

5100L-5105L

TENSION LOAD CELL

Tension load cells combining sturdiness and easiness to install.

Model : 5100L-500kN



Features

- Wide range of capacities : 2 t up to 100 t
- Easy to install, compact design
- Protection IP 66
- Material : Stainless steel (5100L), Nickel plated steel (5105L)
- Cable length: See drawing's table (CL)
- Available options (non exhaustive list):
 - o high service temperature (up to 180 °C)
 - o ATEX intrinsic safety Ex II 1GD Ex ia IIC T6 or T4 Ga Ex ia IIIC T80 °C Da
 - o protection IP68 or special for marine environment
 - o amplified output (V or mA) and digital output signal (RS-232C, RS-485, USB)

Applications

The SENSY's load cell 5100L-5105L is perfectly designed to the following applications :

- Towing force measurement (marine)
- Force measuring on rigging
- Weighing of hanging load

Capacities

5100L – 5105L : 2 – 3 – 5 – 7.5 – 10 – 15 – 20 – 30 – 50 – 75 – 100 t

Specifications	SL - HOIST	0.25	
Combined error	< ± 0.5	< ± 0.25	% F.S.
Linearity error	< ± 1	< ± 0.25	% F.S.
Repeatability error	< ± 0.25	< ± 0.1	% F.S.
Creep error over 30 min.	< ± 0.3	< ± 0.1	% F.S.
Zero shift after loading	< ± 0.5	< ± 0.025	% F.S.
Reference temperature	23	23	°C
Nominal temperature range	-10...+45	-10...+45	°C
Service temperature range	-30...+70	-30...+70	°C
Storage temperature range	-50...+85	-50...+85	°C
Temperature coefficient of the sensitivity	< ± 0.2	< ± 0.05	% F.S./10 °C
Temperature coefficient of zero signal	< ± 0.2	< ± 0.035	% F.S./10 °C
Zero balance	± 0.02	± 0.02	mV/V
Sensitivity tolerance	< ± 0.5	< ± 0.3	%
Input resistance	352 ± 2	352 ± 2	Ohm
Output resistance	352 ± 2	352 ± 2	Ohm
Insulation resistance (50V)	> 5000	> 5000	Megaohm
Reference excitation voltage	10	10	VDC
Nominal range of excitation voltage	3..12	3..12	VDC
Nominal sensitivity	1	1.5	mV/V
Safe load limit	200	150	% F.S.
Breaking load	> 500	> 300	% F.S.
Static lateral force limit	150	10	% F.S.
Permissible dynamic loading	75	40	% F.S.

