mA	Wireless
Electrical connection	4 core	2 or 3 wire	N/A
Cable connection	Gland or connector		N/A
Cable length	5m as standard		N/A
Recommended excitation voltage	10V	N/A	N/A
Maximum excitation voltage	15V	N/A	N/A
Recommended supply voltage	N/A	24V	N/A
Maximum excitation voltage	N/A	30V	N/A
Bridge resistance	700 Ohm	N/A	N/A
Sensitivity	1.0mV/V to 2.0V/V nominal	N/A	N/A
Data logging	N/A	N/A	On load cell
Battery type	N/A	N/A	2 or 4 x AA
Active battery life	N/A	N/A	Up to 350 hours
Standby battery life	N/A	N/A	Up to 1700 hours
Telemetry frequency	N/A	N/A	2.4Ghz ISM
System range	N/A	N/A	Up to 350m
Sampling rate	N/A	N/A	10Hz (500Hz max)



SmartLoad® load pins are available for use in hazardous area Zones 0, 1 and 2



Load links | Available with SmartLoad® technology

Scotload's cost effective load links enable accurate and reliable load monitoring.

Our links are designed to minimise stress concentrations and maximise strength. The design incorporates features which increases reliability, reduces the risk of damage and ensures ease of use.

Manufactured from high tensile, aerospace grade anodised aluminium, our load links are suitable for use across all industry sectors including marine and offshore. They are fully Finite Element Analysis (FEA) optimised and destructively tested.

We have a range of links in stock, up to 500 tonnes for purchase or hire, and ready for immediate dispatch. Larger capacities are available on request and all of our load links are supplied with full calibration and proof load certificates.



Options

- Available with SmartLoad® technology
- Cabled or wireless
- Hazardous area Zone 1 and 2
- Built in display - Visilink

Features and benefits

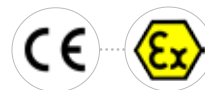
- Industry leading safety factor
- In link data logging
- In stock available for immediate dispatch
- Latest wireless technology
- Internal antenna
- Compatible with SmartLoad® COG system
- Corrosion resistant design
- Use with any SmartLoad® hand held or wall mounted display

Typical specifications	mV/V output	mA output	Wireless output
Rated load		As required	
Proof load		150% of rated load	
Non linearity		< ± 0.25% of full scale	
Non repeatability		< ± 0.05% of full scale	
Zero balance		< ± 0.05% of full scale	
Environmental protection		IP67 / IP68	
Safety factor		5x minimum	
Operating temperature		-25°C to +70°C	
Storage temperature		-30°C to + 80°C	
Cable connection	Gland or connector		N/A
Cable length	5m as standard		N/A
Output signal	mV/V	4-20mA	Wireless
Electrical connection	4 core	2 or 3 wire	N/A
Recommended excitation voltage	10V	N/A	N/A
Maximum excitation voltage	15V	N/A	N/A
Recommended supply voltage	N/A	24V	N/A
Maximum excitation voltage	N/A	30V	N/A
Bridge resistance	1000 Ohm	N/A	N/A
Sensitivity	1.5mV/V nominal	N/A	N/A
Data logging	N/A	N/A	On load cell
Battery type	N/A	N/A	2 x AA
Active battery life	N/A	N/A	Up to 200 hours
Standby battery life	N/A	N/A	Up to 1400 hours
Telemetry frequency	N/A	N/A	2.4Ghz ISM
System range	N/A	N/A	Up to 350m
Sampling rate	N/A	N/A	10Hz (500Hz max)

