

Title:	Shackle Load Cell - LS-3110-PLW Shackle Kit		
Doc name:	DS-0240	Revision:	A

# Shackle Load Cell

## LS-3110-PLW Shackle Kit

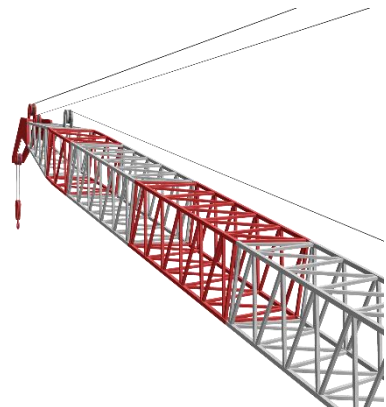
*The sensor is manufactured to withstand a tough environment. The electronics provide power supply regulation, reverse polarity and over voltage protection.*

- Ranges from 12 to 120 Ton*
- Enclosure IP67*
- Ex ia IIC T5 ATEX*
- Designed for harsh environment*
- Stainless steel*
- Easy to install and maintain.*



## Applications

- Hoisting and cranes security*
- Hoisting gear, elevators and winches*
- Stationary weighing*
- General industry (harsh environment)*
- Offshore*
- Marine and harbour environments.*







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## Mechanical Characteristics

Nominal Load (Metric)	12Ton, 17Ton, 25Ton, 35Ton, 55Ton, 85Ton, 120Ton
Weight (nominal)	5kg, 9kg, 14kg, 21kg, 38kg, 63kg, 112kg
Overload Admissible	150% of rated load without zero change
Safety Factor (0,2%)	5x full scale
Material in Loadcell	Stainless Steel
Protection Class	IP67

## Electrical Characteristics

Operating Principle	Full bridge strain gauge
Output Signal	Rated load
Power Supply	12-28VDC with protected polarity reversal
Non-linearity Error	< 0,15% of full scale
Hysteresis Error	< 0,60% of full scale
Repeatability	± 0,1% of full scale
Operating Temperature	-20°C to 80°C
Storage Temperature	-40°C to 85°C
Temperature Influence  On Zero  On Sensitivity	± 0,2% of full scale per °C ± 0,02% per °C
Long Term Stability:  Of Zero  Of Stability	< 1% of full scale per year < 0,5% of full scale per year
Standard Calibration	0 Ton = 4mA Full scale in Ton = 20mA
EMC	EN 55011A (1998) / EN 61000-6-2 (1999)
Ex	EEx ia IIC T5 (acc. To ATEX 94/9/EC) Ex ia IIC T5 Ga IECEx

## Electrical Connection between Load Cell and Universal Reader

Cable Length (Standard)	6m
Cable Length (Optional)	12m

## Specification Universal Reader

Display	Graphic LCD, 5 digits
Functions	Min/Max/Tara, History Log, Battery Indicator
Unit	Kg, lb, ton, sh tn
Power Supply	Re-chargeable batteries
Operating time on batteries	Approximately 35 hours
Operating temperature	-20°C to 50°C
Storage temperature	-20°C to 80°C without batteries
EMC	EN 55011A (1999) /EN 61000-6-2 (1999)
Ex	Eex ia IIC T5 (acc. to ATEX 94/9/EC)
Material in Universal Reader	Anodized aluminium
Protection Class	IP67
Overall dimensions	90x236x33mm (WxHxD)
Weight (nominal)	800g

*Note: Due to continuous product improvements, published specifications may change without notice.*

