

High-capacity compression load cells.



Model 3115 - 3 MN



Features

- o Wide range of capacities: 30 kN (3 t) up to 50 MN (5.000 t)
- o Material: nickel-plated steel (3115) or stainless steel (3110)
- o Protection class: IP65
- o A whole range of mounting accessories is available
- o Cable length: see drawing table - CL (other lengths available on request)
- o Also available as standard reference load cells according to ISO 376 (classes 1, 0,5 and 00 - see specific data sheet 3115-ISO)

Most popular options



Ex i



Application(s)

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

- Industrial force measurement, industrial process control (ISO 9000, ...),
- Primary transducer for universal testing machine, structure weighing.

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 - 40 - 50 MN

Specifications	0.25 %	0.1 %	0.05 %	0.03 %	
Accuracy class	0.25 % F.S.*	0.1% F.S.*	0.05 % F.S.*	0.03% F.S.*	-
Combined error (non-linearity + hysteresis)	<± 0.25	< ± 0.1	<± 0.05	<± 0.03	% F.S.*
Repeatability error	<± 0.1	<± 0.03	<± 0.02	<± 0.015	% F.S.*
Creep error over 30 min.	<± 0.1	<± 0.06	<± 0.04	<± 0.025	% F.S.*
Reference temperature	23	23	23	23	°C
Compensated temperature range	-10...+45	-10...+45	-10...+45	-10...+45	°C
Service temperature range	-30...+70	-30...+70	-30...+70	-30...+70	°C
Storage temperature range	-50...+85	-50...+85	-50...+85	-50...+85	°C
Temperature coefficient of the sensitivity	<± 0.05	<± 0.05	<± 0.035	<± 0.015	% F.S./10°C
Temperature coefficient of zero signal	<± 0.035	<± 0.035	<± 0.03	<± 0.023	% F.S./10°C
Zero balance	± 0.02	± 0.02	± 0.02	± 0.02	mV/V
Nominal sensitivity	1.5	1.5	1.5	1.5	mV/V
Sensitivity tolerance	<± 0.3	<± 0.3	<± 0.3	<± 0.2	%
Input resistance	350..700 ± 2	350..700 ± 2	350..700 ± 2	350..700 ± 2	ohm(s)
Output resistance	350..700 ± 2	350..700 ± 2	350..700 ± 2	350..700 ± 2	ohm(s)
Insulation resistance (50 V)	> 5000	> 5000	> 5000	> 5000	Mohm(s)
Reference excitation voltage	10	10	10	10	VDC
Permissible nominal range of excitation voltage	3...12	3...12	3...12	3...12	VDC
Safe load limit	150	150	150	150	% F.S.*
Breaking load	>300	>300	>300	>300	% F.S.*
Permissible dynamic loading	50	50	50	50	% F.S.*
Static lateral force limit	15	15	15	15	% F.S.*

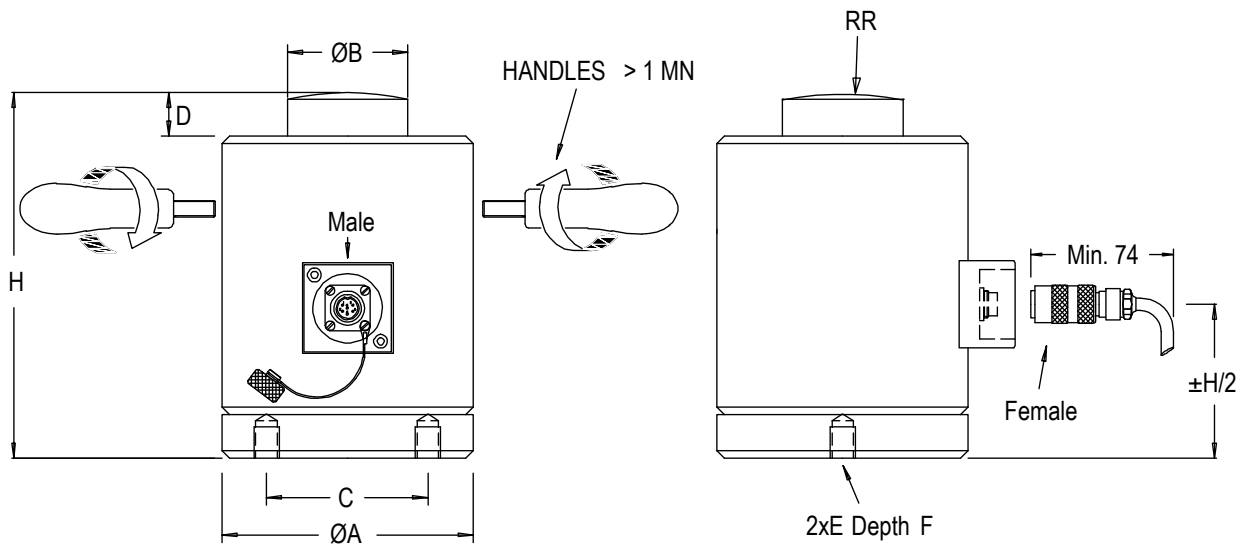
* F.S. : Full Scale.