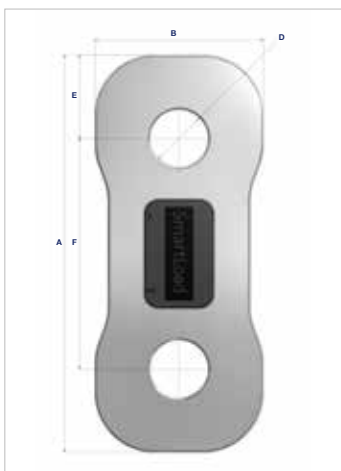


SmartLoad® load links are available for use in hazardous area Zones 1 and 2

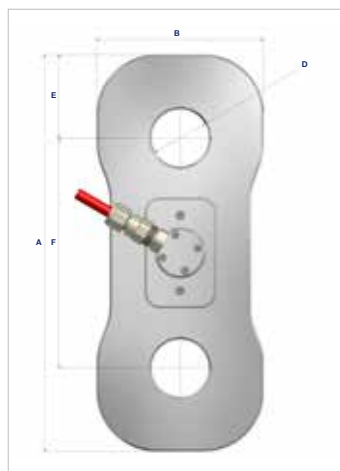




Wireless load link



Cabled load link



Load links typical dimensions - bespoke design available on request														
Product code (wireless)	TEN 9250	TEN 9251	TEN 9252	TEN 9253	TEN 9254	TEN 9255	TEN 9256	TEN 9257	TEN 9258	TEN 9259	TEN 9260	TEN 9261	TEN 9262	TEN 9263
Product code (cabled)	TEN 9627	TEN 9628	TEN 9629	TEN 9630	TEN 9631	TEN 9632	TEN 9633	TEN 9634	TEN 9635	TEN 9636	TEN 9637	TEN 9638	TEN 9639	TEN 9640
Load rating (tonnes)	3.25	5	12.5	25	35	50	75	120	150	200	250	300	400	500
Weight (kg)	1.3	1.8	3.5	7	10.8	17.3	29.5	56.5	78.9	122	158	203	304	408
A mm	230	250	300	350	400	450	480	550	620	730	790	860	1020	1120
B mm	74	84	108	144	168	202	244	270	290	340	390	430	520	560
C mm	24	32	50	65	75	90	110	141	161	170	189	189	205	230
D mm	20	26	40	52	58	71	84	97	110	133	143	153	178	188
E mm	37	37	54	72	84	101	122	130	150	180	200	225	270	310
F mm	156	176	192	206	232	248	236	290	320	370	390	410	480	500
G mm (wireless)	50	48	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
G mm (cabled)	81	79	81	96	106	121	141	172	192	201	220	220	236	261

Visilinks | Includes SmartLoad® technology

Scotload's Visilink load cells include a clear visual display within the load cell itself.

Features and benefits:

- SmartLoad® technology
- Can be controlled via the load cell menu
- Can be used with SmartLoad® wireless displays
- Logging capabilities
- Can be used with SmartLoad® software packages



Typical specifications	Display only	With wireless
Rated load	As required	
Proof load	150% of rated load (dependent on rope capacity)	
Non linearity	< ± 0.25% of full scale	
Non repeatability	< ± 0.05% of full scale	
Zero balance	< ± 0.05% of full scale	
Environmental protection	IP67 / IP68	
Safety factor	5x	
Operating temperature	-25°C to +70°C	
Storage temperature	-30°C to + 80°C	
Battery type	2 x AA	
Viewing area	30.78 x 25.02 mm	
Screen resolution	160 x 128	
Pixel density	141 PPI	
Display technology	OLED	
Battery life (active)	65 - 240 hours*	60 - 200 hours*
Battery life (standby)	~ 6 months	
Telemetry frequency	N/A	2.4GHz
System range	N/A	250 m
Sampling rate	1 - 5Hz	0.1 - 20Hz

* Depending on screen brightness

Load shackles | Available with SmartLoad® technology

Scotload's robust load shackles are ideal for lifting and weighing applications where there is limited headroom.

Our load shackles are manufactured from GN or Van Beest shackles as standard, but other manufacturers are available on request.

We provide a fully stainless steel construction (excluding bow) up to 85 tonnes as standard, and fully stainless steel construction for 120 tonnes and above upon request.

We have a large range of shackles available in stock up to 1000 tonnes for purchase or hire, and ready for immediate dispatch. Larger capacities are available on request and all of our load shackles are supplied with full calibration and proof load certificates.

Options

- Available with SmartLoad® technology
- Cabled or wireless
- Hazardous area Zone 1 and 2
- Subsea - with ROV / diver mateable connectors
- Bow or D type

Features and benefits

- Internally gauged, fully welded and hermetically sealed
- Robust construction
- Internal antenna
- In stock available for immediate dispatch
- Stainless steel centralising load bobbin supplied as standard
- Robust stainless steel protection cage for electronics



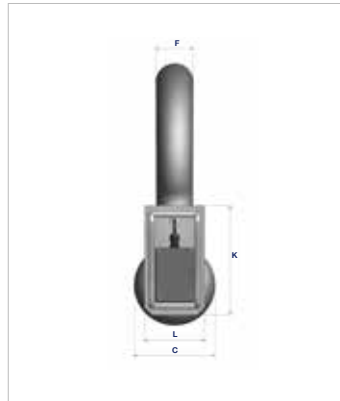
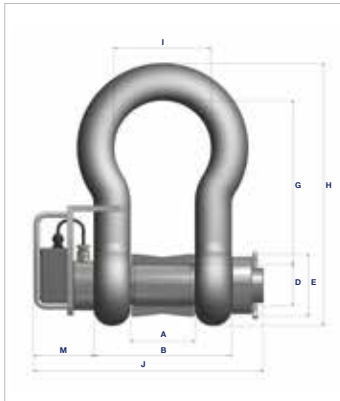
Typical specifications	mV/V output	mA output	Wireless output
Rated load		As required	
Proof load		150% of rated load	
Non linearity		< ± 1% of full scale	
Non repeatability		< ± 0.01% of full scale	
Zero balance		< ± 0.01% of full scale	
Environmental protection		IP67 / IP68	
Safety factor		3x	
Operating temperature		-25°C to +70°C	
Storage temperature		-30°C to + 80°C	
Cable connection	Gland or connector		N/A
Cable length	5m as standard		N/A
Output signal	mV/V	4-20mA	Wireless
Electrical connection	4 core	2 or 3 wire	N/A
Recommended excitation voltage	10V	N/A	N/A
Maximum excitation voltage	15V	N/A	N/A
Recommended supply voltage	N/A	24V	N/A
Maximum excitation voltage	N/A	30V	N/A
Bridge resistance	700 Ohm	N/A	N/A
Sensitivity	2.0mV/V nominal	N/A	N/A
Data logging	N/A	N/A	On load cell
Battery type	N/A	N/A	4 x AA
Active battery life	N/A	N/A	Up to 350 hours
Standby battery life	N/A	N/A	Up to 1700 hours
Telemetry frequency	N/A	N/A	2.4Ghz ISM
System range	N/A	N/A	Up to 350m
Sampling rate	N/A	N/A	10Hz (500Hz max)



