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DATA SHEET

Model Reference # CTP01

Order code # LT XFW-CTP01-01

# WIRELESS LOAD CELL - CONTROL LINE - CONSET HyPe TRUSS SMART PIN

The Smart Pin is designed to replace the original truss manufacturer's pin within a truss fork connection system. it's built to replace and operate perfectly like the original pins, but with the ability to read the forces involved. For technical reasons, the smart Pin cannot have diameters less than 20mm. Each model of Smart Pin must be authorized by the truss manufacturer and must appear in the relative data sheet.

The smart Pin reads the loads in real time with reading every second. Battery-saving strategy increasing transmission   interval when load is stable. The cells transmit the data to a Gateway which can be connected to a PC with a USB cable. The distances between the Smart Pins and the Gateway depend on environmental conditions (typically up to 600m in line of sight).

Accessory

LT XFW-UEP01   Extractor tool for assembling

Dimensions (mm)

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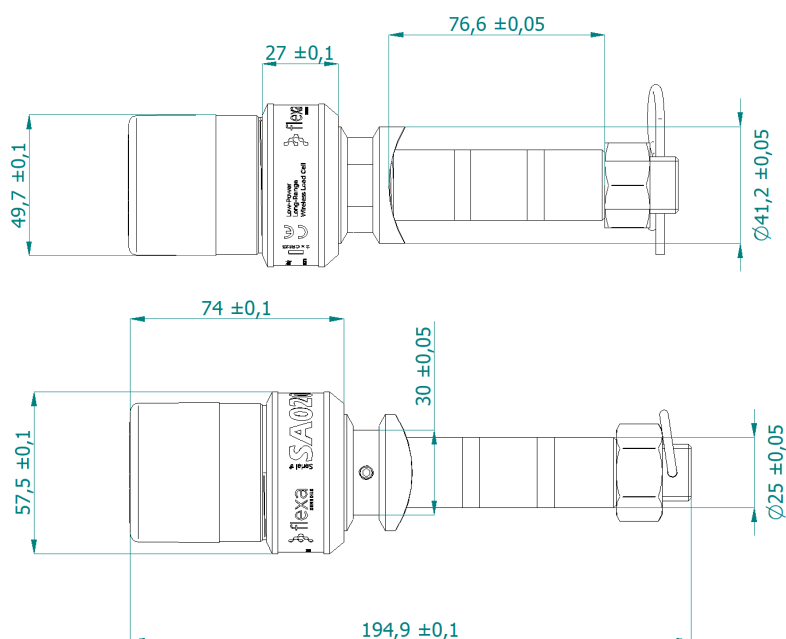
Main body

|	
Load cell pin	Stainless Steel - 17-4 PH H925
Aluminum Cylindrical Nut	Anodized aluminum with permanent laser engraving
Cylindrical Cap	Semi-transparent polycarbonate
Periodic calibration IP	Every 2 years or every 7000 hours of service
Protection IP level	IP67: Protected against ingress of dust and can withstand full immersion up to 1 meter for 30 minutes without any filtration
Weight (w/o batteries)	0.70kg
Designed for	Conset HyPe Steel Truss System

Electronics

Load measurement	Every second
Maximum Transmission Rate	Every second
Optimized Transmission Rate	According to the load status (when the load stabilizes, the rate decreases)
Radio frequency ①	Sub-1GHz
Range (cell / gateway) ②	Up to 600m - in line of sight, unobstructed (longer distances using Repeater)
Data acquisition system	Gateway Flexa Control Line
Data managment and GUI	Flexa Control Software on PC connected to Gateway
Batteries	2 x CR 123
Expected battery life ③	5000/7000h
Reverse polarity protection circuit	Yes

