



## N TELSHACK-D

### Description

- Measurement ranges 0 ... 1 t to 0 ... 35 t
- Tension
- Non-linearity 1 % of RL
- Output 1.8 mV ... 2.4 mV, amplifier output optional
- Supply voltage 10 VDC, max. 15 VDC



The TELSHACK-D range of load shackles is designed for lifting and weighing in rugged or harsh environments. The shackle pins are forged from high tensile stainless steel and are machined to an exacting specification. The basic shackle uses the Crosby G2150 series.

This range of loads cells is proof loaded to 150% of the normal rated load, and is available in a range from 1 t to 35 t. The TELSHACK-D is internally gauged and the whole instrumented area is sealed to IP67 to protect it in service.

They are simple to install and are available in standard shackle sizes. As an option, a rotating bobbin can be supplied to centralise the load and to minimise 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 TELSHACK-D series can be supplied on its own or combined with our extensive range of instrumentation to provide a complete load monitoring package.

### More Features

- High tensile carbon steel construction
- Environmentally sealed to IP67
- Simple installation and operation
- Shackle and load pin fully certified
- Optional load centralising bobbin
- Many other options available

### Typical Applications

- Under-hook hoist/crane weighing
- Cable tension monitoring
- Towing/mooring tension
- Crane safe load monitoring

### Specifications

Rated load (RL):	1 / 2 / 3.25 / 4.75 / 6.5 / 9.5 / 12 / 17 / 25 / 35 t
Proof load:	150 % of RL
Ultimate breaking load:	>300 % of RL
Output:	Between 1.8 and 2.4 mV
Non-linearity:	<±1 % of RL (typically)
Non-repeatability:	<±0.1 % of RL
Supply voltage:	10 VDC recommended, 15 VDC maximum
Bridge resistance:	350 Ω
Insulation resistance:	>500 MΩ at 500 VDC
Operating temperature range:	-20 ... +70 °C
Compensated temperature range:	-10 ... +50 °C
Zero temperature coefficient:	<±0.01 % of RL/K

## Specifications (continued)

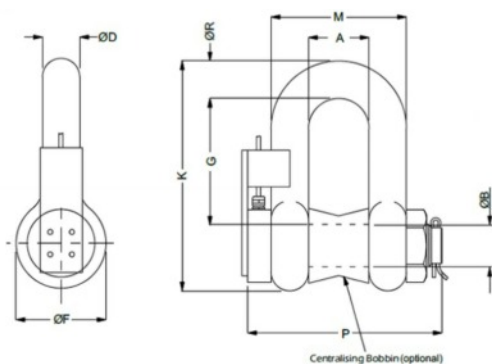
Span temperature coefficient:	<math>\pm 0.01\%</math> of RL/K		
Environmental sealing:	IP67		
Electrical connections:	10 m 4-core, screened PUR cable (glanded exit)		
Wiring connections:	red: + supply voltage green: + signal	blue: - supply voltage yellow: - signal	

## Options

- Special ranges and capacities up to 2000 t
- Special electrical connections
- Integral signal conditioning
- Centralising load bobbin
- Subsea and offshore versions
- Lloyds, ABS or DNV witness testing
- TEDS option (when used with TR150 handheld display)

<b>Special ranges</b>	The TELSHACK-D can be supplied in any range, between 1 t and 35 t and calibrated as required. Usually we will choose the nearest standard shackle size. We can also offer special design shackles up to 2000 t. Consult our design team for more details.
<b>Special electrical</b>	The standard TELSHACK-D cable exits the shackle pin via a gland and is restrained using the anti-rotation bracket. We can offer variations to the electrical connection method. For example, integral connectors, special cable length etc.
<b>Integral signal conditioning</b>	We can offer various integral signal conditioning options, including: <b>Analogue signals:</b> 4 ... 20 mA 2-wire current output (7.5 ... 30 VDC supply) 4 ... 20 mA 3-wire current output (10 ... 30 VDC supply) 0 ... 5 VDC 3-wire voltage output (8.5 ... 28 VDC supply) 0 ... 10 VDC 3-wire voltage output (13 ... 30 VDC supply) <b>Digital signals:</b> RS232 digital - various protocols (5.4 ... 18 VDC supply) RS485 digital - various protocols (5.4 ... 18 VDC supply)
<b>Centralising bobbin</b>	We can offer an optional centralising bobbin. This helps improve the overall accuracy in certain cable tension applications. The bobbin is shown pictorially in the drawing below.
<b>Subsea or offshore</b>	We are able to offer fully submersible versions, which are normally supplied with underwater mateable connectors. These versions can also be pressure tested by ALTHEN and witnessed by a third party at any point through the manufacturing process. (ABS, Lloyds or DNV).
<b>Radio telemetry</b>	We have a version available that requires no cable connection, using radio telemetry to transmit data. There is a separate data sheet available for this product.

## Dimensions



Rated load (t)	A	ØB	ØD	ØF	G	K	M	P	R	Weight (kg)	Res (t)
1	16.8	11.2	9.65	23.1	31	58.5	35.8	55	9.65	2	0.001
2	20.6	16	12.7	30.2	41.4	77	46	84	12.7	2.2	0.002
3.25	26.9	19.1	16	38.1	51.0	95.5	58.5	89.5	16.0	2.4	0.005
4.75	31.8	22.4	19.1	46	60.5	115	70	103	20.6	2.8	0.005
6.5	36.6	25.4	22.4	53	71.5	135	81	120	24.6	3.5	0.005
9.5	46.0	31.8	28.7	68.5	91	172	103	150	31.8	6	0.01
12	51.5	35.1	31.8	76	100	191	115	165	35.1	8	0.01
17	60.5	41.4	38.1	92	122	230	137	196	41.1	10	0.02
25	73.0	51.0	44.5	106	146	279	162	230	54	15	0.02
35	73.0	57.0	51	122	172	312	184	264	60	22	0.05

All dimensions in mm, approx. values.  
 These drawings are for information only and not intended for construction purpose.  
 Please ask for detailed drawings.

Due to continuous product development, ALTHEN and partners reserve the right to vary the foregoing details without prior notice.