

ABB MEASUREMENT & ANALYTICS | DATA SHEET

9QGPS5300

Standard load pins



Measurement made easy

Load pins with standard dimensions.

CE certified for hoisting applications

Sturdy design

Material: stainless steel

IP rating IP 65

Easy to install

Cable length: 6 m (19.7 ft)

Complete range of 'CE' certified electronics and load limiters

Available options (non exhaustive list)

- ATEX intrinsic safety
- High service temperature 180 °C (356 °F)
- IP rating IP 67(M)
- Amplified output (V or mA) and digital output signal (RS-232C, RS-485)
- SIL / PL ready
- Dual Wheatstone bridge

Applications

The standard load pins 9QGPS5300 are perfectly designed to the following applications:

- Hoisting devices and crane's security in combination with load limitation electronics.
(BRIDGE-BOY, CRANE-BOY, ...)

Capacities

0.5 – 1 – 2 – 3 – 5 – 10 – 20 – 30 – 50 – 75 – 100 – 125 t

Explosion protection (Option)

ATEX intrinsic safety:

- Ex II 1GD Ex ia IIC T6 or T4 Ga Ex ia IIIC T80°C Da

Specification

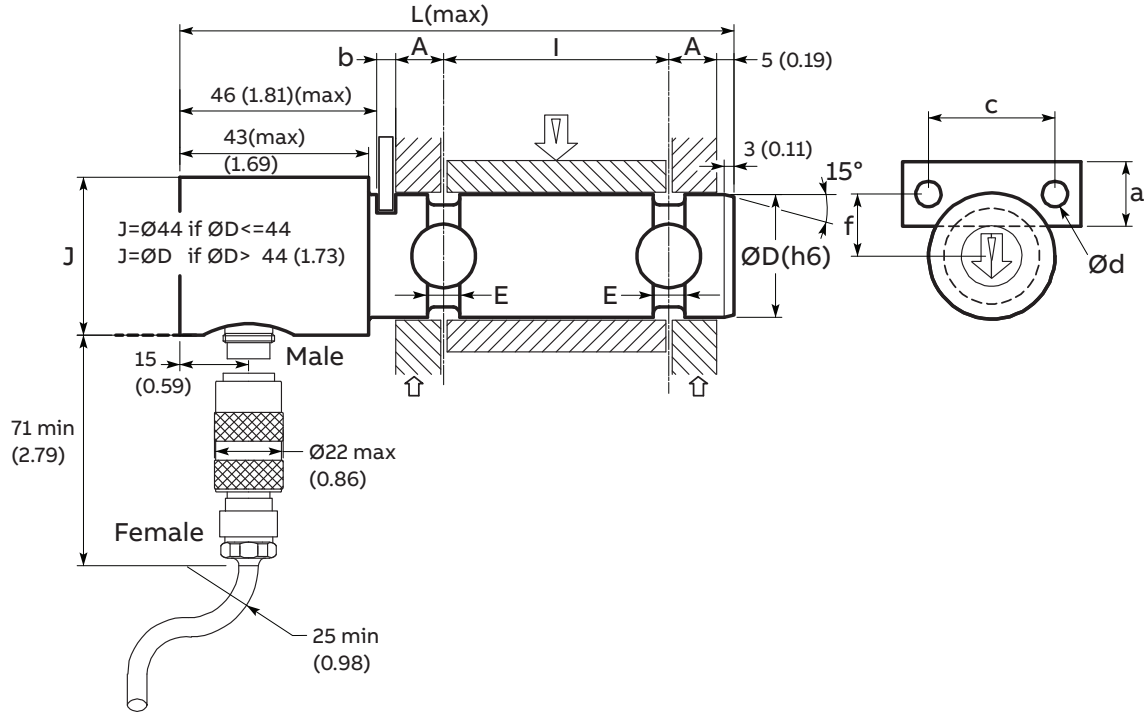
	SL-FORCE	SL-HOIST	SL-LIFT
Combined error (nonlinearity and hysteresis)	0.25 to 1 % F.S.	0.5 to 2 % F.S.	0.5 to 2 % F.S.
Repeatability error	< ± 0.25 % F.S.	< ± 0.25 % F.S.	< ± 0.25 % F.S.
Creep error over 30 min.	< ± 0.3 % F.S.	< ± 0.3 % F.S.	< ± 0.2 % F.S.
