

3115-ISO

HIGH-CAPACITY COMPRESSION STANDARD REFERENCE FORCE TRANSDUCERS

Standard reference force transducers specially designed according to ISO 376 standard (classes 1, 0,5 and 00).



Model 3115-ISO - 3 MN



Features

- o Wide range of capacities (up to 50 MN)
- o Complete range of load accessories
- o Protection class: IP65
- o Material: alloy steel (stainless steel available on request)
- o Cable length: see drawing table - CL (other lengths available on request)

Most popular options



Application(s)

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

- Calibration of testing machines according to ISO 7500.

Note: this standard reference force transducer covers the calibration of standard force measurement instruments used for static verification of uniaxial testing machines.

Capacities

3115-ISO: 200 - 300 - 500 kN
(0.75) - 1 - 1.5 - 2 - 3 - 5 - 7.5 - 10 - 15 - 20 - 30 - 40 - 50 MN

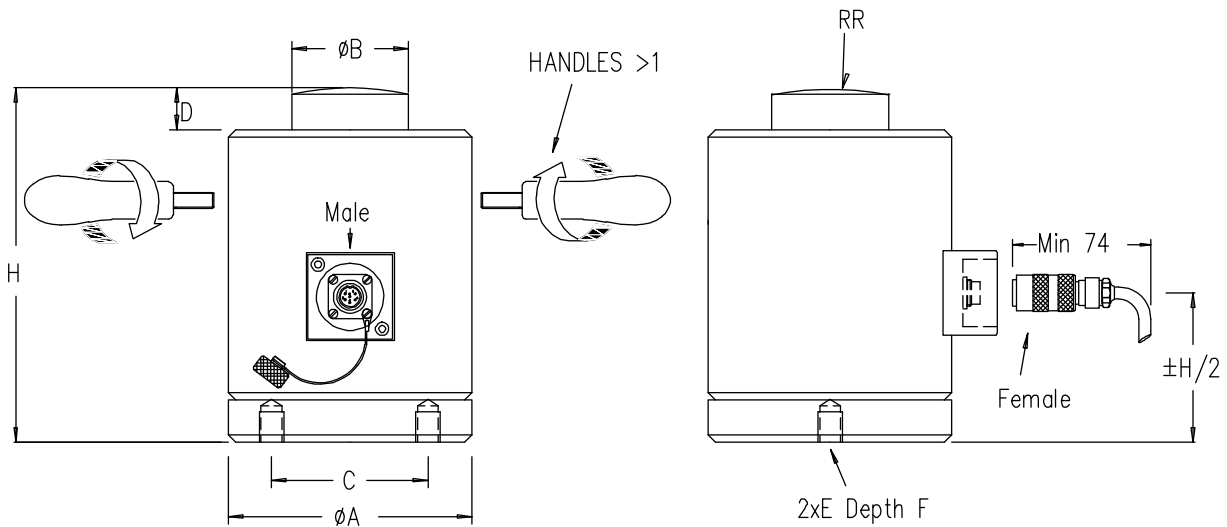
Specifications	1	05	00	
Relative reversibility error	<± 0.3	<± 0.15	<± 0.07	% M.V.**
Relative repeatability error with rotation	<± 0.2	<± 0.1	<± 0.05	% M.V.**
Relative repeatability error without rotation	<± 0.1	<± 0.05	<± 0.025	% M.V.**
Stabilization time after power excitation supply	200...600	200...600	200...600	s
Creep error over 30 min.	<± 0.1	<± 0.05	<± 0.025	% F.S.*
Zero shift after loading	<± 0.05	<± 0.025	<± 0.012	% F.S.*
Reference temperature	20	20	20	°C
Compensated 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	<± 0.035	<± 0.035	<± 0.015	% F.S./10°C
Temperature coefficient of zero signal	<± 0.03	<± 0.03	<± 0.023	% F.S./10°C
Zero balance	± 0.02	± 0.02	± 0.02	mVV
Nominal sensitivity	1.5	1.5	1.5	mVV
Input resistance	350...700 ± 2	350...700 ± 2	350...700 ± 2	ohm(s)
Output resistance	350...700 ± 2	350...700 ± 2	350...700 ± 2	ohm(s)
Insulation resistance (50 V)	> 5000	> 5000	> 5000	Mohm(s)
Reference excitation voltage	10	10	10	VDC
Permissible nominal range of excitation voltage	3...12	3...12	3...12	VDC
Safe load limit	110	110	110	% F.S.*
Breaking load	>300	>300	>300	% F.S.*

