

APPLICATIONS

- Load limitation on EOT cranes, industrial weighing, force measurement,...

**DESCRIPTION**

Annular force transducers specially designed for applications requiring a load measurement through a centred.

Material: stainless steel

Protection class: IP67

Capacities:

- 5900 Force: 3 – 5 – (7.5) – 10 – (15) – 20 – 30 – 50 – 75 – 100 – 150 – (200) kN
- 5900 HOIST: 0.2 – 0.5 – (0.75) – 1 – (1.5) – 2 – 3 – 5 – 7.5 – 10 – 15 t

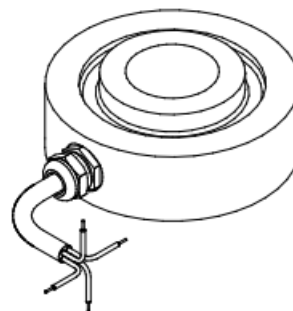
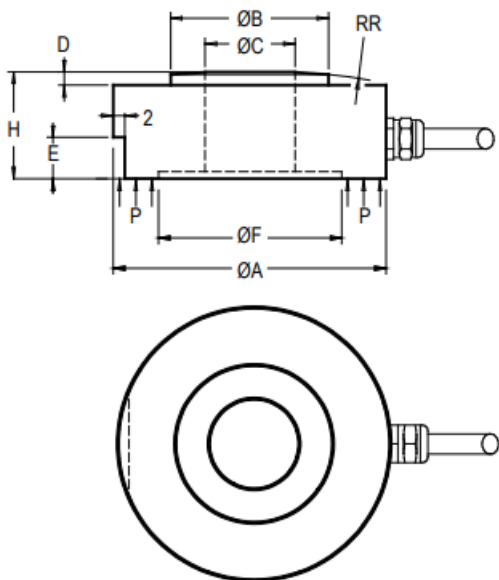
TECHNICAL FEATURES

	0,25 %	SL – FORCE	SL - HOIST	
Combined error (non-linearity-hysteresis)	<± 0.25	<± 0.25 – 1 **	0.5 – 2 **	% F.S.
Repeatability error	<± 0.1	<± 0.25	<± 0.25	% F.S.
Creep error over 30 min.	<± 0.1	<± 0.3	<± 0.3	% F.S.
Zero shift after loading	<± 0.025	<± 0.5	<± 0.5	% F.S.
Reference temperature	23	23	23	°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	<± 0.05	<± 0.2	<± 0.2	% F.S./10°C
Temperature coefficient of zero signal	<± 0.035	<± 0.2	<± 0.2	% F.S./10°C
Zero balance	± 0.02	± 0.02	± 0.02	mV/V
Nominal sensitivity	1.5	± 1.5	± 1	mV/V
Sensitivity tolerance	<± 0.3	<± 0.5	<± 0.5	%
Input resistance	700 ± 2	700 ± 2	700 ± 2	ohm(s)
Output resistance	700 ± 2	700 ± 2	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	150	150	200	% F.S.
Breaking load	> 300	> 300	> 300	% F.S.
Static lateral force limit	10	10	10	% F.S.
Permissible dynamic loading	40	50	75	% F.S.

F.S. : Full Scale

** Typical range of accuracy, depending on design and dimensions.

5900 STANDARD DIMENSIONS



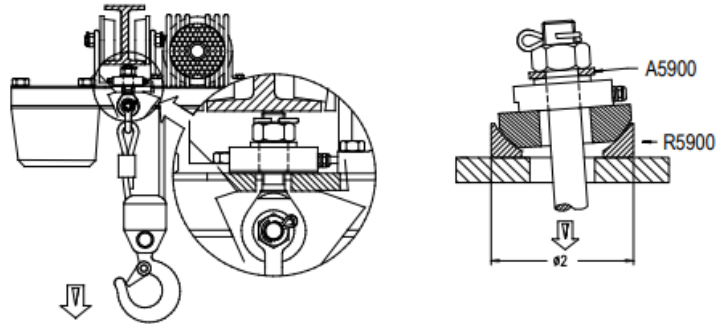
ORDER CODE

STANDARD													
Ref. Item	Capacities		ØA	ØB	ØC	D	E	ØF	H	P (N/mm ²)	RR	Max. Deflexion (mm)	Weight (kg)
	Force > 300 %*	Hoist > 500 %*											
5900-A	3 - 30 kN	0.2 - 2 t	59	30	16	4	3	49	25	4 - 24.5	300	0.05-0.15	0.5
5900-B	30 - 100 kN	3 - 7.5 t	79	50	30	5	4	70	31	30 - 74	500	0.20-0.35	1
5900-C	100 - 150 (200) kN	10 - 15 t	119	80	50	6	4.5	105	40	42 - 83	750	0.30-0.40	3.2
* Breaking load (% full scale)													
CUSTOM-MADE													
Capacities		ØC	ØB	ØA	H								
Force > 300 %*	Hoist > 500 %*												
3 - 30 kN	0.2 - 2 t	ØX	ØX+14	±ØX+43	23...25								
30 - 100 kN	3 - 7.5 t	ØX	ØX+20	±ØX+49	27...31								
100 - 150 (200) kN	10 - 15 t	ØX	ØX+30	±ØX+69	35...40								
* Breaking load (% full scale)													