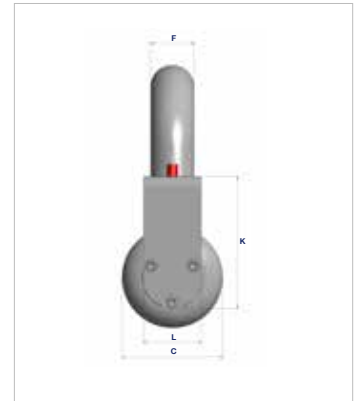
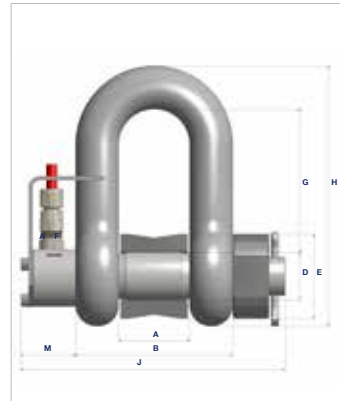
SmartLoad® load shackles are available for use in hazardous area Zones 1 and 2



Wireless load shackle



Cabled load shackle



Load shackles typical dimensions - bespoke design available on request

Product code (wireless)	9660	9661	9662	9663	9664	9665	9666	9667	9668	9669	9670	9671	9672	9965	9966	9967	9968	9969
Product code (cabled)	10269	10270	10271	10272	10273	10274	10275	10276	10277	10278	10279	10280	10281	10282	10283	10284	10285	10286
Load rating (tonnes)	8.5	12	17	25	35	55	85	120	150	200	300	400	500	600	700	800	900	1000
Approx weight bow (kg)	2.6	4.9	8.2	14.2	19.9	39.6	62	110	160	235	340	560	685	880	980	1100	1280	1460
Approx weight D (kg)	2.5	4.5	7.6	12.9	17.4	35.3	53	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A mm	43	51	60	74	83	105	127	150	170	180	205	230	255	285	310	310	330	350
B mm	93	115	136	164	183	235	273	328	374	420	465	560	615	675	720	730	770	810
C mm	59	72	88	103	111	145	162	200	230	260	305	350	570	405	435	435	465	480
D mm	28	35	42	50	57	70	83	95	108	140	150	175	185	205	217	217	230	240
E mm	44	50	63	88	88	114	125	152	165	190	254	254	300	300	330	330	355	355
F mm	25	32	38	45	50	65	75	89	102	120	130	165	180	195	205	210	220	230
G mm (bow)	95	115	146	178	197	260	329	380	400	500	600	680	700	700	700	700	700	750
G mm (D)	85	94	127	149	171	203	339	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
H mm (bow)	164	201	249	300	331	433	527	617	671	813	958	1108	1158	1200	1231	1236	1268	1290
H mm (D)	154	180	230	271	305	376	427	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
I mm (bow only)	68	83	99	126	138	180	190	238	275	290	305	325	350	375	400	400	420	420
J mm (wireless)	224	274	304	338	361	410	454	482	535	615	665	762	817	912	957	967	1011	1020
J mm (cabled)	159	209	242	276	297	347	391	440	493	550	600	695	750	845	890	900	944	953
K mm (wireless)	200	200	200	200	200	210	220	N/A	N/A	176	203	N/A	N/A	N/A	N/A	N/A	N/A	N/A
K mm (cabled)	110	119	131	136	160	180	205	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
L mm (wireless)	100	100	100	100	100	110	120	N/A	N/A	80	100	N/A	N/A	N/A	N/A	N/A	N/A	N/A
L mm (cabled)	50	50	50	60	75	88	100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M mm (wireless)	119	119	119	119	121	118	118	92	92	115	115	117	122	127	127	127	127	127
M mm (cabled)	54	55	57	57	57	55	55	50	50	50	50	50	55	60	60	60	60	60

Subsea load shackles | Includes SmartLoad® technology

Scotload's subsea load shackles are available as a 'D' or 'Bow' shackle body with load centralising bobbins, ROV / diver mateable connectors, displays and signal conditioning units with a robust carry case.

Specially designed for use in underwater applications, our load shackles are supplied with wet mateable connectors and deep sea protection, so they are unaffected by the outside water pressure whilst remaining sensitive in the intended load measuring direction.