* : Full Scale of the force transducer.

** : M.V. is the measured value. The mentioned values are only valid if M.V. >= 10 % of full scale.

Specifications subject to change without notice.

3115-ISO > STANDARD DIMENSIONS



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

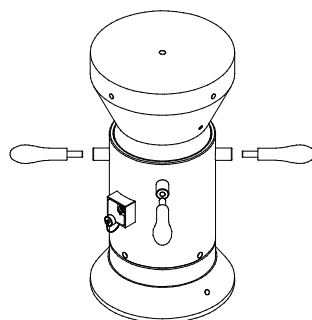
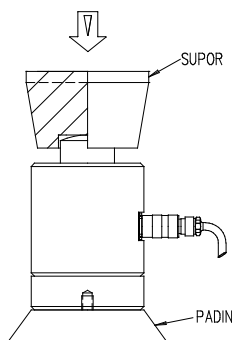
Note: 2 - 50 MN (200 - 5000 t) according to customer's design specification.

*x=Material: 3110-ISO - stainless steel; 3115-ISO - nickel-plated steel

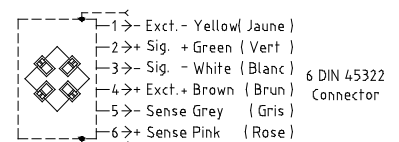
→ Other capacities and dimensions available on request

Dimensions in mm

Accessories

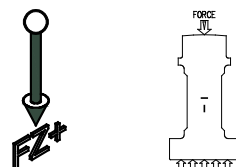


Wiring

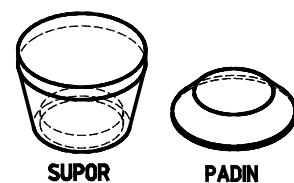
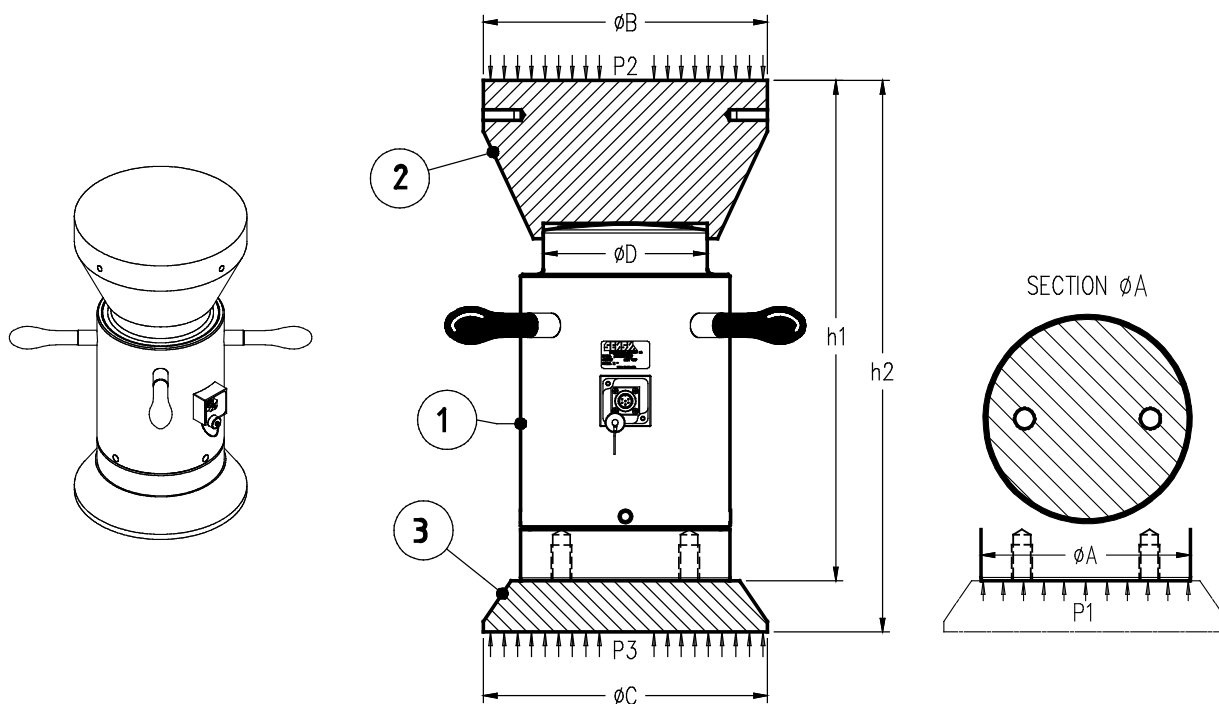


