

5900

THROUGH HOLE (ANNULAR) LOAD CELLS

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



Model 5900 - 20 t



Features

- o Sturdy design
- o Material: stainless steel
- o Protection class: IP67
- o Easy to install
- o CE certified for hoisting applications
- o Complete range of "CE" certified electronics and load limiters
- o Cable length: 6 m (other lengths available on request)

Most popular options



Ex i



Application(s) SENSY's load cells 5900 are perfectly designed for the following applications:

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

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

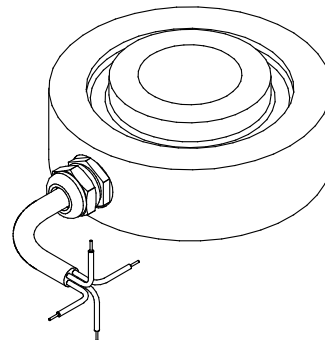
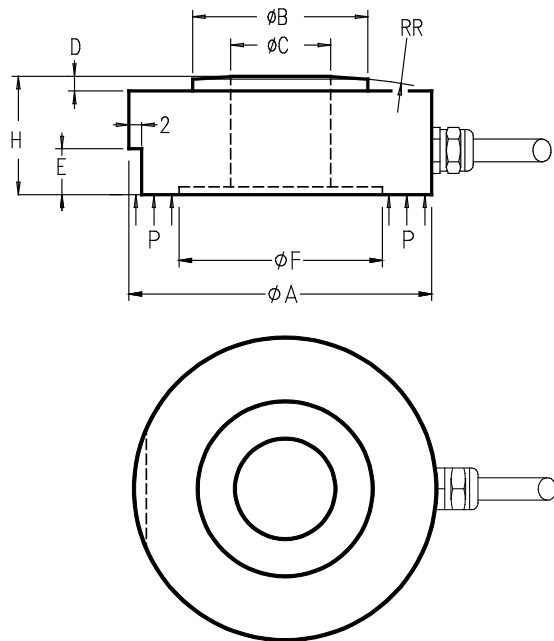
Specifications	0.25 %	SL - FORCE	SL - HOIST	
Combined error (non-linearity + hysteresis)	<± 0.25	0.25 - 1**	0.5 - 2**	% F.S.*
Repeatability error	<± 0.1	<± 0.25	<± 0.25	% F.S.*
Creep error over 30 min.	<± 0.1	<± 0.3	<± 0.3	% F.S.*
Zero shift after loading	<± 0.025	<± 0.5	<± 0.5	% F.S.*
Reference temperature	23	23	23	°C
Compensated temperature range	-10...+45	-10...+45	-10...+45	°C
Service temperature range	-25...+70	-25...+70	-25...+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	mVV
Nominal sensitivity	1.5	± 1.5	± 1	mVV
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	> 500	% F.S.*
Permissible dynamic loading	40	50	75	% F.S.*
Static lateral force limit	10	10	10	% F.S.*

* F.S.: Full Scale.

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

Specifications subject to change without notice.

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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 - 20 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 - 75 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

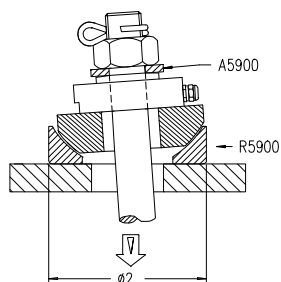
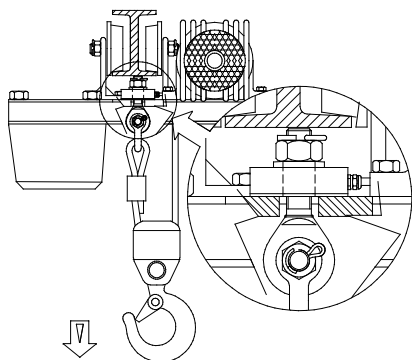
Capacities		ØC	ØB	ØA	H
Force > 300 %*	Hoist > 500 %*				
3 - 20 kN	0.2 - 2 t	ØX	ØX+14	±ØX+43	23...25
30 - 75 kN	3 - 7.5 t	ØX	ØX+20	±ØX+49	27...31
100 - 150 (200) kN	10 - 15 t	ØX	ØX+30	±ØX+69	35...40

* Breaking load (% full scale)

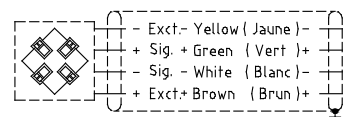
Other capacities and dimensions available on request