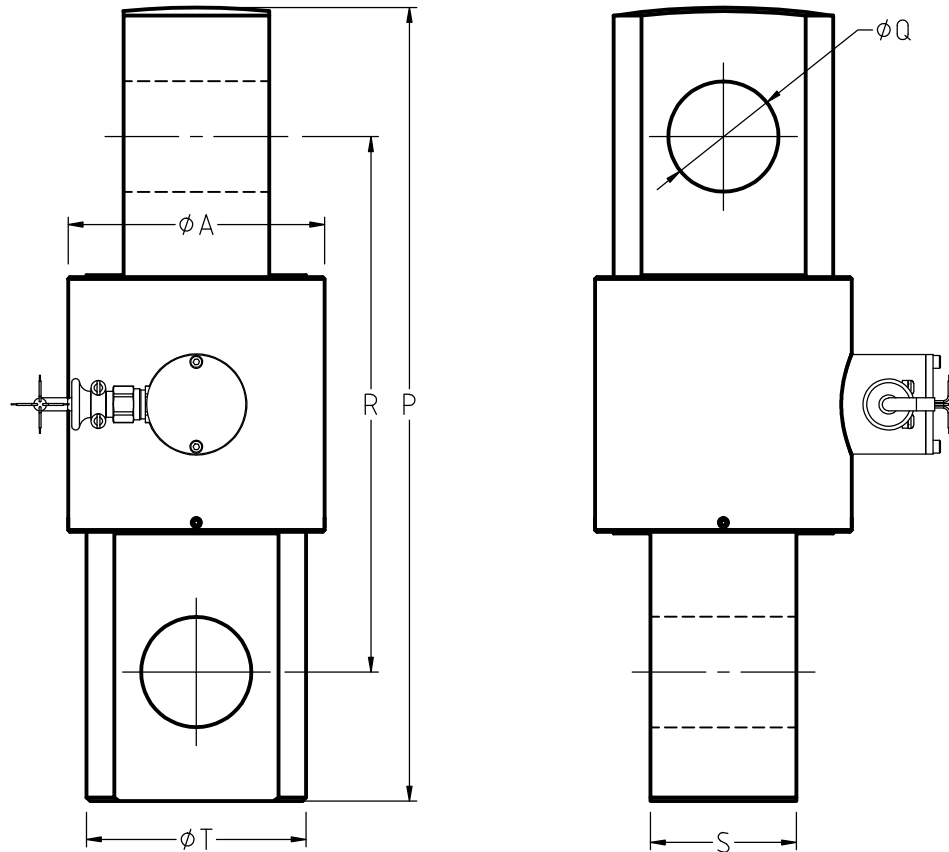
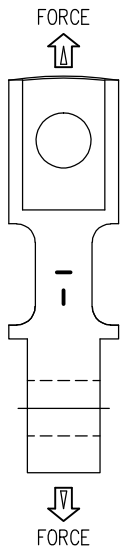
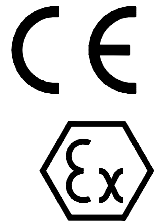
F.S.: full scale - Specifications subject to change without notice

LOAD CELLS

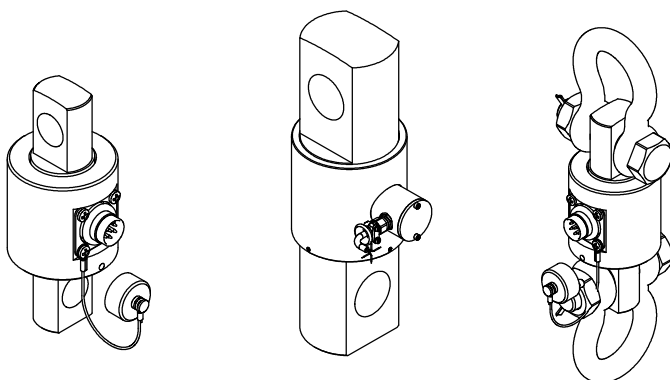
model 5100L stainless steel
 model 5105L alloy steel

TENSION

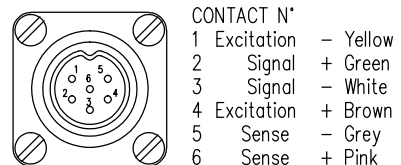
Range 2-100t IP66
 Cable length : see table (CL)



CAPACIT.	φA	P	φQ	R	S	φT	CL	Weight
2 - 3 t.	50	144	18	108	20	35	3 m	±1.5 kg
5 t.	60	160	24	112	30	45	3 m	±2 kg
7.5-10 t	80	240	35	170	44	64	3 m	±5.5 kg
15 -20 t	100	310	42	226	52	86	6 m	±12.8 kg
30 -50 t	139	430	58	290	78	109	6 m	±25 kg
75 -100t	180	520	80	348	100	149	12 m	±65 kg



FEMALE-MALE CONNECTOR DIN 45322



CONTACT N°
 1 Excitation - Yellow
 2 Signal + Green
 3 Signal - White
 4 Excitation + Brown
 5 Sense - Grey
 6 Sense + Pink

Standard : Cable screen not connected to transducer
 Option f : Cable screen connected to transducer