Pillar compression load cells | Available with SmartLoad® technology

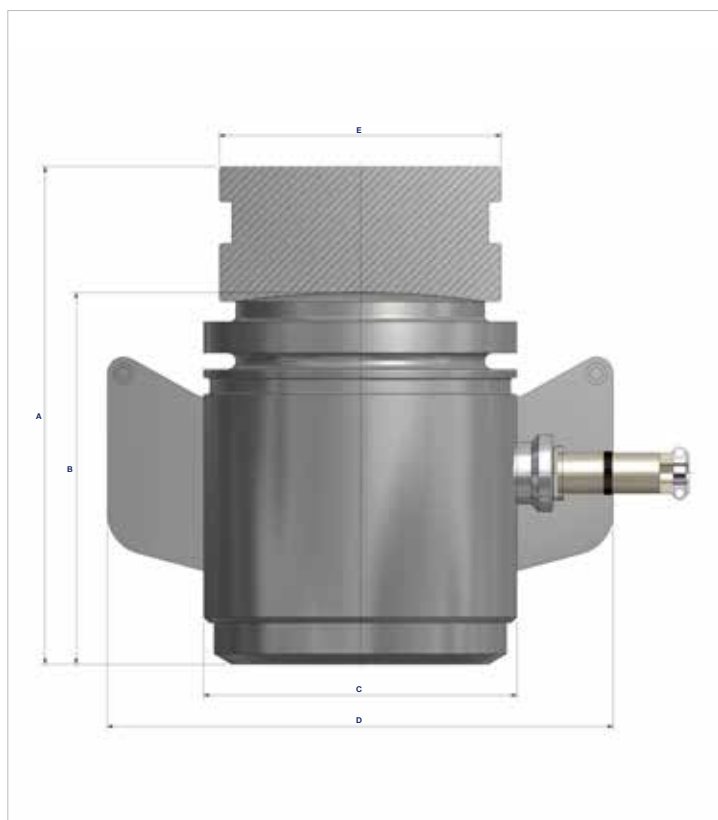
Scotload's pillar compression load cells are highly adaptable with a robust construction for use in harsh environments.

Manufactured from high tensile stainless steel, each load cell is designed with a domed loading top to greatly reduce the effect of offset loads.

The load cell cable is fitted through an integral connector to allow for on-site mating and removes the need for handling large lengths of cable whilst positioning the load cells.

We provide an in-house calibration service up to 1700 tonnes, traceable to national standards, as well as a customised design service to suit specialised requests. We maintain a range of stock available to buy or hire and ready for immediate dispatch.

Pillar compression load cell



Pillar compression load cell typical dimensions						
Product code	7510-100	7510-200	7510-300	7510-500	7510-700	7510-1000
Load rating (tonnes)	100	200	300	500	700	1000
Weight (kg)	8.5	18	28	75	86	160
A mm	170	215	240	320	350	400
B mm	127	163	179	248	281	315
C mm	100	126	151	216	216	272
D mm	184	210	244	320	320	246
E mm	86	112	136	196	196	246

Options

- Available with SmartLoad® technology
- Cabled or wireless
- Hazardous area Zone 0, 1 and 2
- Subsea - with ROV / diver mateable connectors
- Bespoke design
- Optional loading cap

Features and benefits

- Robust construction
- Long design life
- Highly accurate
- Fully welded and hermetically sealed
- Compatible with SmartLoad® COG system
- Larger sizes include built in handles for ease of positioning

Typical specifications	mV/V output	mA output	External wireless interface
Rated load	As required		
Proof load	150% of rated load		
Non linearity	< ± 0.15% of full scale		
Non repeatability	< ± 0.05% of full scale		
Zero balance	< ± 0.05% of full scale		
Environmental protection	As required		IP66
Safety factor	As required		
Operating temperature	-20°C to +60°C		
Storage temperature	-30°C to + 80°C		
Cable connection	Gland or connector		N/A
Cable length	5m as standard		N/A
Output signal	mV/V	4-20mA	Wireless (Input signal mV/V)
Electrical connection	4 core	2 or 3 wire	N/A
Recommended excitation voltage	10V	N/A	N/A
Maximum excitation voltage	15V	N/A	N/A
Recommended supply voltage	N/A	24V	N/A
Maximum excitation voltage	N/A	30V	N/A
Bridge resistance	700 Ohm	N/A	N/A
Sensitivity	1.5mV/V - 2.0V/V nominal	N/A	N/A
Data logging	N/A	N/A	In interface
Battery type	N/A	N/A	3 x D
Active battery life	N/A	N/A	Up to 500 hours
Standby battery life	N/A	N/A	Up to 1700 hours
Telemetry frequency	N/A	N/A	2.4Ghz ISM
System range	N/A	N/A	Up to 350m
Sampling rate	N/A	N/A	10Hz (500Hz max)



SmartLoad® load cells are available for use in hazardous area Zones 0, 1 and 2



Diaphragm compression load cells | Available with SmartLoad® technology

Scotload's diaphragm load cells are ideal for a range of structural and industrial applications where height may be limited.

Manufactured from high tensile stainless steel, our highly accurate diaphragm load cells have a low profile and a high resistance to offset loads.