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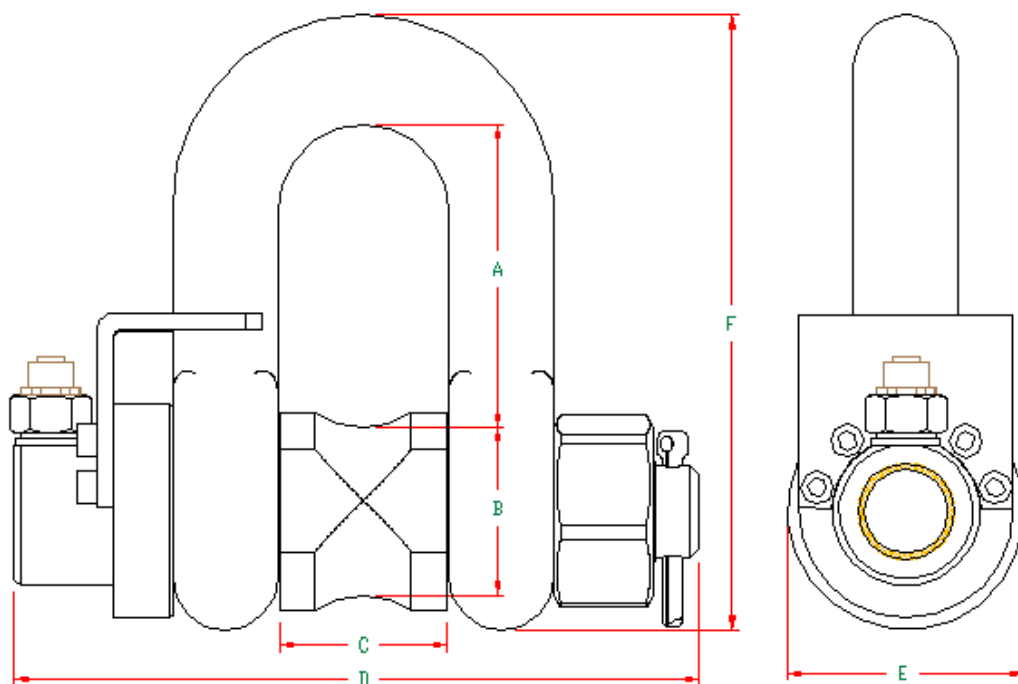
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Manufactured by: **Scan-Sense AS**, Bekkeveien 163, 3173 Vear, NORWAY

Phone: +47 33 36 30 00, Fax: +47 33 36 30 01, E-mail: [post@scansense.no](mailto:post@scansense.no)

## Standard Shackle Dimensions

*Standard load cell shackles in stainless steel. Designed to be compatible with existing standards.*



Art.No	Range [mT]	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	Weight [kg]
5SPS012	12	92	51	50	213,5	72	185,5	5
5SPS017	17	113	59	58	227,5	84	223	9
5SPS025	25	138	70	71	260	105	271	14
5SPS035	35	160	80	80	286,5	127	313,5	21
5SPS055	55	240	100	101	353	152	431	38
5SPS085	85	287	166	122	411,5	165	539	63
5SPS120	120	334	164	140	467,5	203	618	112

**The Kit Includes:**

- ✓ Load cell
- ✓ Universal Reader
- ✓ Carrying Case / Foam
- ✓ Spare battery
- ✓ Charger 90-260VAC
- ✓ 6 meter cable (optional 12 meters)
- ✓ Manual PLW kit
- ✓ Calibration Certificate



## Ordering Information

Art.No	Description	Dimensions (LxWxH)	Weight (kg)
5SPS012-PLW-211	Shackle Loadcell Kit, 12Ton, Eex ia II C T5	406x330x178mm	10
5SPS017-PLW-211	Shackle Loadcell Kit, 17Ton, Eex ia II C T5	521x427x217mm	15
5SPS025-PLW-211	Shackle Loadcell Kit, 25Ton, Eex ia II C T5	521x427x217mm	20
5SPS035-PLW-211	Shackle Loadcell Kit, 35Ton, Eex ia II C T5	521x427x217mm	27
5SPS055-PLW-211	Shackle Loadcell Kit, 55Ton, Eex ia II C T5	625x495x305mm	48
5SPS085-PLW-211	Shackle Loadcell Kit, 85Ton, Eex ia II C T5	800x581x479mm	75
5SPS120-PLW-211	Shackle Loadcell Kit, 120Ton, Eex ia II C T5	800x581x479mm	125

## Spare parts

Art.No	Description	Dimensions (LxWxH)	Weight (kg)
3UR00130	Battery for Universal Reader		
OPEL30060	Charger 90-260VAC		
OLPH01220	12m cable		

*Scan-Sense AS is a Norwegian company specializing in design and manufacturing of high quality sensor solutions for pressure, load and force. The company has more than 30 years of experience of making tailor-made solutions for the oil and gas industry.*

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