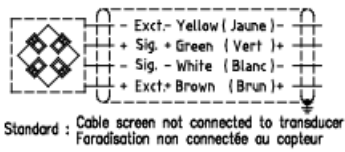
Dimensions in mm

OTHER

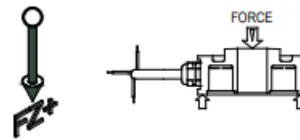
- Accessories



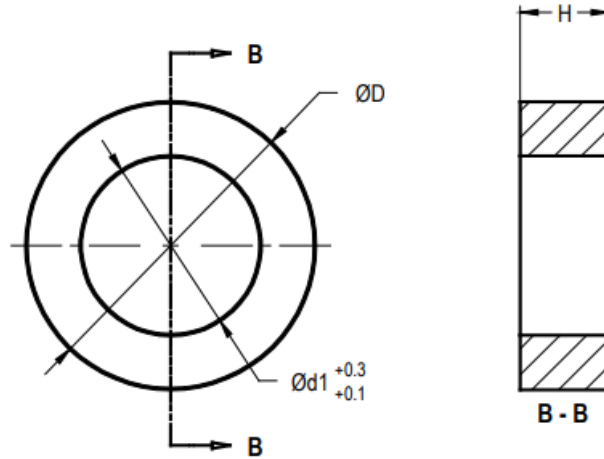
- Wiring



- Load direction



A5900 STANDARD DIMENSIONS



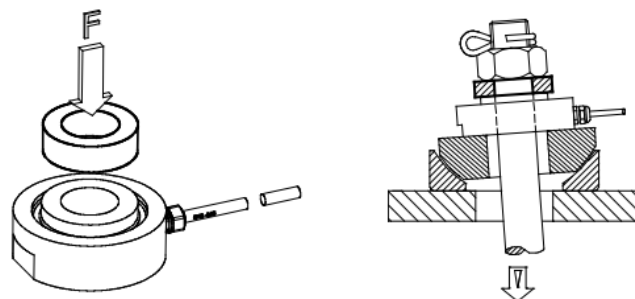
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Ref. Item*	Capacities		Ød1	ØD	H	Weight (kg)
	Force > 300 %**	Hoist > 500 %**				
A5900-A	3 - 30 kN	0.2 - 2 t	16	39	10	0.08
A5900-B	30 - 100 kN	3 - 7.5 t	30	49	15	0.14
A5900-C	100 - 150 (200) kN	10 - 15 t	50	89	20	0.68

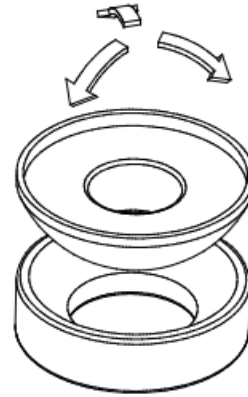
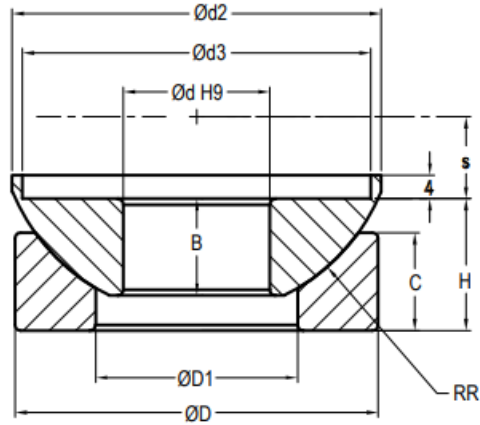
* Material: stainless steel
 **Breaking load (% full scale)

Dimensions in mm

AUTRES



R5900 STANDARD DIMENSIONS



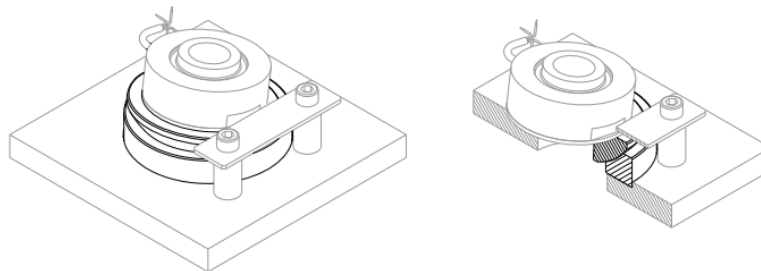
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Ref. Item*	Capacities		Ød	ØD	ØD1	H	Ød2	Ød3	RR	B	C	s	Weight (kg)
	Force > 300 %**	Hoist > 500 %**											
R5900-A	3 - 30 kN	0.2 - 2 t	25	62	34.5	22.5	63	59.5	34	16.5	16.7	14	0.43
R5900-B	30 - 100 kN	3 - 7.5 t	35	90	50.5	28	84	79.5	49	22	20.7	22	1.2
R5900-C	100 - 150 (200) kN	10 - 15 t	80	180	107.5	50	172	119.5	98.5	43.5	38	42.5	8

* Material: stainless steel
 **Breaking load (% full scale)

Dimensions in mm

OTHER



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