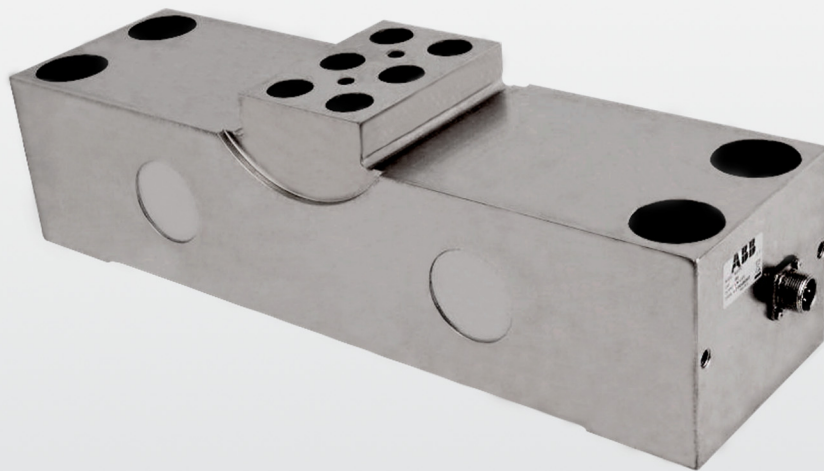


ABB MEASUREMENT & ANALYTICS | DATA SHEET

9QGPD

Compression load cell



Measurement made easy

Compression load cells combining low and compact design

Protected surface

IP rating IP 65

Direct joint with the connecting structure

Designed for harsh environments

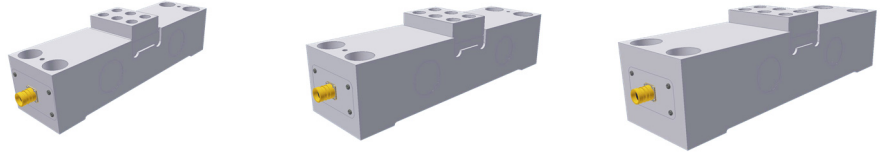
Suitable for construction of lean service scales

Long term stability

Available options (non exhaustive list)

- High service temperature (up to -40 and 180 °C [-40 and 356 °F])
- High compensated temperature (up to 180 °C [356 °F])
- IP rating IP 68

Specification



Mechanical data			
Nominal capacity	50 t	100 t	150 t
Typical (permitted) overload	200 % F.S.	210 % F.S.	200 % F.S.
Break load	400 % F.S.	350 % F.S.	320 % F.S.
Max. transversal load	100 % F.S.	85 % F.S.	80 % F.S.
Measuring accuracy			
Combined error (non-linearity + hysteresis)	< ±0.1 % F.S.	< ±0.1 % F.S.	< ±0.1 % F.S.
Temperature drift on zero signal	< ±0.035 % F.S./10 °C.	< ±0.035 % F.S./10 °C	< ±0.035 % F.S./10 °C
Temperature drift on span	< ±0.05 % F.S./10 °C.	< ±0.05 % F.S./10 °C	< ±0.05 % F.S./10 °C
Creep error over 30 min.	< ±0.06 % F.S.	< ±0.06 % F.S.	< ±0.06 % F.S.
Temperature data			
Nominal temperature range	-10 to 100 °C (14 to 212 °F)	-10 to 100 °C (14 to 212 °F)	-10 to 100 °C (14 to 212 °F)
Service temperature range (optional)	-40 to 180 °C (-40 to 356 °F)	-40 to 180 °C (-40 to 356 °F)	-40 to 180 °C (-40 to 356 °F)
Storage temperature range	-10 to 85 °C (14 to 185 °F)	-10 to 85 °C (14 to 185 °F)	-10 to 85 °C (14 to 185 °F)
Electrical Data			
Nominal output signal	1.08 mV/V	1.38 mV/V	1.57 mV/V
Tolerance sensitivity	< ±0.3 mV/V	< ±0.3 mV/V	< ±0.3 mV/V
Max. excitation voltage range	5 to 15 V DC	5 to 15 V DC	5 to 15 V DC
Input resistance	700 Ω ±5 Ω	700 Ω ±5 Ω	700 Ω ±5 Ω
Output resistance	700 Ω ±5 Ω	700 Ω ±5 Ω	700 Ω ±5 Ω
Insulation resistance	> 5 × 10 ⁹ Ω	> 5 × 10 ⁹ Ω	> 5 × 10 ⁹ Ω

F.S.: Full scale

Applications

The load cells 9QGPD are perfectly designed to the following applications:

- Ladle turret
- Ladle transfer car
- Scrap bucket and tundish scales
- Silo and hopper scales

Electrical connections

Description	PIN	Color code
+ U _s positive excitation	1	Brown
- U _s negative excitation	3	Yellow
+ U _D positive output	2	Green
- U _D negative output	4	White
+ U _F positive sense signal	1	Pink
- U _F negative sense signal	3	Grey

Capacities

50 - 100 - 150 t

Dimensions

Load cell model 9QGPD

Compression load cells

All specified dimensions are in mm (inch)