① *Sub-1GHz - 868MHz for EMEA version, 915MHz for American version (more details and complete list of countries on www.frlexasensors.com)*
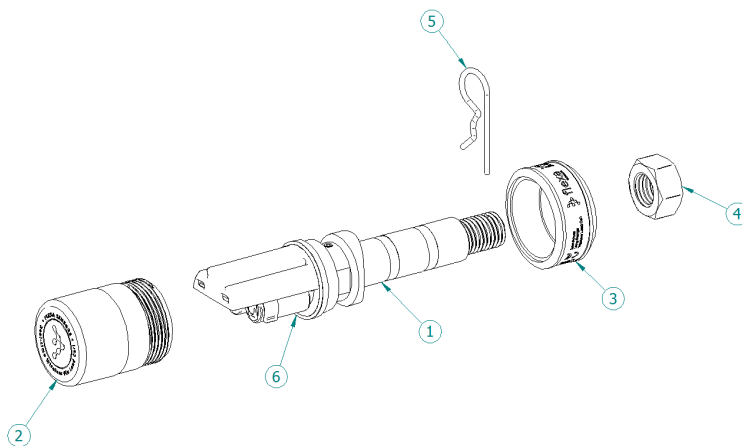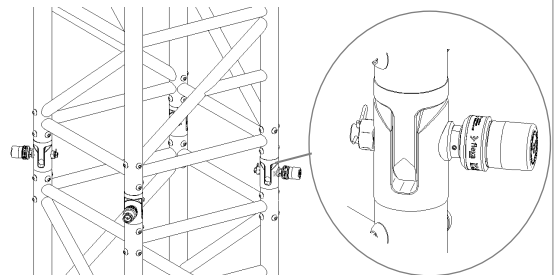
② *See next page*

③ *The duration of the batteries strongly depends on how often the data are transmitted.*
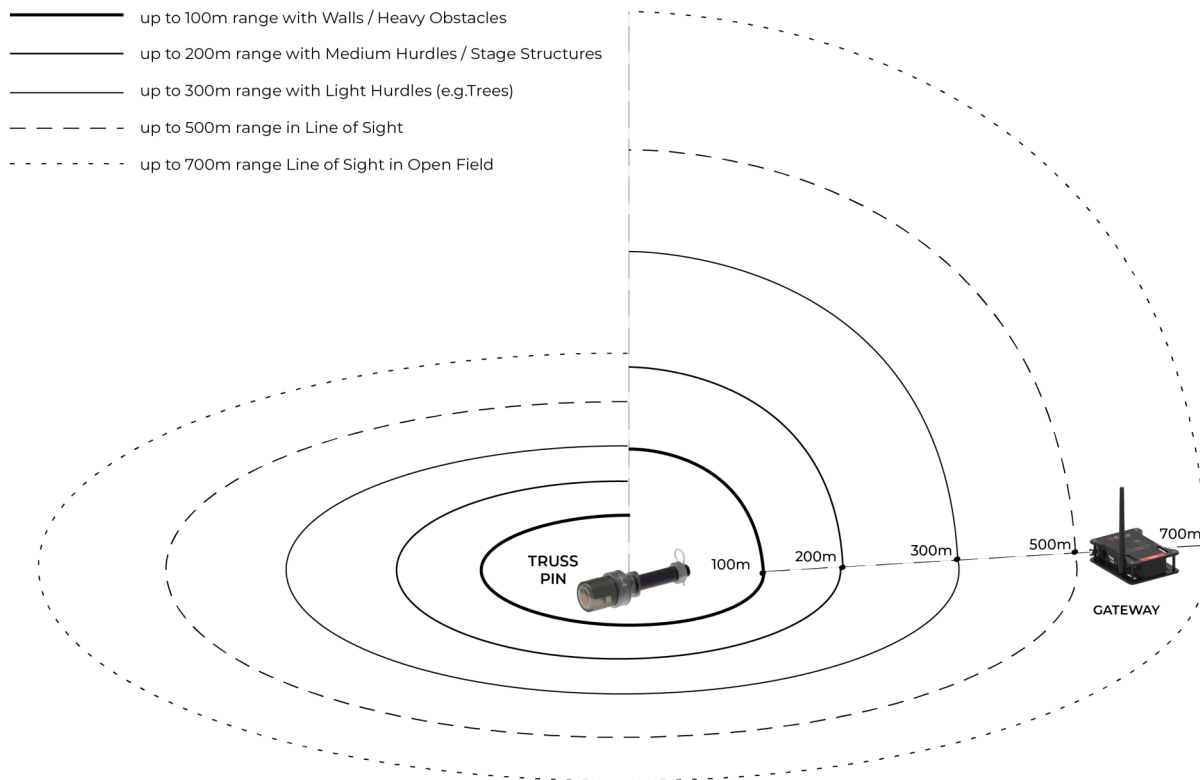
Extractor tool (UEP01)

