

3110-3115

HEAVY COMPRESSION LOAD CELL

High capacity compression load cells.

Model 3115S - 5MN - V



Features

- Material : Nickel plated steel (3115) or stainless steel (3110)
- Protection IP 65
- A whole range of mounting accessories is available
- 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 redundant dual Wheatstone bridge
 - o amplified (0..10 V, 4..20 mA) and digital output signal (RS-232C, RS-485, USB)
- Also available as standard reference load cells following ISO 376 (EN10002/3) (Class "0.5" and "00") (see specific data sheet)

Applications

The SENSY's load cells 3110-3115 are perfectly designed to the following applications :

- Industrial force measurement, industrial process control (ISO 9000, ...)
- Structure weighing, calibration of testing machines

Capacities

3110 - 3115 : 30 - 50 - (75) -100 - (150) - 200 - 300 - 500 kN
(0.75) - 1 - 1.5 - 2 - 3 - 5 - 7.5 - 10 - 15 - 20 - 30 MN

Specifications	0.25	0.1	0.05	
Accuracy class	0.25 % F.S.	0.1% F.S.	0.05 % F.S.	-
Combined error	< ± 0.25	< ± 0.1	< ± 0.05	% F.S.
Linearity error	< ± 0.25	< ± 0.1	< ± 0.04	% F.S.
Repeatability error	< ± 0.1	< ± 0.03	< ± 0.02	% F.S.
Creep error over 30 min.	< ± 0.1	< ± 0.06	< ± 0.04	% F.S.
Zero shift after loading	< ± 0.025	< ± 0.015	< ± 0.01	% F.S.
Reference temperature	23	23	23	°C
Nominal temperature range	-10...+45	-10...+45	-10...+45	°C
Service temperature range	-30...+70	-30...+70	-30...+70	°C
Storage temperature range	-50...+85	-50...+85	-50...+85	°C
Temperature coefficient of the sensitivity	< ± 0.05	< ± 0.05	< ± 0.035	% F.S./10 °C
Temperature coefficient of zero signal	< ± 0.035	< ± 0.035	< ± 0.03	% F.S./10 °C
Zero balance	± 0.02	± 0.02	± 0.02	mV/V
Sensitivity tolerance	< ± 0.3	< ± 0.3	< ± 0.3	%
Insulation resistance (50V)	> 5000	> 5000	> 5000	Megaohm
Reference excitation voltage	10	10	10	VDC
Nominal range of excitation voltage	3..12	3..12	3..12	VDC
Nominal sensitivity	1.5	1.5	1.5	mV/V
Safe load limit	150	150	150	% F.S.
Breaking load	>300	>300	>300	% F.S.
Static lateral force limit	15	15	15	% F.S.
Permissible dynamic loading	50	50	50	% F.S.
Input resistance	350..702 ± 2	350..702 ± 2	350..702 ± 2	Ohm
Output resistance	350..702 ± 2	350..702 ± 2	350..702 ± 2	Ohm