The standard fixing arrangement includes six counter bored holes with an optional base plate, which allows the load to become an integral part of the structure they are monitoring. They can also be supplied with tapped holes for more specialised installations.

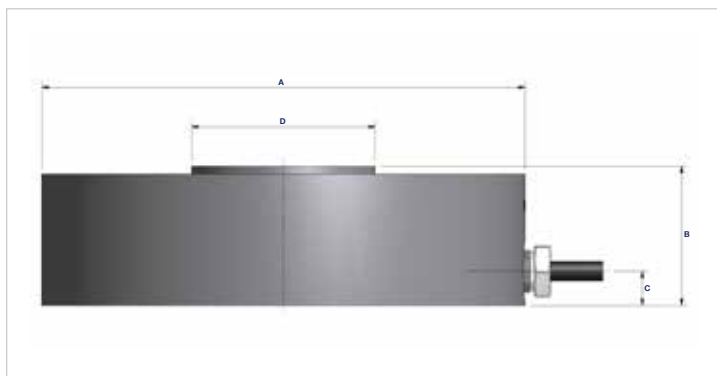
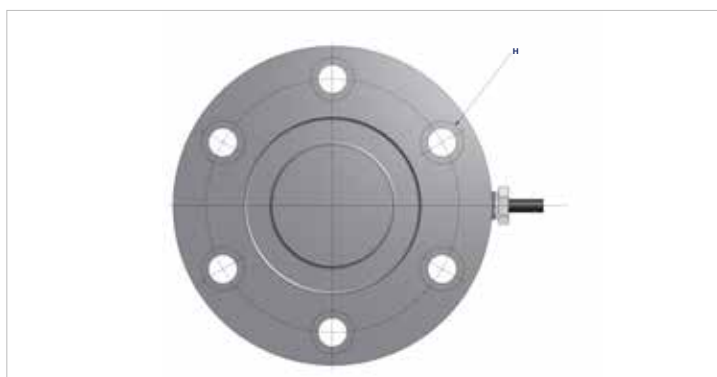
Options

- SmartLoad® technology
- Cabled or wireless
- Hazardous area Zone 0, 1 and 2
- Subsea
- Bored or tapped holes
- Optional base plate

Features and benefits

- Can be retrofitted
- High resistance to offset loads
- Versatile - ideal for applications where height may be limited
- High safety factor
- Fully welded and hermetically sealed
- Compatible with SmartLoad® COG system

Diaphragm compression load cell



Diaphragm compression load cell typical dimensions

Product code	DIA 2800	DIA 3356	DIA 3357
Load rating (tonnes)	0.1 to 20	10 to 50	40 to 100
A mm	112	150	184
B mm	25	45	53
C mm	11	12	12
D mm	50	60	70
Hole H	To suit 6 x M6 SKT CAP screws on 98 P.C.D	To suit 6 x M12 SKT CAP screws on 122 P.C.D	To suit 6 x M16 SKT CAP screws on 146 P.C.D

Typical specifications	mV/V output	mA output	External wireless interface
Rated load	As required		
Proof load	150% of rated load		
Non linearity	< ± 0.25% of full scale		
Non repeatability	< ± 0.05% of full scale		
Zero balance	< ± 0.05% of full scale		
Environmental protection	IP68		IP66
Safety factor	As required		
Operating temperature	-20°C to +60°C		
Storage temperature	-30°C to + 80°C		
Cable connection	Gland or connector		N/A
Cable length	5m as standard		N/A
Output signal	mV/V	4-20mA	Wireless (Input signal mV/V)
Electrical connection	4 core	2 or 3 wire	N/A
Recommended excitation voltage	10V	N/A	N/A
Maximum excitation voltage	15V	N/A	N/A
Recommended supply voltage	N/A	24V	N/A
Maximum excitation voltage	N/A	30V	N/A
Bridge resistance	1000 Ohm	N/A	N/A
Sensitivity	1.5mV/V nominal	N/A	N/A
Data logging	N/A	N/A	In interface
Battery type	N/A	N/A	3 x D
Active battery life	N/A	N/A	Up to 500 hours
Standby battery life	N/A	N/A	Up to 1700 hours
Telemetry frequency	N/A	N/A	2.4Ghz ISM
System range	N/A	N/A	Up to 350m
Sampling rate	N/A	N/A	10Hz (500Hz max)