363,5 Ø 80 30 85
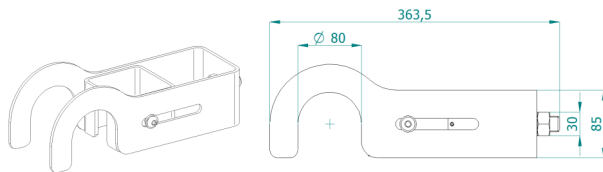
How to use

List of parts

Part	Description
1	Pin Load Cell
2	Cylindrical Cap
3	Aluminum Cylindrical Nut
4	M20 Nut
5	Cotter Pin
6	O-Ring Seal

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Range

- up to 100m range with Walls / Heavy Obstacles
- up to 200m range with Medium Hurdles / Stage Structures
- up to 300m range with Light Hurdles (e.g.Trees)
- up to 500m range in Line of Sight
- up to 700m range Line of Sight in Open Field

TRUSS PIN   100m   200m   300m   500m   700m   GATEWAY

The maximum range of any wireless system depends on the propagation conditions: If the propagation between the cell and the Gateway is in line of sight, the maximum range achievable with our system is about 600 meters. In the graph we have simulated the limitations due to various types of obstacles. Data are taken from field tests and theoretical calculations and are intended for guidance. Actual performance will be determined by site conditions.

100m 200m 300m 400m 500m 600m 700m 800m 900m 1000m 1100m 1200m 1300m 1400m 1500m
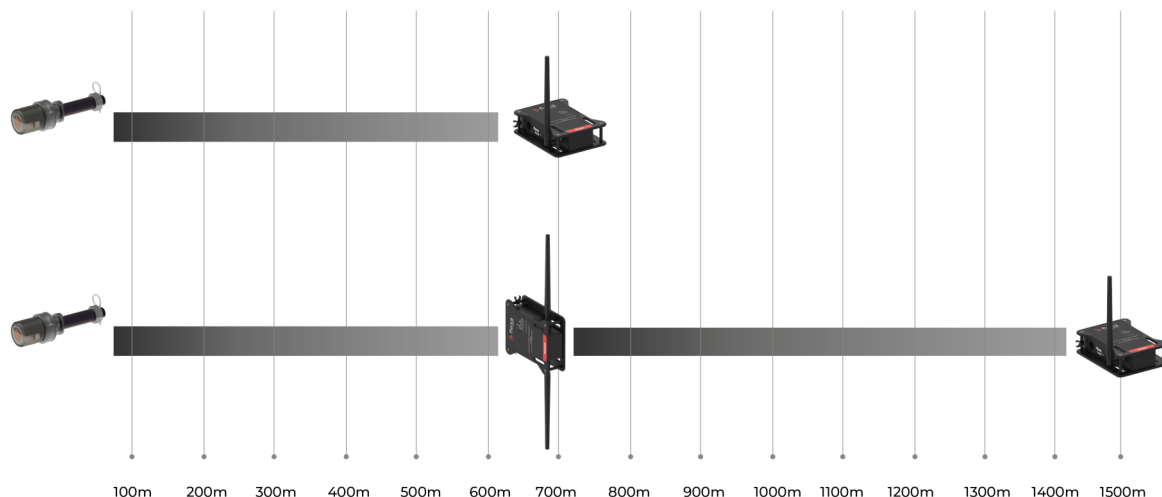
In case it is necessary to cover longer distances or there are large obstacles to overcome, it is possible to add Repeaters, which can be located as far as 600 meters from the Smart Pins and 700 meters from the Gateway. It is not possible to connect multiple Repeaters in series: each Repeater needs a direct connection to the Gateway.

The data shown may vary without notice. Please visit our website for any updates

www.flexasensors.com