Standard : Cable screen not connected to transducer / Faradisation non connectée au capteur

Load direction



3115-ISO > CHOICE OF LOADING PADS

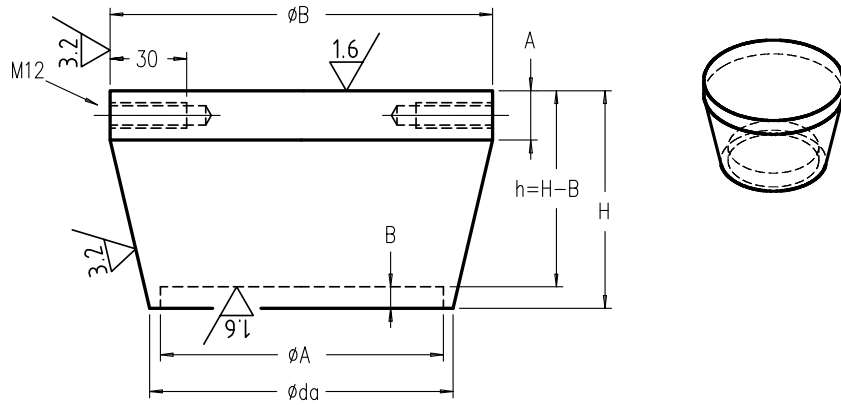


Ref. Item	Force ①	ØD	ØA	Section ØA mm ²	Pressure P1 N/mm ²	Section ØB mm ²	Pressure P2 N/mm ²	Section ØC mm ²	Pressure P3 N/mm ²	h1	h2	Total weight (kg)	ACCESSORIES			
													SUPOR ②	PADIN ③		
311x-ISO-B	200 kN	36	64	2670	75	69	3739	53	/	/	/	174	/	3.2	SUPOR-36	NOT NECESSARY
311x-ISO-C	300 kN	56	89	5449	55	79	4902	61	/	/	/	200	/	6	SUPOR-56	
311x-ISO-C	500 kN	56	89	5449	92	79	4902	102	/	/	/	200	/	6	SUPOR-56	
311x-ISO-D	0.75 MN	64	99	6686	112	99	7698	97	129	13070	57	237	262	11.1	SUPOR-64	PADIN-100B
311x-ISO-D	1 MN	64	99	6686	150	114	10207	98	129	13070	77	248	273	12.5	SUPOR-64E	PADIN-100B
311x-ISO-E	1.5 MN	90	119	9985	150	164	21124	71	158	19607	77	317	342	36	SUPOR-90B	PADIN-125A
311x-ISO-E	2 MN	90	119	9985	200	164	21124	95	158	19607	102	317	342	36	SUPOR-90B	PADIN-125A
311x-ISO-F	3 MN	125	159	18241	164	195	29865	100	248	48305	62	360	420	79	SUPOR-125B	PADIN-160
311x-ISO-G	5 MN	160	205	31103	161	248	48305	104	248	48305	104	476	506	141	SUPOR-160	PADIN-210
311x-ISO-H	7.5 MN	200	294	64638	116	308	74506	101	353	97868	77	615	650	342	SUPOR-200A	PADIN-300
311x-ISO-H	10 MN	200	294	64638	155	353	97868	102	353	97868	102	640	675	372	SUPOR-200B	PADIN-300
311x-ISO-I	15 MN	250	330	85530	175	438	150674	100	438	150674	100	730	790	604	SUPOR-250A	PADIN-330
311x-ISO-J	20 MN	250	364	99752	200	503	198713	101	503	198713	101	805	885	845	SUPOR-250B	PADIN-365
311x-ISO-K	30 MN	300	445	155528	193	594	277117	109	594	277117	109	957	1042	1397	SUPOR-300A	PADIN-445
311x-ISO-L	40 MN	360	495	192442	208	694	379367	106	694	379367	106	1077	1187	2122	SUPOR-360A	PADIN-495