Zero shift after loading	< ± 0.5 % F.S.	< ± 0.5 % F.S.	< ± 0.5 % F.S.
Temperature coefficient of the sensitivity	< ± 0.2 % F.S./10 °C	< ± 0.2 % F.S./10 °C	< ± 0.2 % F.S./10 °C
Temperature coefficient of zero signal	< ± 0.2 % F.S./10 °C	< ± 0.2 % F.S./10 °C	< ± 0.2 % F.S./10 °C
Reference temperature	23 °C (73.4 °F)	23 °C (73.4 °F)	23 °C (73.4 °F)
Temperature data			
Compensated temperature range	–10 to 45 °C (14 to 113 °F)	–10 to 45 °C (14 to 113 °F)	–10 to 45 °C (14 to 113 °F)
Service temperature range	–25 to 70 °C (–13 to 158 °F)	–25 to 70 °C (–13 to 158 °F)	–25 to 70 °C (–13 to 158 °F)
Storage temperature range	–50 to 85 °C (–58 to 185 °F)	–50 to 85 °C (–58 to 185 °F)	–50 to 85 °C (–58 to 185 °F)
Electrical data			
Zero balance	± 0.02 mV/V	± 0.02 mV/V	± 0.02 mV/V
Input resistance	352 Ω ± 2 Ω	352 Ω ± 2 Ω	352 Ω ± 2 Ω
Output resistance	352 Ω ± 2 Ω	352 Ω ± 2 Ω	352 Ω ± 2 Ω
Insulation resistance (50 V)	> 5000 MΩ	> 5000 MΩ	> 5000 MΩ
Reference excitation voltage	10 V	10 V	10 V
Nominal range of excitation voltage	3 to 12 V	3 to 12 V	3 to 12 V
Nominal sensitivity	1.5 mV/V	1 mV/V	0.5 mV/V
Load limits			
Safe load limit	150 % F.S.	200 % F.S.	300 % F.S.
Breaking load	> 300 % F.S.	> 500 % F.S.	> 1000 % F.S.
Static lateral force limit	100 % F.S.	150 % F.S.	200 % F.S.
Permissible dynamic loading	50 % F.S.	75 % F.S.	100 % F.S.