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

LOAD CELLS

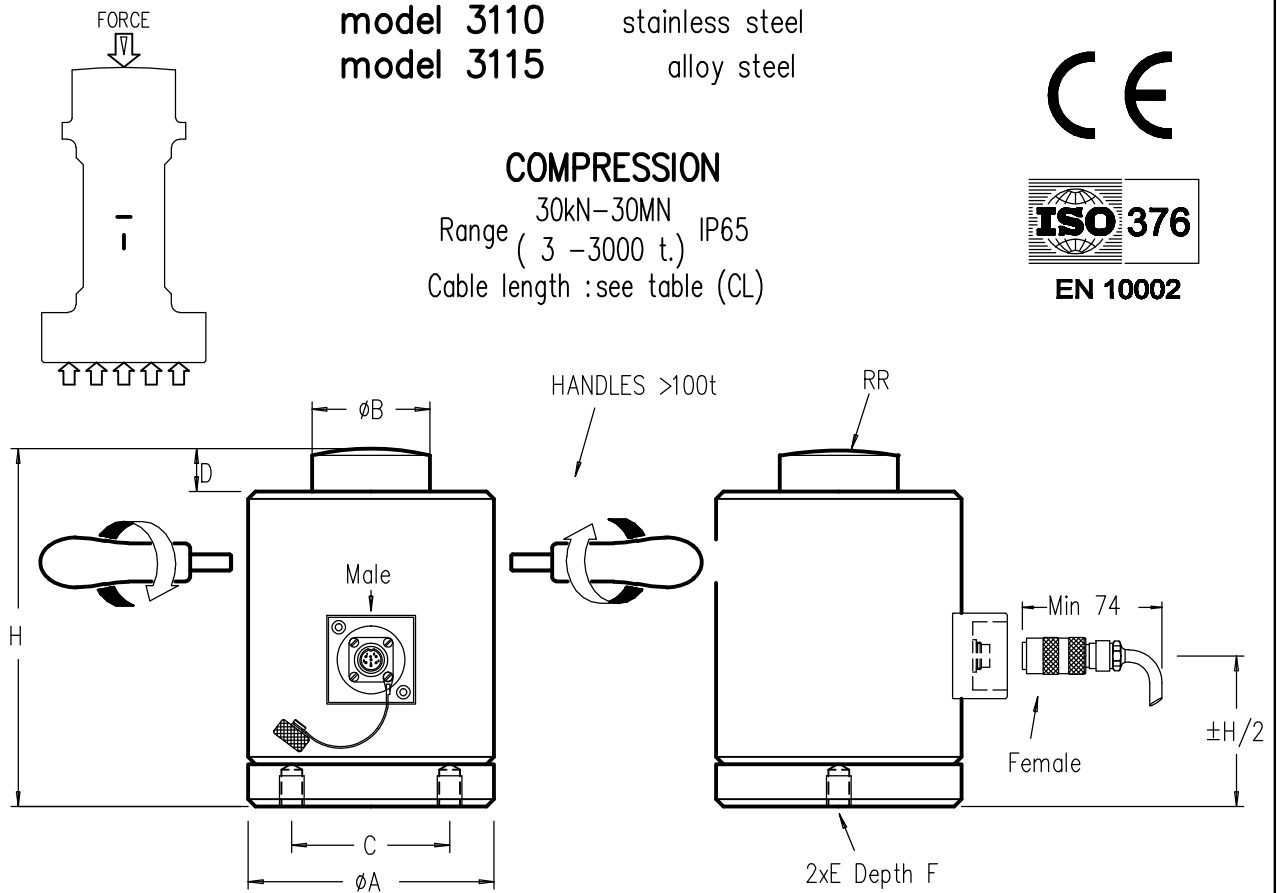
model 3110 stainless steel
 model 3115 alloy steel

COMPRESSION

Range 30kN-30MN IP65
 (3 - 3000 t.)
 Cable length : see table (CL)

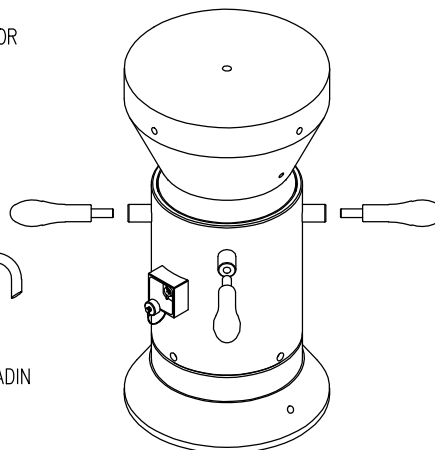
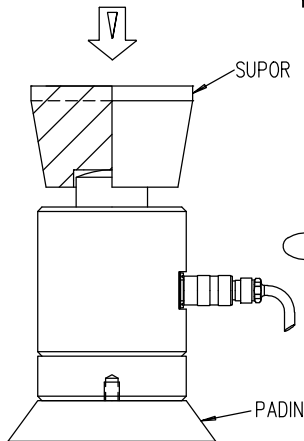


EN 10002

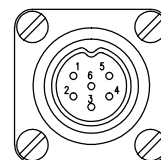


CAPACITIES	φA	φB ^{-0.05/-0.15}	C	D	E	F	H	RR	CL	Max.Deflexion	R Input(ohms)	Weight
30 - 50 kN	64	36	45	20	M10	12	135	250	6 m	0.12 mm	±350 Ω (0.25,0.1%) ±700 Ω (0.05%,0.03% or cl 1,cl 0.5,cl 00 to ISO 376)	2kg
75 - 200 kN					M12	15	160	300		0.16-0.18 mm		2.2kg
300-500 kN	89	56	60	30	M16	16	190	400		0.18-0.20 mm		4.5kg
0.75 - 1 MN	99	64	65							0.33-0.34 mm		6 kg
1.5 - 2 MN	119	90	90	40	M20	20	270	450		0.29-0.35 mm		20kg
3 MN	159	125	100							±0.4 mm		42kg
5 MN	205	160	125	50	M30	35	350	500	±0.5 mm	90kg		
7.5-10 MN	294	200	200	60					40	460	600	±0.7 mm
15 - 20 MN	364	250	270	75	M36	50	550	800	12 m	±0.8 mm	446kg	
30 MN	445	300	300							600	1000	±0.85 mm

Remark : 2 - 30 MN (200-3000t) usually to customer design specification



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

Cable screen not connected to transducer