

APPLICATIONS

- Tensile and compression force measurement general applications
- Applications requiring overload protection mechanical stops
- Hybrid weighbridge (mechanical conversion)
- Official calibration
- Hanging tanks or reactors
- Packaging, counting, dosing applications



DESCRIPTION

Universal load cell combining high accuracy, sturdiness and easiness to install

- Wide range of capacities : 100 N \pm 1kN
- Overload protection in tension and compression (not for 2712-5kN and 2712-10kN) (Large version)
- Easy to install, compact design
- Protection IP54 / IP 65 (See drawing)
- Material : Anodized aluminum alloy
- Cable length: 3m
- Also available as standard reference load cells following ISO 376 (see 2712-ISO)

TECHNICAL FEATURES

10 – (15) – 20 – (30) – 50 – (75) – 100 – (150) – 200 – (300) – 500 – (750) – 1000daN

	0.1 %	0.03 %	0.02 %	
Accuracy class	0.1% F.S.*	0.03% F.S.*	0.02% F.S.*	-
Combined error (Non linearity + hysteresis)	<± 0.10	<± 0.03	<± 0.012	% F.S.
Linearity error	<± 0.10	<± 0.025	<± 0.015	% F.S.
Repeatability error	<± 0.03	<± 0.015	<± 0.01	% F.S.
Creep error over 30 min.	<± 0.06	<± 0.025	<± 0.015	% 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	<± 0.015	<± 0.008	% F.S./10°C
Temperature coefficient of zero signal	<± 0.035	<± 0.023	<± 0.013	% F.S./10°C
Sensitivity tolerance	± 0.02	± 0.02	± 0.02	mV/V
Input resistance	<± 0.3	<± 0.2	<± 0.05	%
Output resistance	352 ± 2	352 ± 2	352 ± 2	Ohm
Insulation resistance (50V)	352 ± 2	352 ± 2	352 ± 2	Ohm
Reference excitation voltage	>5000	>5000	>5000	Megaohm
Nominal sensitivity	10	10	10	VDC
Reference temperature	3..12	3..12	3..12	VDC
Nominal temperature range	2	2	2	mV/V
Safe load limit	120	120	120	% F.S.
Breaking load	<300*	<300*	<300*	% F.S.
Static lateral force limit	50	50	50	% F.S.
Permissible dynamic loading	50	50	50	% F.S.

*F.S.: full scale.

Overload protection if capacity < 5kN.

Specifications subject to change without notice.

