

# 3110 - 3115

## HEAVY COMPRESSION LOAD CELLS (STANDARD REFERENCE FORCE TRANSDUCER)

- Canister, high capacity compression load cells
- Stainless steel (3110) or Alloy steel (3115)
- Protection IP 65
- Standard reference load cells especially manufactured to ISO 376 and EN10002-3 norms in class "05" or "00"
- Available in high output signal version
- Redundant dual Wheatstone Bridge available
- A whole range of mounting accessories is proposed



Model 3115S – 5MN – V

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

- All kind of testing applications
- Industrial process control (ISO 9000...)
- Calibration of testing machines
- Standard calibration of load cells



3115S + SUP + PAD + H

### STANDARD AVAILABLE CAPACITIES :

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

TECHNISCHE DATEN					
Accuracy class		0.25	0.1 1000 d	0.05 2000 d	0.03 3000 d
Linearity error	% F.S.	< ± 0.25	< ± 0.1	< ± 0.05	< ± 0.025
Hysteresis error	% F.S.	< ± 0.25	< ± 0.1	< ± 0.05	< ± 0.025
Non - repeatability	% F.S.	< ± 0.1	< ± 0.03	< ± 0.02	< ± 0.015
Creep error over 30 min.	% F.S.	< ± 0.1	< ± 0.06	< ± 0.04	< ± 0.025
Zero shift after loading	% F.S.	< ± 0,025	< ± 0.015	< ± 0.01	< ± 0.0075
Reference temperature	°C	23	23	23	23
Nominal temperature range	°C	- 10...+ 45	- 10...+ 45	- 10...+ 45	- 10...+ 45
Service temperature range	°C	- 30...+ 70	- 30...+ 70	- 30...+ 70	- 30...+ 70
Storage temperature range	°C	- 50...+ 85	- 50...+ 85	- 50...+ 85	- 50...+ 85
Temperature coefficient of the sensitivity	% /10°C	< ± 0.05	< ± 0.05	< ± 0.035	< ± 0.015
Temperature coefficient of zero signal	% F.S./10°C	< ± 0.035	< ± 0.035	< ± 0.03	< ± 0.023
Nominal sensitivity	mV/V	1,5			
Zero balance	mV/V	± 0.02	± 0.02	± 0.02	± 0.02
Sensitivity tolerance (g=9,8107 m/s²)	%	< ± 0.3	< ± 0.3	< ± 0.3	< ± 0.1
Input / Output resistance	Ohm	702 ± 20	351 ± 2	351 ± 2	702 ± 4
Insulation resistance (50V)	MOhm	> 5000	> 5000	> 5000	> 5000
Nominal excitation voltage	V	5 to 10	5 to 10	5 to 10	5 to 10
Nominal range of the excitation voltage	V	2...15	2...15	2...15	2...15
Safe load limit	% F.S.	150	150	150	150
Breaking load	% F.S.	300	> 300	> 300	> 300
Static lateral force limit	% F.S.	15			
Permissible dynamic loading	% F.S.	50	50	50	50

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

## LOAD CELLS

model 3110 stainless steel  
 model 3115 alloy steel

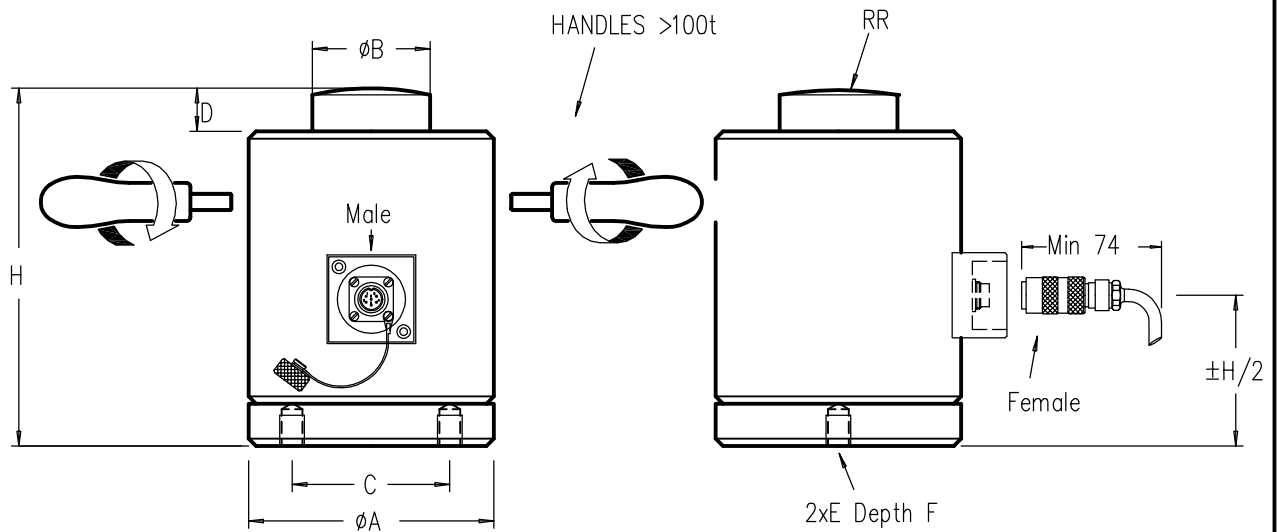


### COMPRESSION

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

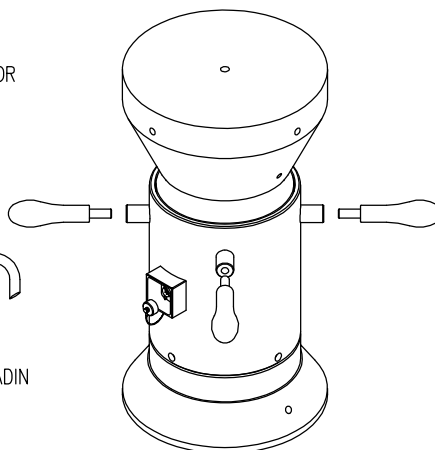
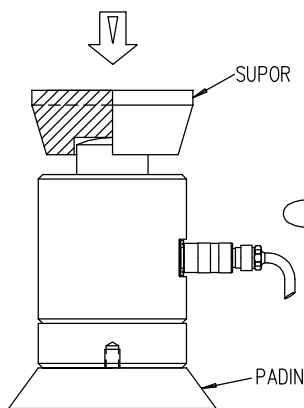


EN 10002

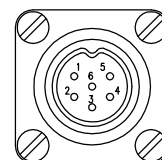


CAPACITIES	ØA	ØB $\begin{smallmatrix} -0.05 \\ 0.15 \end{smallmatrix}$	C	D	E	F	H	RR	CL	Max.Deflexion	Weight	R Input(ohms)
30 - 50 kN	64	36	45	20	M10	12	135	250	6 m	0.12 mm	2kg	±350 Ω (0.25,0.1%) ±700 Ω (0.05%,0.03% or cl 1,cl 0.5,cl 00 to ISO 376
75 -200 kN										0.16-0.18 mm	2.2kg	
300-500 kN	89	56	60	30	M12	15	160	300		0.18-0.20 mm	4.5kg	
0.75 -1 MN	99	64	65		M16	16	190	400		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				35	350		500	±0.4 mm	
5 MN	205	160	125	50	M30	40	460	600	±0.5 mm	90kg		
7.5-10 MN	294	200	200	60			40	460	600	±0.7 mm	243kg	
15 - 20 MN	364	250	270	75	M36	50	550	800	±0.8 mm	446kg		
30 MN	445	300	300				600	1000	±0.85 mm	700kg		

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

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