Table 1: (F.S.: full scale)

Dimensions

Standard load pins 9QGPS5300

All specified dimensions are in mm (in.)



R00095

Figure 1: Dimensions

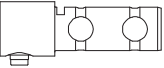
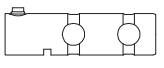
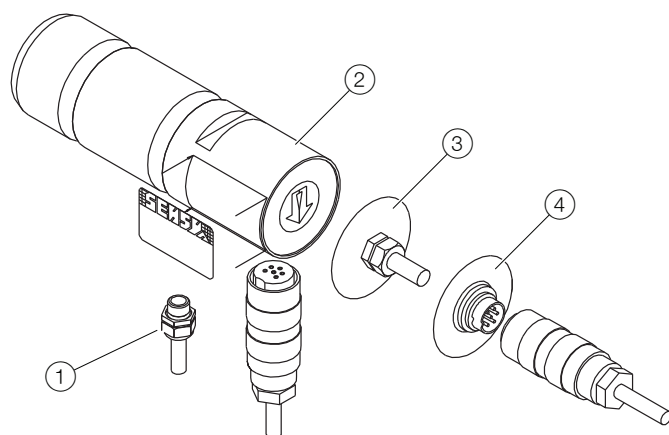
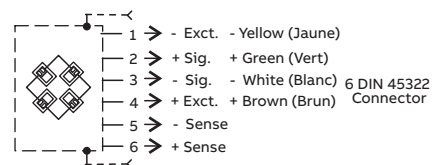
Standard design	Ref. Item	Capacities			ØD	A	E	I	a	b	c	Ød	f	I	Weight
		Force (t)	Hoist (t)	Lift (t)											
		> 300 %	> 500 %	> 1000 %											kg (lb)
	5300-A	0.8	0.5	0.25	25 (0.98)	13.5 (0.53)	8 (0.31)	31 (1.22)	25 (0.98)	6.5 (0.25)	50 (1.96)	11 (0.43)	20.5 (0.80)	115.5 (4.54)	0.8 (1.76)
	5300-B	1.6 to 3.3	1 to 2	0.5 to 1	25 (0.98)	13.5 (0.53)	8 (0.31)	31 (1.22)	25 (0.98)	6.5 (0.25)	50 (1.96)	11 (0.43)	20.5 (0.80)	115.5 (4.54)	0.8 (1.76)
	5300-C	5 to 8.3	3 to 5	1.5 to 2.5	35 (1.37)	18 (0.70)	10 (0.39)	47 (1.85)	25 (0.98)	6.5 (0.25)	50 (1.96)	11 (0.43)	24 (0.94)	140.5 (5.53)	1.3 (2.86)
	5300-D	16.6	10	5	50 (1.96)	27 (1.06)	14 (0.55)	66 (2.59)	30 (1.18)	8.5 (0.33)	70 (2.75)	13 (0.51)	33 (1.29)	179.5 (7.06)	2.6 (5.73)
	5300-E	30	20	10	65 (2.55)	32.5 (1.28)	18 (0.70)	90 (3.54)	30 (1.18)	8.5 (0.33)	70 (2.75)	13 (0.51)	38 (1.49)	214.5 (8.44)	5.3 (11.68)
	5300-F	50	30	15	75 (2.95)	40 (1.57)	18 (0.70)	100 (3.93)	40 (1.57)	10.5 (0.41)	100 (3.93)	17 (0.66)	47 (1.85)	241.5 (9.50)	7.5 (16.53)
	5300-G	75	50	–	85 (3.34)	49 (1.92)	20 (0.78)	117 (4.60)	40 (1.57)	10.5 (0.41)	100 (3.93)	17 (0.66)	50.5 (1.98)	276.5 (10.89)	11.2 (24.69)
	5300-H	100	75	–	100 (3.93)	72.5 (2.85)	35 (1.37)	155 (6.10)	40 (1.57)	10.5 (0.41)	100 (3.93)	17 (0.66)	56 (2.20)	361.5 (14.23)	22 (48.5)
	5300-I	125	100	–	120 (4.72)	72.5 (2.85)	35 (1.37)	155 (6.10)	50 (1.96)	12.5 (0.49)	140 (5.51)	21 (0.82)	65 (2.55)	363.5 (14.31)	31 (68.34)

Table 2: Other capacities and dimensions available on request

Options

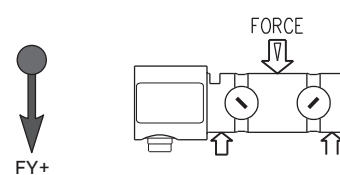


Wiring code



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

Load direction



① Radial cable gland (option 'G')

② Standard

③ Axial cable gland (option 'GA')

④ Axial connector (option 'A')

Figure 2: Other view



Notes

ABB Automation GmbH
Measurement & Analytics

Force Measurement
Oberhausener Str. 33
40472 Ratingen
Germany
Tel: +49 2102 12-2520
Fax: +49 2102 12-1414
Mail: ForceMeasurement@de.abb.com

abb.com/measurement

We reserve the right to make technical changes or modify the contents of this document without prior notice. With regard to purchase orders, the agreed particulars shall prevail.

ABB does not accept any responsibility whatsoever for potential errors or possible lack of information in this document.

We reserve all rights in this document and in the subject matter and illustrations contained therein. Any reproduction, disclosure to third parties or utilization of its contents – in whole or in parts – is forbidden without prior written consent of ABB.

© Copyright 2018 ABB.

All rights reserved.

3BDE701048