

## Load shackles



V1.0



**Strainstall's load shackles are a robust and effective means of measuring tensile loads in a variety of applications.**

Built to withstand the demands of challenging environments, our load shackles are ideal for compact and reliable lifting and weighing operations across all industry sectors including marine, offshore and subsea.

Precision engineered and highly accurate, our load shackles include a stainless steel pin and an innovative load bobbin design with a robust anti-rotation bracket to ensure the load is centralised and accurately monitored. This valuable and precise technology ensures loads are safely distributed and balanced to protect against overload situations and costly accidents.

### Options

- Cabled or wireless
- Extreme temperature and subsea options
- Hazardous area Zone 1 and 2
- Bow or D type

### Features and benefits

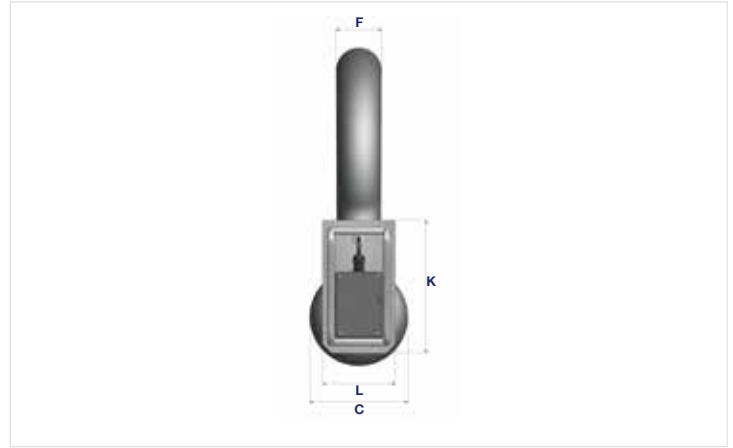
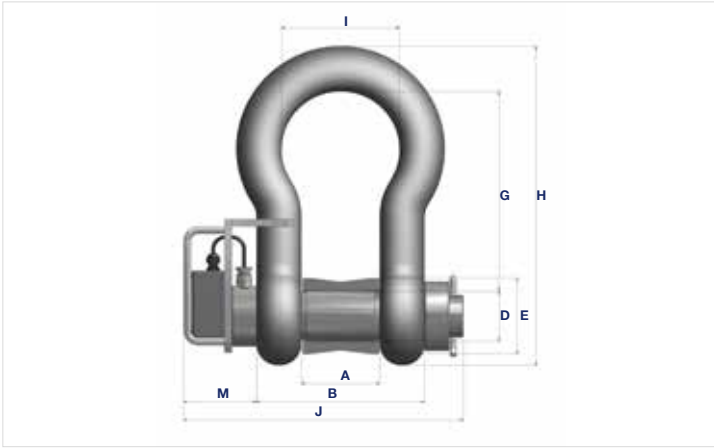
- Internally gauged, fully welded and hermetically sealed
- Robust construction
- Internal antenna
- Stainless steel centralising load bobbin as standard
- Robust stainless steel protection cage for electronics

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)

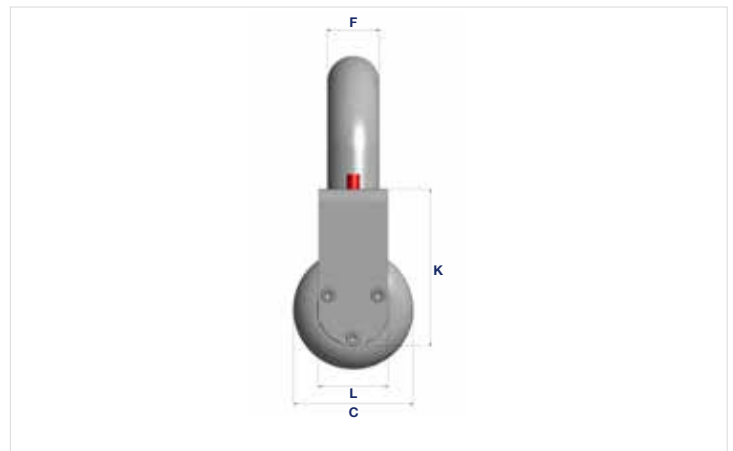
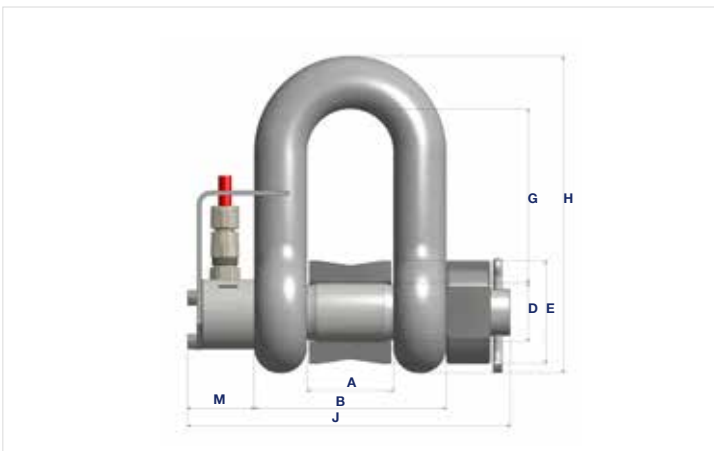
Due to continuous development, Strainstall reserves the right to change specifications without notice.

# Load shackle typical dimensions

## Wireless load shackles



## Cabled load shackles



Load shackles typical dimensions - bespoke design available on request																		
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

We are always happy to help find the appropriate, tailored solutions for your business needs. If you have any requests or suggestions please do not hesitate to contact us.