ABB MEASUREMENT & ANALYTICS | DATA SHEET

9QGPS5000B

Load measuring wedge sockets

Measurement made easy

Load measuring wedge sockets designed to measure the force applied on a cable.

CE certified for hoisting applications

Sturdy design

Load pin: 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 150 °C (302 °F)
- IP rating IP 67(M)
- Amplified output (V or mA)
- Dual Wheatstone bridge
- SIL / PL ready

Applications

The load pins 9QGPS5000B are perfectly designed to the following applications:

- SL-HOIST
  Hoisting devices and crane's security in combination with load limitation electronics.

Capacities

0.3 to 20 t
[for cables diameter from 9 to 32 mm (0.35 to 1.3 in.)]

Explosion protection (Option)

ATEX intrinsic safety:

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

Specification

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

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

Dimensions

Load measuring wedge sockets 9QGSP5000B

All specified dimensions are in mm (in.)

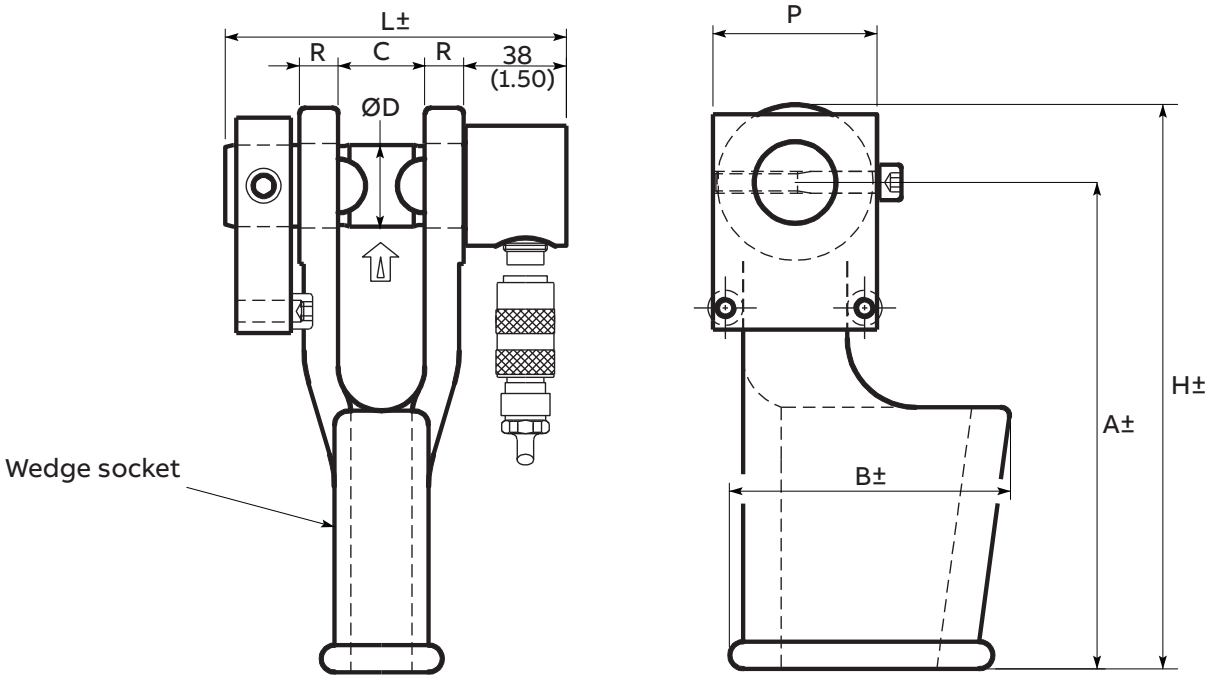
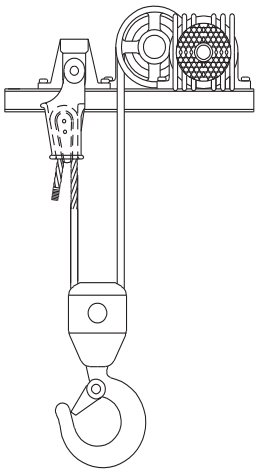
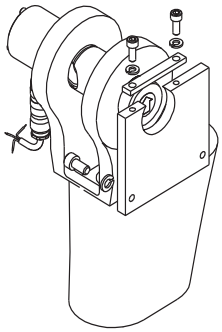


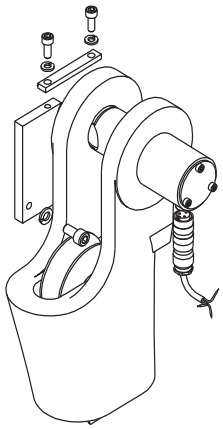
Figure 1: Dimensions wedge sockets 9QGSP5000B

Ref. Item	Capacities (t)	Size (Ø of cable)		A±	B±	C	ØD h9	H±	L±	R
		(mm)	(in.)							
5000B - ⅜ in.	0.3 to 2	9 to 10	⅜	145	65	20.6	20	167	108	11.2
				(5.71)	(2.55)	(0.81)	(0.79)	(6.57)	(4.25)	(0.44)
5000B - ½ in.	0.5 to 3	11 to 13	½	146	87.5	25.5	25	173	118	12.7
				(5.75)	(3.44)	(1.00)	(0.98)	(6.81)	(4.64)	(0.5)
5000B - ⅝ in.	0.75 to 5	14 to 16	⅝	178	103	31.8	30	207	125	14.2
				(7.01)	(4.05)	(1.25)	(1.18)	(8.15)	(4.92)	(0.56)
5000B - ¾ in.	1 to 6	18 to 19	¾	215	122	38.1	35	248	139	16.8
				(8.46)	(4.80)	(1.50)	(1.37)	(9.76)	(5.47)	(0.66)
5000B - ⅞ in.	1.5 to 8	20 to 22	⅞	240	139	44.5	41	283	143	19.1
				(9.45)	(5.47)	(1.75)	(1.61)	(11.14)	(5.63)	(0.75)
5000B - 1 in.	4 to 12.5	24 to 26	1	276	155	50.8	50	324	160	22.3
				(10.87)	(6.10)	(2.00)	(1.96)	(12.76)	(6.29)	(0.88)
5000B - 1 ⅛ in.	5 to 16	28	1 ⅛	313	171	57.2	57	365	172	25.4
				(12.32)	(6.73	(2.25)	(2.24)	(14.37)	(6.77)	(1.00)
5000B - 1 ¼ in.	8 to 20	30 to 32	1 ¼	351	187	63.5	64	406	185	28.7
				(13.82)	(7.36)	(2.50)	(2.52)	(15.98)	(7.28)	(1.13)
5000B - 1 ⅜ in.	8 to 20	34 to 36	1 ⅜	400	–	69	64	474	190	28
				(15.75)		(2.71)	(2.52)	(18.66)	(7.48)	(1.10)
5000B - 1 ½ in.	10 to 20	35 to 39	1 ½	450	–	76	70	530	200	30
				(17.72)		(2.99)	(2.75)	(20.87)	(7.87)	(1.18)

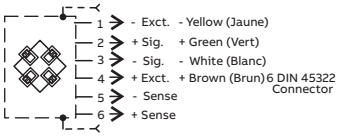
Table 2: Other capacities and dimensions available on request







Wiring code



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

Load direction

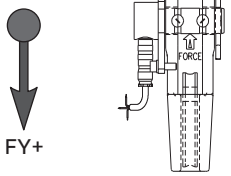


Figure 2: Other views

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

3BDE701047

DS/9QGP5000B-EN Rev. A 05.2018