Specifications subject to change without notice.



ISO 9001 certified

3110-3115 > STANDARD DIMENSIONS



Ref. Item*	Capacities	ØA	ØB	C	D	E	F	H	RR	CL (m)	Max. Deflexion	Weight (kg)
311x-A	30 - 50 kN	64	36	45	20	M10	12	135	250	6	0.12	2
311x-B	75 - 200 kN	64	36	45	20	M10	12	135	250	6	0.16-0.18	2.2
311x-C	300 - 500 kN	89	56	60	30	M12	15	160	300	6	0.18-0.20	4.5
311x-D	0.75 - 1 MN	99	64	65	30	M16	16	190	400	6	0.33-0.34	6
311x-E	1.5 - 2 MN	119	90	90	30	M16	16	225	400	6	0.29-0.35	20
311x-F	3 MN	159	125	100	40	M20	20	270	450	12	±0.4	42
311x-G	5 MN	205	160	125	50	M20	35	350	500	12	±0.5	90
311x-H	7.5 - 10 MN	294	200	200	60	M30	40	460	600	12	±0.7	243
311x-I	15 MN	330	250	250	65	M30	40	510	800	12	±0.75	330
311x-J	20 MN	364	250	270	75	M36	50	550	800	12	±0.8	446
311x-K	30 MN	445	300	300	75	M36	50	660	1000	12	±1	770
311x-L	40 MN	495	360	330	90	M36	50	730	1200	12	±1.1	1060
311x-M	50 MN	540	430	360	90	M36	50	900	2000	12	±1.2	1587

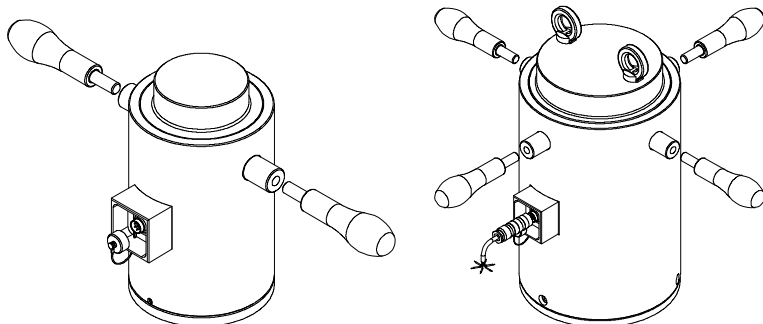
Note: 2 - 50 MN (200 - 5000 t) usually according to customer's design specifications.

*x=Material: 3110 - stainless steel; 3115 - alloy steel

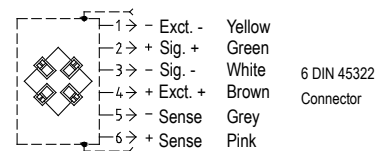
→ Other capacities and dimensions available on request

Dimensions in mm

Other views



Wiring



Standard: Cable screen not connected to the transducer

Load direction