SmartLoad® load cells are available for use in hazardous area Zones 0, 1 and 2



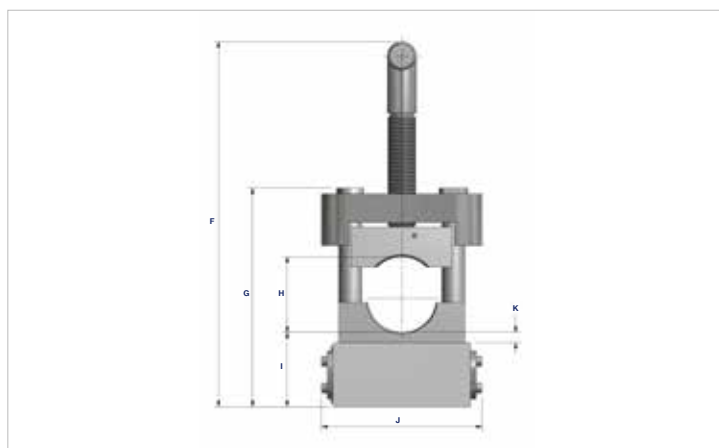
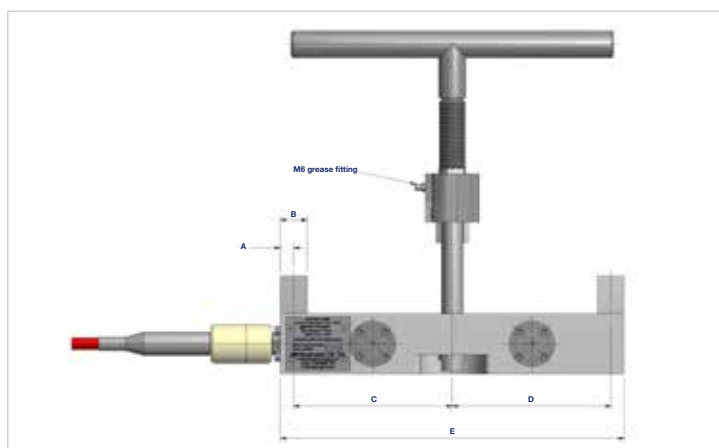
Static line monitor | Available with SmartLoad® technology

Scotload's static line monitors are ideal for use in harsh environments where a fixed means of measurement is impractical.

Manufactured from high tensile aluminium or stainless steel, our static line monitors can be customised to suit various rope sizes. They provide accurate readings to ensure that loads remain within safe working limits.

We have a range of stock available for purchase or hire, ready for immediate dispatch, as well as a popular in-house calibration service up to 100 tonnes, traceable to national standards.

Static line monitor



Static line monitor typical dimensions

A mm	12.5
B mm	2.5
C mm	147.5
D mm	147.5
E mm	320
F mm	319
G mm	191
H mm	66 (Max)
I mm	66
J mm	140
K mm	9

Options

- Available with SmartLoad® technology
- Cabled or wireless
- Hazardous area Zone 1 and 2
- Aluminium or stainless steel construction

Features and benefits

- Easy to transport
- Robust construction
- Simple to use



Typical specifications	mA output	External wireless interface
Rated load	As required	
Proof load	200% of rated load (dependent on rope capacity)	
Rope diameter	22mm to 50mm	
Operating temperature	-20°C to +60°C	
Storage temperature	-30°C to +80°C	
Environmental protection	IP67	IP66
Output signal	4-20mA	Wireless
Electrical connection	2 or 3 wire	N/A
Cable connection	Gland and connector	N/A
Cable length	5m as standard	N/A
Recommended supply voltage	24V	N/A
Maximum supply voltage	30V	N/A
Data logging	N/A	In interface
Battery type	N/A	3 x D
Active battery life	N/A	Up to 500 hours
Standby battery life	N/A	Up to 1700 hours
Telemetry frequency	N/A	2.4Ghz ISM
System range	N/A	Up to 350m
Sampling rate	N/A	10Hz (500Hz max)



SmartLoad® line monitors are available for use in hazardous area Zones 1 and 2



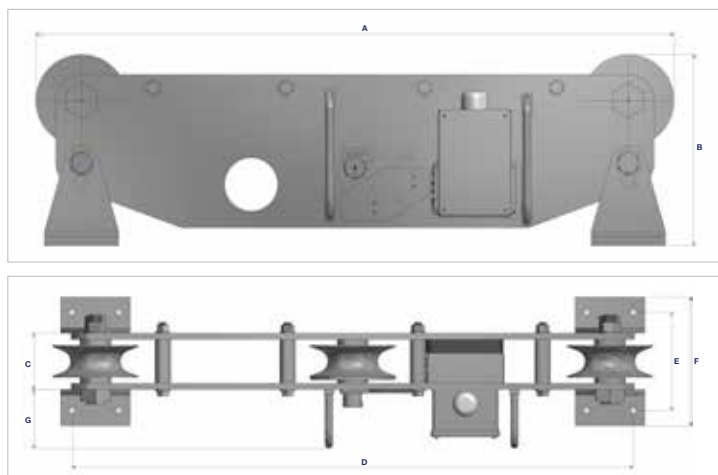
Running line monitor | Available with SmartLoad® technology

Scotload's running line monitors' rugged design makes them ideal for operation in extreme environments.

