

5100-5105

HIGH CAPACITY STANDARD REFERENCE FORCE TRANSDUCER TENSION / COMPRESSION

- Standard reference force transducer specially designed according to the norm ISO 376⁽¹⁾ (Class "1", "05" and "00")
- Broad range of capacities (up to 30 MN)
- Compact design
- Complete range of load accessories
- Protection: IP66
- Stainless steel (3110) or nickel plated alloy steel (3115)
- Also available with RS-232C or RS-485 output (option)
- Material: Stainless steel (5100)
Nickel plated alloy steel (5105)



Model 5105 – 500 kN

AVAILABLE CAPACITIES

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

	Class	1	05	00
Hysteresis		≤ ± 0.30	≤ ± 0.15	≤ ± 0.07
Repeatability with rotation (reproducibility)		≤ ± 0.20	≤ ± 0.10	≤ ± 0.05
Repeatability without rotation (repeatability)	% RO ⁽²⁾	≤ ± 0.10	≤ ± 0.05	≤ ± 0.025
Creep (over 30 minutes)		≤ ± 0.10	≤ ± 0.05	≤ ± 0.025
Return to zero		≤ ± 0.05	≤ ± 0.025	≤ ± 0.012
Reference temperature		+20		
Compensated temperature range	°C	-10 .. +45		
Service temperature range		-30 .. +70		
Storage temperature range		-50 .. +85		
Temperature coefficient on sensitivity	% RO / °C	≤ ± 0.035	≤ ± 0.035	≤ ± 0.015
Temperature coefficient on zero	% FS ⁽³⁾ / °C	≤ ± 0.03	≤ ± 0.03	≤ ± 0.023
Sensitivity	mV/V	1.5...2		
Time of stabilization after power excitation supply	s	200...600		
Input resistance	Ω	350 ± 3 or 700 ± 5		
Output resistance	Ω	350 ± 2 or 700 ± 4		
Insulation resistance	MΩ	> 5000		
Nominal excitation voltage	V	10		
Maximum excitation voltage	V	15		
Service load		100		
Limit load	% FS	110		
Breaking load		> 300		

⁽¹⁾ The class G0,5 of the norm DIN 51301 (D), the class 0 of the norm NFA 03-510 (F), the class 0 of the norm NBN X07-001 (B) and the class 0,5 of the norm EN 10002-3 are equivalent with the class 05 of the norm ISO376.

⁽²⁾ RO is the rated output (i.e.: measured value). The mentioned values are only valid if RO ≥ 20% of full scale).

⁽³⁾ FS is the full scale of the force transducer.

LOAD CELLS

model 5100 stainless steel
 model 5105 alloy steel

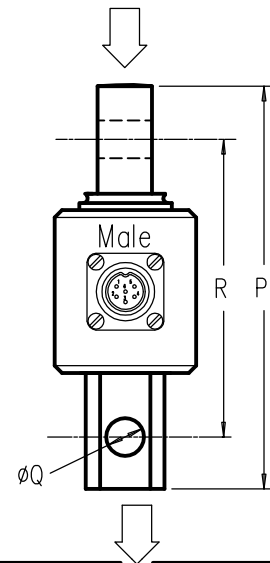
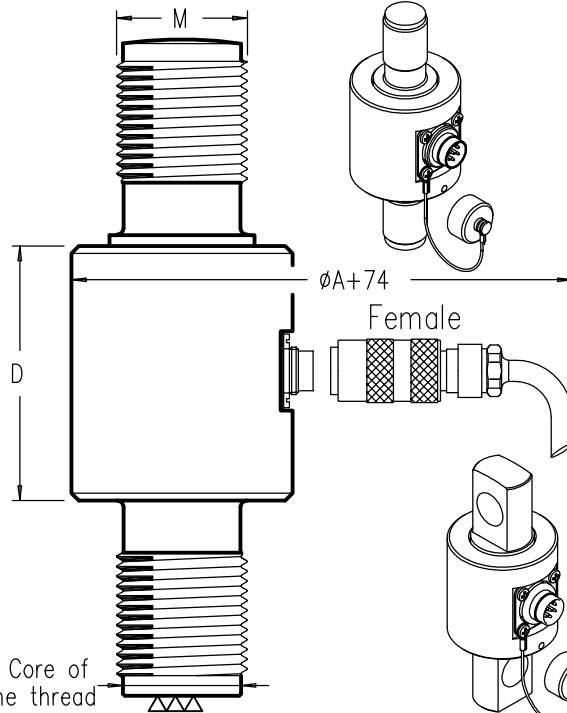
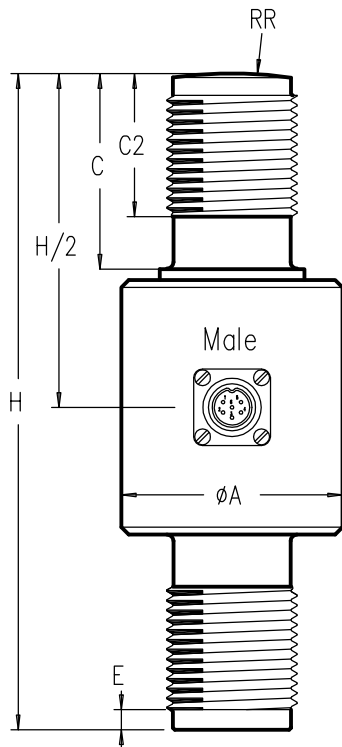
TENSION-COMPRESSION