Dimensions in mm

Accessories

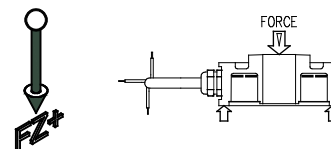


Wiring

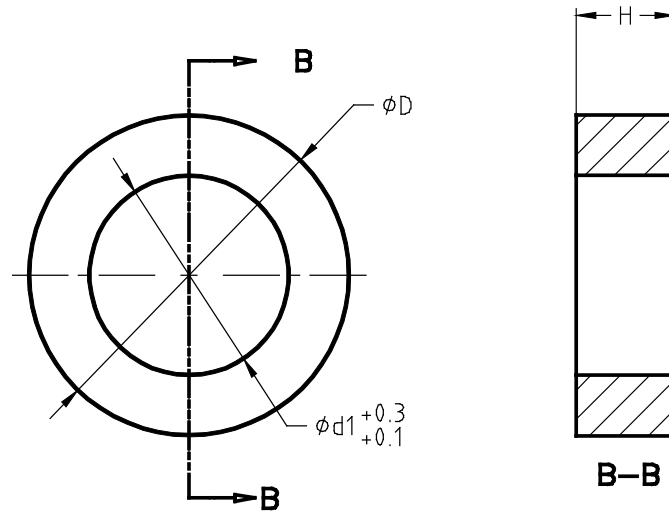


Standard : Cable screen not connected to transducer
Faradisation non connectée au capteur

Load direction



A5900 > STANDARD DIMENSIONS



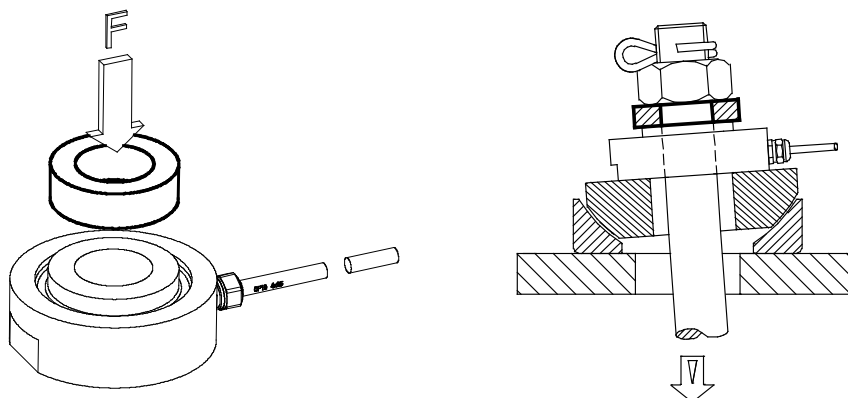
Ref. Item*	Capacities		$\phi d1$	ϕD	H	Weight (kg)
	Force > 300 %**	Hoist > 500 %**				
A5900-A	3 - 20 kN	0.2 - 2 t	16	39	10	0.08
A5900-B	30 - 75 kN	3 - 7.5 t	30	49	15	0.14
A5900-C	100 - 150 (200) kN	10 - 15 t	50	89	20	0.68

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

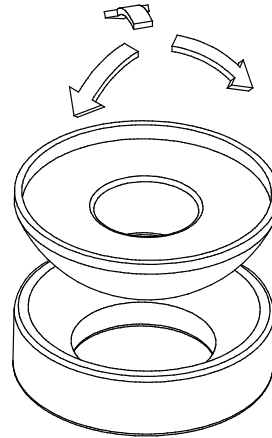
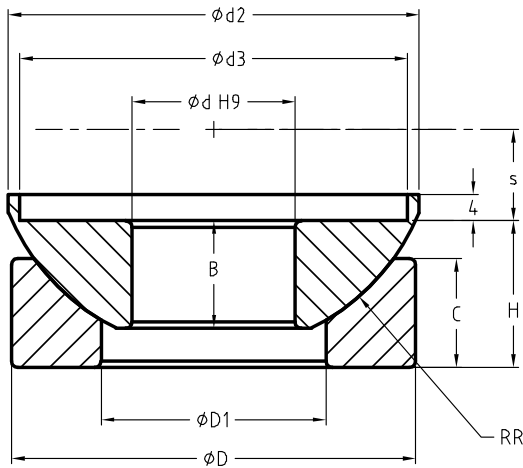
→ Other capacities and dimensions available on request

Dimensions in mm

Other views



→ R5900 > STANDARD DIMENSIONS



Ref. Item*	Capacities		ϕd	ϕD	$\phi D1$	H	$\phi d2$	$\phi d3$	RR	B	C	s	Weight (kg)
	Force > 300 %**	Hoist > 500 %**											
R5900-A	3 - 20 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 - 75 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)

→ Other capacities and dimensions available on request

Dimensions in mm

Other views