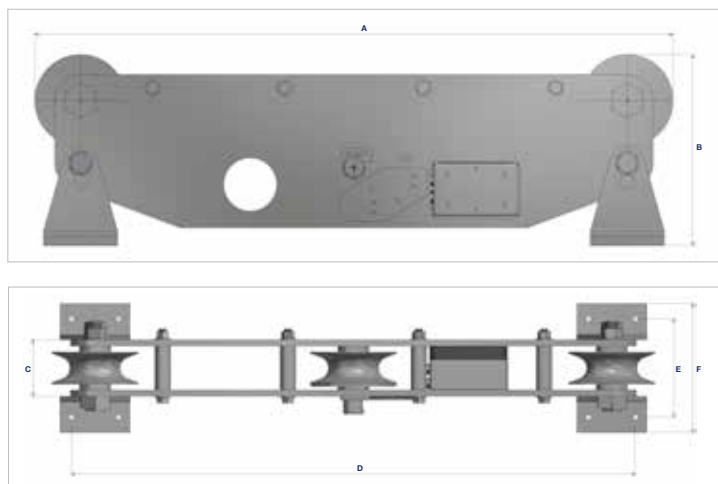
Specially designed to be corrosion resistant in harsh marine environments, our running line monitors suit various rope sizes and capacities depending on your needs.

We maintain a range of stock available for purchase or hire, ready for immediate dispatch. We provide a popular in-house calibration service up to 100 tonnes, traceable to national standards, as well as bespoke design and manufacturing to suit more specific requests.

Wireless running line monitor



Cabled running line monitor



Options

- Available with SmartLoad® technology
- Cabled or wireless
- Hazardous area Zone 1 and 2
- Various display options
- Mains or battery powered indicators
- Three or five roller system
- Customised system design service

Features and benefits

- Robust stainless steel protection cage for electronics
- Corrosion resistant design
- In stock available for immediate dispatch

Typical specifications	mA output	Wireless output
Rated load	As required	
Proof load	200% of rated load (dependent on rope capacity)	
Rope diameter	10mm to 125mm	
Non linearity	< ± 1% of full scale	
Non repeatability	< ± 0.01% of full scale	
Zero balance	< ± 0.01% of full scale	
Environmental protection	IP66	
Operating temperature	-20°C to +60°C	
Storage temperature	-30°C to + 80°C	
Output signal	4-20mA (load) Pulsed output, quadrature mode (distance/speed)	Wireless
Electrical connection	8 core (load and distance/speed)	N/A
Cable connection	Gland and connector	N/A
Cable length	5m as standard	N/A
Recommended supply voltage	24V	N/A
Maximum supply voltage	30V	N/A
Data logging	N/A	On RLM
Battery type	N/A	3 x D
Battery life (active)	N/A	Up to 350 hours
Battery life (standby)	N/A	Up to 1700 hours
Telemetry frequency	N/A	2.4GHz ISM
System range	N/A	Up to 350m
Sampling rate	N/A	10Hz (500Hz max)

Running line monitor typical dimensions - bespoke design available on request

	10049	10050	10051	10052
Product code (wireless)	10049	10050	10051	10052
Product code (cabled)	10070	10071	10072	10073
Model type	Model 1	Model 2	Model 3	Model 4
Sheave sizes available (mm)	10 - 25	22 - 28	32 - 40	42 - 48
A mm	722	810	963	1028
B mm	250	270	297	331
C mm	62	90	90	95
D mm	601	785	899	936
E mm	112	146	148	153
F mm	162	186	188	193
G mm (wireless only)	95	95	95	95



SmartLoad® line monitors are available for use in hazardous area Zones 1 and 2



Centre of gravity system | Available with SmartLoad® technology

Scotload's centre of gravity (COG) system facilitates the safe lifting and transportation of structures and loads, where it is difficult to determine the centre of gravity by calculation.

Our accurate, reliable and robust COG system minimises the risk of incidents during lifting operations. A lift's centre of gravity is often the single most undervalued property of a load. Given the opportunity, if the COG is not centralised, or the load is close to its limit, rotation can occur and the integrity of your lift and the safety of your personnel are put at risk.

Integration with SmartLoad® technology

Integrating our award winning SmartLoad® technology, the system comprises load cells which weigh and automatically calculate your lift's centre of gravity. Our custom designed software can display the COG as the lift is in progress. The lift load data is then stored and available to download for analysis and reporting.