311x-ISO-M	50 MN	430	540	229022	218	795	496391	100	795	496391	100	1298	1428	3202	SUPOR-430A	PADIN-540

→ Other capacities and dimensions available on request

Dimensions in mm

SUPOR > STANDARD DIMENSIONS

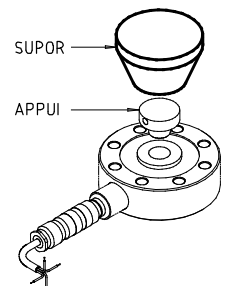
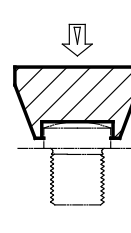
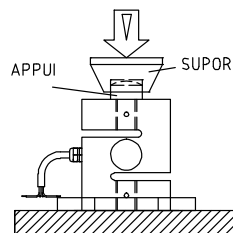
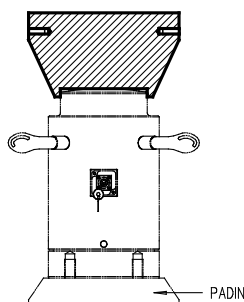
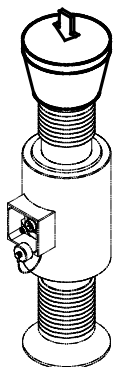


Ref. Item	Types	ØA	ØB	Øda	A	B	H	h	M12 L=30 (degree)	Weight (kg)
SUPOR-12	12	12	34	20	7	4	23	19	NO	0.12
SUPOR-20	20	20	49	30	8	5	31	26	NO	0.33
SUPOR-30	30	30	64	40	9	6	41	35	NO	0.74
SUPOR-36	36	36	69	46	10	7	46	39	NO	0.98
SUPOR-45	45	45	79	56	11	12	53	41	NO	1.5
SUPOR-56	56	56	79	66	12	8	48	40	NO	1.5
SUPOR-64	64	64	99	75	12	17	64	47	NO	2.8
SUPOR-64E	64E	64	114	75	12	17	75	58	NO	4.14
SUPOR-69	69	69	79	75	12	12	52	40	NO	1.6
SUPOR-90	90	90	129	100	15	17	79	62	NO	6
SUPOR-90B	90B	90	164	100	15	17	109	92	NO	12.2
SUPOR-110	110	110	195	135	20	19	109	90	2x to 180	18.7
SUPOR-125A	125A	125	158	135	20	19	94	75	2x to 180	11.3
SUPOR-125B	125B	125	195	135	20	19	109	90	2x to 180	18.3
SUPOR-160	160	160	248	±170	30	20	146	126	2x to 180	40
SUPOR-200A	200A	200	308	±210	30	20	175	155	2x to 180	73
SUPOR-200B	200B	200	353	±210	30	20	200	180	4x to 90	103
SUPOR-230	230	230	353	±270	50	35	211.5	176.5	4x to 90	125
SUPOR-250A	250A	250	438	±290	40	30	250	220	6x to 60	209
SUPOR-250B	250B	250	503	±290	40	30	285	255	6x to 60	294
SUPOR-300A	300A	330	594	±340	50	40	337	297	6x to 60	481
SUPOR-330A	330A	330	503	±370	50	50	301.5	251.5	6x to 60	341
SUPOR-360A	360A	360	694	±401	100	50	397	347	6x M24 / 360	818
SUPOR-400A	400A	400	594	±440	50	55	352	297	6x to 60	555
SUPOR-430A	430A	430	795	±470	±100	50	448	398	6x M30 / 360	1209