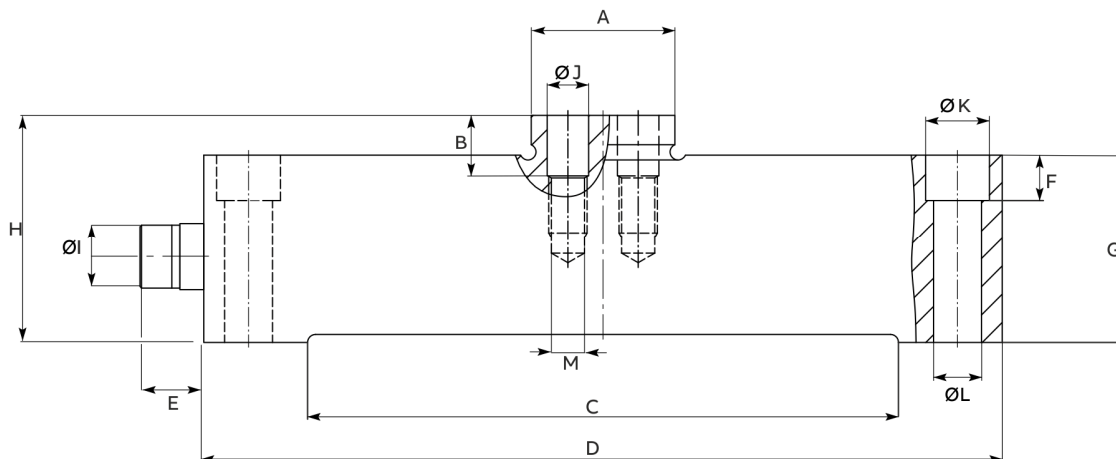
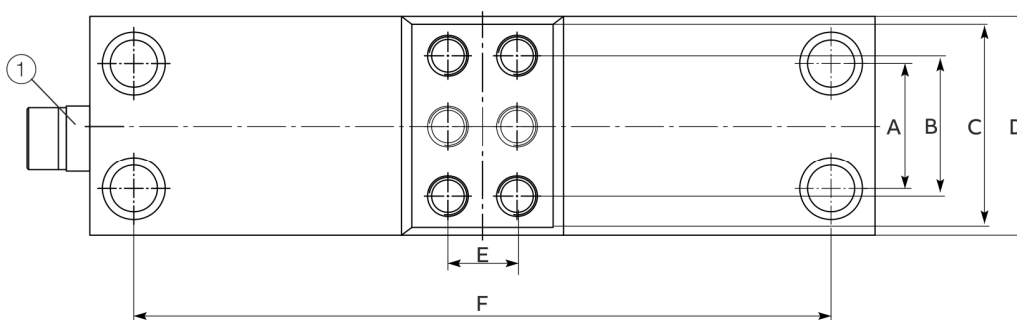


Fig. 1 Dimensions sideview

Nominal capacities (t)	A	B	C	D	E	F	G	H	ØI	ØJ	ØK	ØL	M	Weight kg (lb)
50 t	80 (3.15)	32 (1.26)	340 (13.4)	450 (17.7)	53 (2.09)	26 (1.02)	105 ±0.5 (4.13±0.02)	130 ±0.2 (5.12±0.01)	40 (1.57)	22 (0.87)	40 (1.57)	26 (1.02)	M20	40 (88)
100 t	90 ±0.1 3.54	38 (1.5)	370 (14.6)	500 (19.7)	53 (2.09)	28.5 (1.12)	118 ±0.5 (4.65±0.02)	134 ±0.2 (5.28±0.01)	40 (1.57)	24 (0.95)	40 (1.57)	30 (1.18)	M24 × 36	55 (121)
150 t	90 ±0.1 3.54	38 (1.5)	410 (16.1)	560 (22)	53 (2.09)	32 (1.26)	133 ±0.5 (5.24±0.02)	158 ±0.2 (6.22±0.01)	40 (1.57)	24 (0.95)	48 (1.89)	33 (1.3)	M24 × 36	85 (187)



① Connector, 6-pole, with 10 m (1,64 ft) cable

Abbildung 2: Dimensions top view

Nominal capacities (t)	A	B	C	D	E	F
50 t	75 ±0.5 (0.3 ±0.01)	—	—	—	40 ±0.6 (1.57 ±0.02)	398 ±0.6 (15.7 ±0.02)
100 t	80 ±0.6 (3.15 ±0.02)	90 ±0.6 (3.54±0.02)	130 ^{-0.1/-0.3} (5.12 ^{-0.0/-0.01})	140 (5.51)	44 ±0.6 (1.73 ±0.02)	444 ±0.6 (17.5 ±0.02)
150 t	94 (3.7)	102 (4.02)	150 (5.91)	160 (6.3)	44 (1.73)	500 (19.7)

Notes

Notes

ABB Automation GmbH
Measurement & Analytics

Force Measurement
Oberhausener Str. 33
40472 Ratingen
Deutschland
Tel: +49 2102 12-2520
Fax: +49 2102 12-1414
Email: forcemeasurement@de.abb.com

abb.com/weighing

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.