LOAD CELL

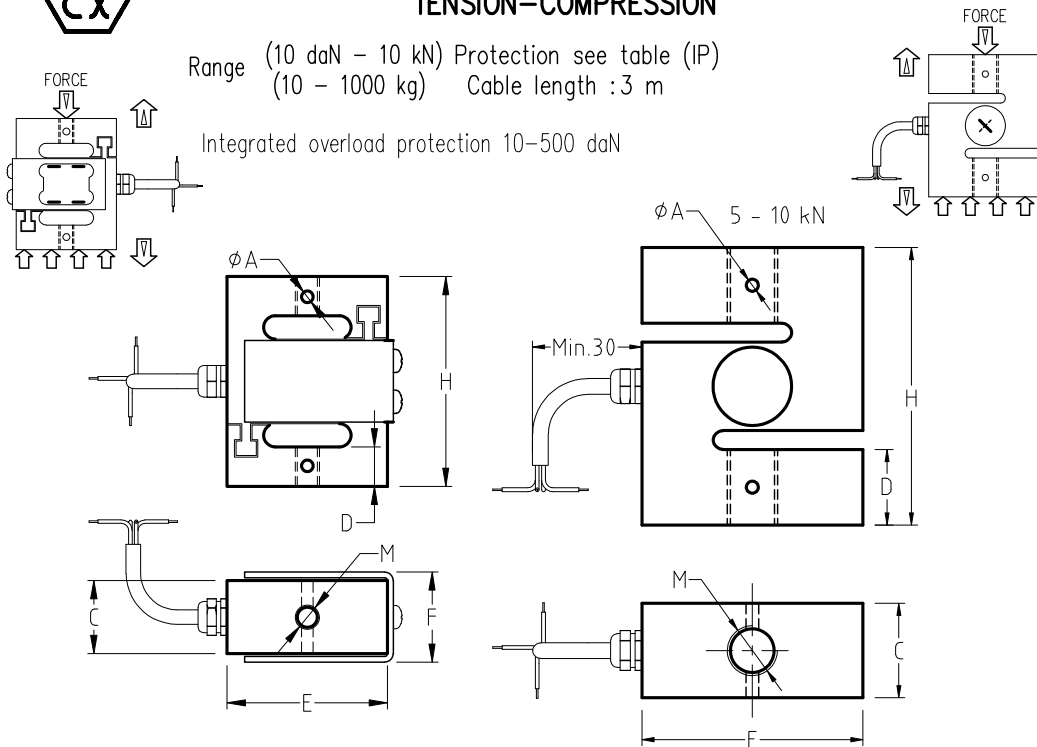
model 2712 aluminium

TENSION-COMPRESSION



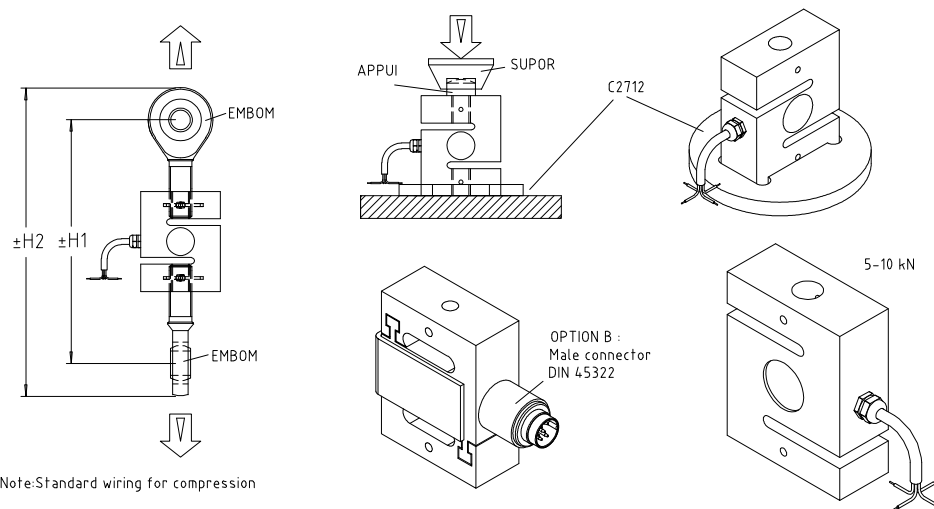
Range (10 daN - 10 kN) Protection see table (IP)
(10 - 1000 kg) Cable length : 3 m

Integrated overload protection 10-500 daN



CAPACITIES	φA	H	C	D	E	F	M	H1	H2	Breaking	Max.deflexion	IP	Weight
10 - 100 daN	4	72	25	13.5	55	±32	M8	132	167	1000 %	0.40 mm	IP 54	0.42 kg
150 - 500 daN (*)		88	30	24	70	/	M12	188	233	600 % Max.20 kN	0.35 mm	IP 65	
5 - 10 kN		88	30	24	70	/	M16	188	233	-----	0.30 mm	IP 65	

(*) : 500 daN 0.1% only



Note: Standard wiring for compression

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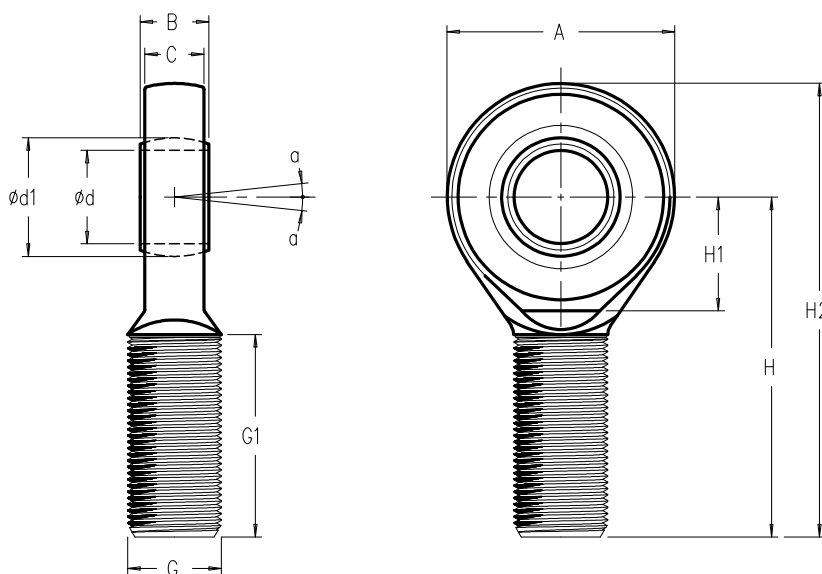
ACCESSORIES

model EMBOM coated steel

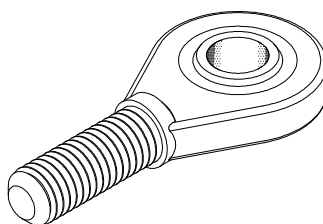
MAINTENANCE-FREE HEAVY-DUTY ROD ENDS WITH MALE THREAD

Friction stell/bronze autolubricated (M8 to M30x2)

stell/PTFE >M30x2



MODEL (DIMENSION G)	CAPACITIES (N)		ϕd	A	B	C	H	α	d1	G1	H1	H2	Weight
	DYNAMIC C	STATIC Co											
M6	3600	9000	6	21	6	4.3	36	13°	10	16	14	46.5	0.013
M8	5850	14600	8	24	8	6	42	15°	13	21	14	54	0.025
M10	8560	21600	10	29	9	7	48	12°	16	26	17	62.5	0.043
M12	11400	28500	12	34	10	8	54	10°	18	28	18	71	0.065
M16	22400	52000	17	46	14	11	69	10°	25	36	23	92	0.17
M20x1.5	31500	70000	20	53	16	13	78	9°	29	43	25	104.5	0.28
M24x2	51000	102000	25	64	20	17	94	7°	35.5	53	32	126	0.5
M30x2	65500	134000	30	73	22	19	110	6°	40.7	65	33	146.5	0.83
M36x3	112000	143000	35	82	25	21	140	6°	47	82	42	181	1.4
M45x3	220000	280000	50	112	35	30	185	6°	66	104	60	241	3.55
M56x4	440000	630000	70	160	49	42	235	6°	92	125	87	315	7.9
M60x4	345000	440000	60	135	44	38	225	6°	80	120	70	292.5	6.25
M64x4	570000	780000	80	180	55	47	270	6°	105	140	100	360	12



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SPHEREL Systems reserves the right to make any kind of design or functional modification at any moment without prior notice.