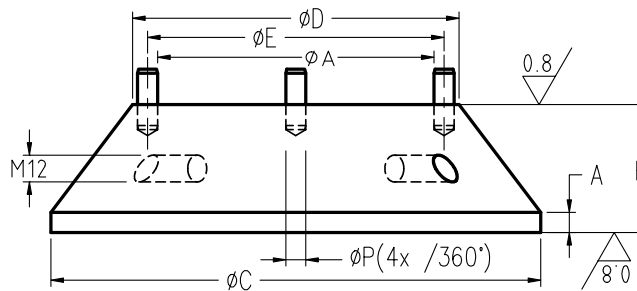
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Dimensions in mm

Other views



↳ PADIN > STANDARD DIMENSIONS



Ref. Item	Types	ØA	ØC	ØD	ØE	ØP	A	H	M12	Weight (kg)
PADIN-24	24	25	59	36	29	4	3	22	/	0.34
PADIN-30	30	31	64	40	35	4	3	22	/	0.4
PADIN-42	42	43	74	52	47	4	3	20	/	0.53
PADIN-45	45	46	79	56	50	4	3	21	/	0.64
PADIN-64	64	65	99	75	69	4	3	22	/	1.1
PADIN-64E	64E	65	129	75	69	4	4	25	/	1.8
PADIN-100A	100A	91	129	110	95	4	4	25	/	2.3
PADIN-100B	100B	100	129	110	104	4	4	25	/	2.3
PADIN-110E	110E	111	195	130	119	8	8	51	2x/360°	9.4
PADIN-125AA	125AA	120	158	144	128	8	6	25	/	3.7
PADIN-125AB	125AB	126	158	144	134	8	6	25	/	3.7
PADIN-125B	125B	126	195	150	134	8	8	45	2x/360°	9
PADIN-160	160	162	248	180	170	8	11	60	2x/360°	18.6
PADIN-200A	200A	202	308	235	214	12	12	67	2x/360°	32.9
PADIN-200B	200B	202	353	235	214	12	12	90	4x/360°	52.5
PADIN-210	210	207	248	225	215	8	6	30	2x/360°	11
PADIN-230	230	232	353	262	244	12	8	80	2x/360°	50
PADIN-250	250	252	438	280	264	12	10	80	4x/360°	69.75
PADIN-300	300	296	353	325	308	12	6	35	2x/360°	25.8
PADIN-330	330	333	438	370	349	16	8	60	4x/360°	62
PADIN-330A	330A	333	503	370	349	16	8	115	4x/360°	140
PADIN-365	365	367	503	400	379	12	8	80	4x/360°	105
PADIN-400A	400A	403	594	448	423	20	8	120	4x/360°	205
PADIN-445	445	448	594	485	464	16	8	85	4x/360°	156
PADIN-495	495	501	694	548	521	20	8	110	4x/360°	266
PADIN-540	540	546	795	613	576	30	8	130	4x M16 / 360°	405

→ Other capacities and dimensions available on request

Dimensions in mm

Other views