Range 10kN-30MN IP66
 (1-3000 t.)
 Cable length : see table (CL)



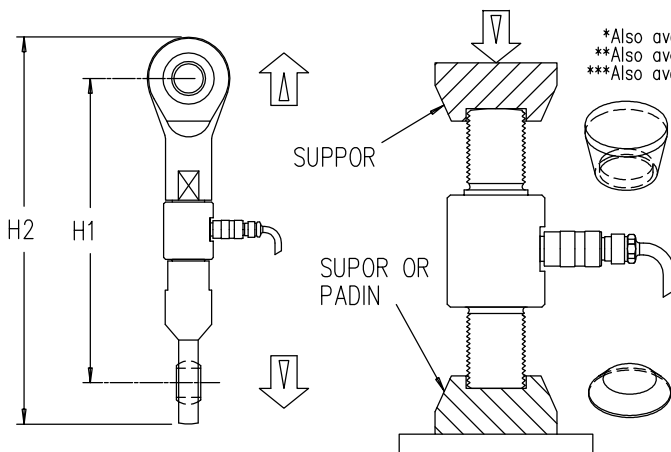
EN 10002

MODEL
5100L
5105L



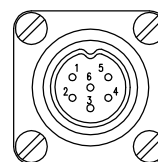
CAPACITIES	øA	C	C2	D	E	H	RR	CL	M	H1	H2	Max.Deflexion	R Input
10 - 50 kN	50	36	26	47	3	125	75	3 m	M24x2	245	307	0.02-0.08 mm	±350 Ω
75 -100 kN	60	48	35	73	3	170	80	3 m	M30x2	320	402	0.13-0.15 mm	±350 Ω (0.25,0.1%) ±700 Ω
150-200 kN	75	49	44	87	4	190	350	6 m	*M45x3	398	510	0.14-0.16 mm	(0.05%,0.03% or cl 1,cl 0.5,cl 00 to ISO 376
300-500 kN	88.5	69	65	119	5	265	400	6 m	M64x4	560	740	0.19-0.25 mm	
0.75-1.5 MN	111	95	85	145	5	340	400	6 m	**M90x4	/	/	0.30-0.42 mm	
2 - 3 MN	150	128	128	165	7	430	600	6 m	***M125x4	/	/	0.35-0.65 mm	
5 MN	180	162	158	180	8	520	800	6 m	M160x6	/	/	0.73 mm	±700 Ω
7.5- 10 MN	220	185	185	210	10	590	1000	6 m	M200x6	/	/	0.83 mm	
15 MN	280	230	230	230	10	710	1200	12m	M250x6	/	/	1 mm	
20 MN	360	300	300	240	12	860	1500	12m	M330x6	/	/	1.2 mm	
30 MN	390	330	330	250	13	930	1500	12m	M360x6	/	/	1.6 mm	

CAPACIT.	P	CL	øQ	R
2 - 3 t.	144	3 m	18	108
5 t.	160	3 m	24	112
7.5-10 t	240	3 m	35	170
15 -20 t	310	6 m	42	226
30 -50 t	430	6 m	58	290
75 -100t	520	12 m	80	348



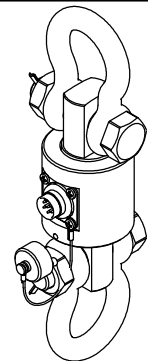
*Also available in M42x3
 **Also available in M64x4 from 0.75-1MN
 ***Also available in M110x4

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



Rev.2/3/2004