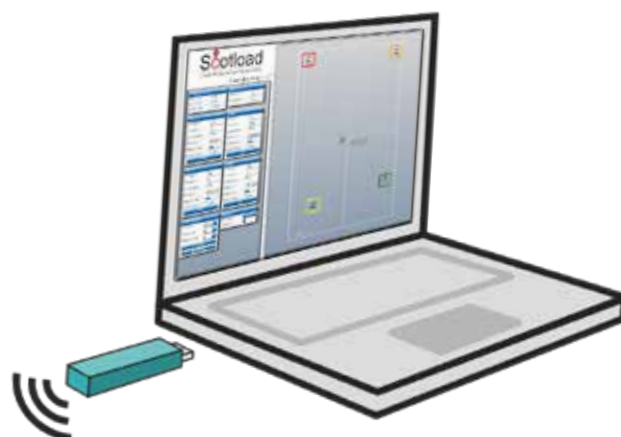
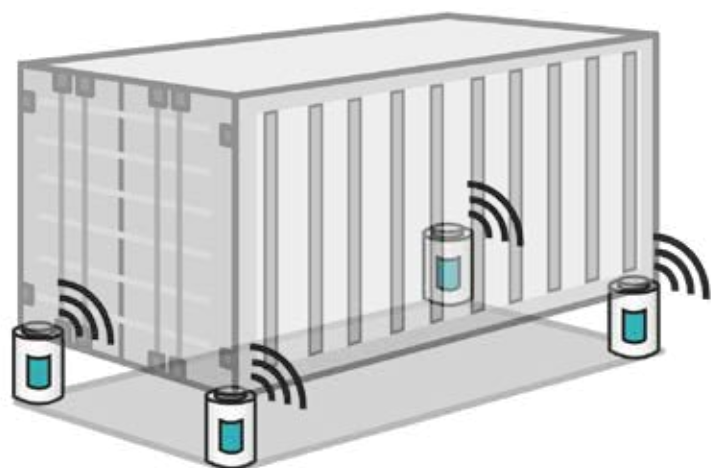
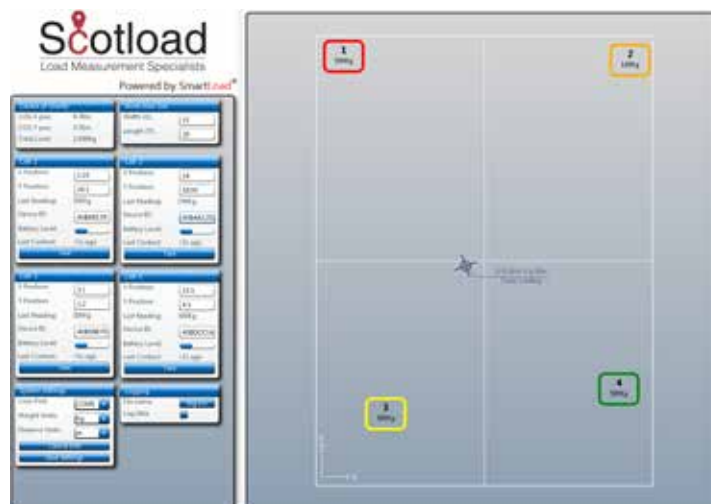
The flexibility of our SmartLoad® technology means that the COG software can be used with your existing SmartLoad® load cells, removing the need for expensive full system upgrades.

Options

- Available with SmartLoad® technology
- Cabled or wireless
- Hazardous area Zone 0, 1 and 2

Features and benefits

- Live COG indication
- Accurate, reliable and robust
- Determines both weight and centre of gravity
- Facilitates safe lifting
- Simple and intuitive set up and design
- Can be used with multiple load cells and configurations



Silo weighing | Available with SmartLoad® technology

Scotload manufactures a full range of silo weighing and batching systems that can be tailored to suit any silo or vessel, whatever the contents.

Easy to install, our highly adaptable silo weighing systems can be mounted during manufacture of new equipment or retrofitted to existing systems. Using the latest technology we ensure our customers receive the most up-to-date and dependable systems for use on both fixed and portable applications.

Options

- Available with SmartLoad® technology
- Cabled or wireless
- Hazardous area Zone 0, 1 and 2

Features and benefits

- Accurate display and batching of contents
- Tailored to suit any application
- Newly mounted or retrofitted
- On-site calibration service available



SmartLoad® silo weighing is available for use in hazardous area Zones 0, 1 and 2



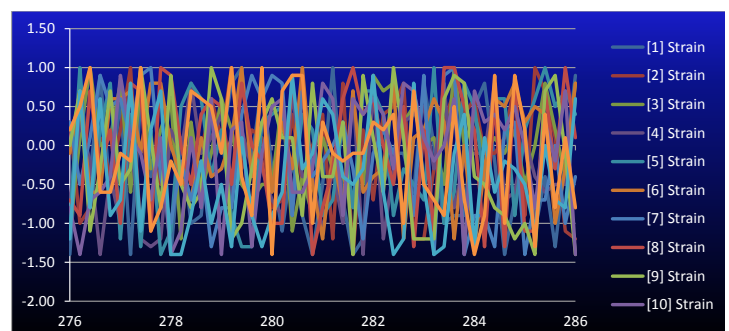
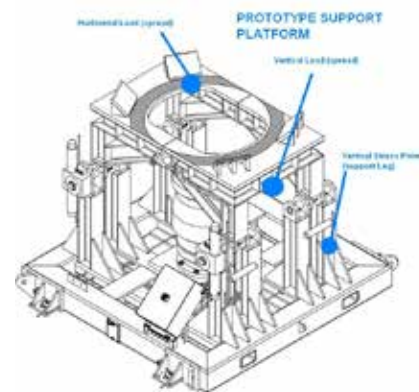
Stress analysis

Scotload provides a comprehensive stress analysis service delivering fast, accurate and reliable data for a range of structures, equipment and components.

Using the most up-to-date technology we offer a high frequency of sampling to ensure all critical readings are captured at the crucial moments.

Our engineers will conduct a dynamic test program and our flexible approach facilitates any additional testing or changes as and when required.

Post processing of the data is conducted at Scotload and a full report will be available within 24 hours. Raw data is accessible after each test for urgent analysis if required.



Visit www.scotload.com for more information on the products and services available from Scotload

