

0782 GD

Analog Load Cell



METTLER TOLEDO

Benefits of 0782 GD

Analog Load Cells for Weighbridges

0782/GD analog load cells are approved for use in vehicle weighing applications, including extremely hazardous locations.

Stainless-Steel Enclosure

Protect against harsh outdoor conditions often present at truck weighing operations.

Global Approvals

Standard global approvals offered for easy procurement and scale-up.

Safe for Hazardous Areas

Trusted in hazardous areas: ATEX Zone 1/2 and 21/22, FM Class I, II, III, and Div 1, IECEx Zone 1/2 and 2/22.

Multiple Capacity Options

Available in capacities of 20 t, 30 t, 50 t, 100 t, 200 t, and 300 t.

Technical Specifications

Material	Stainless steel
Metrology	OIML C3, NTEP IIIIL 10,000
Protection Rating	IP68
Lightning Protection	N/A
Model	0782
Load Cell Type	Column compression



Benefits of 0782 GD

Safe Vehicle Weighing

0782 load cell is a great solution for truck, railroad, and other heavy-capacity weighbridge applications. Also available as replacements for cells in an old weighbridge, 0782 can enhance weighing accuracy and performance.

Rocker-Pin Design

Avoid load cell rotation with the smart anti-rotation design of the load cell.

Simple for Retrofit Applications

The familiar design makes retrofitting existing installations simple.

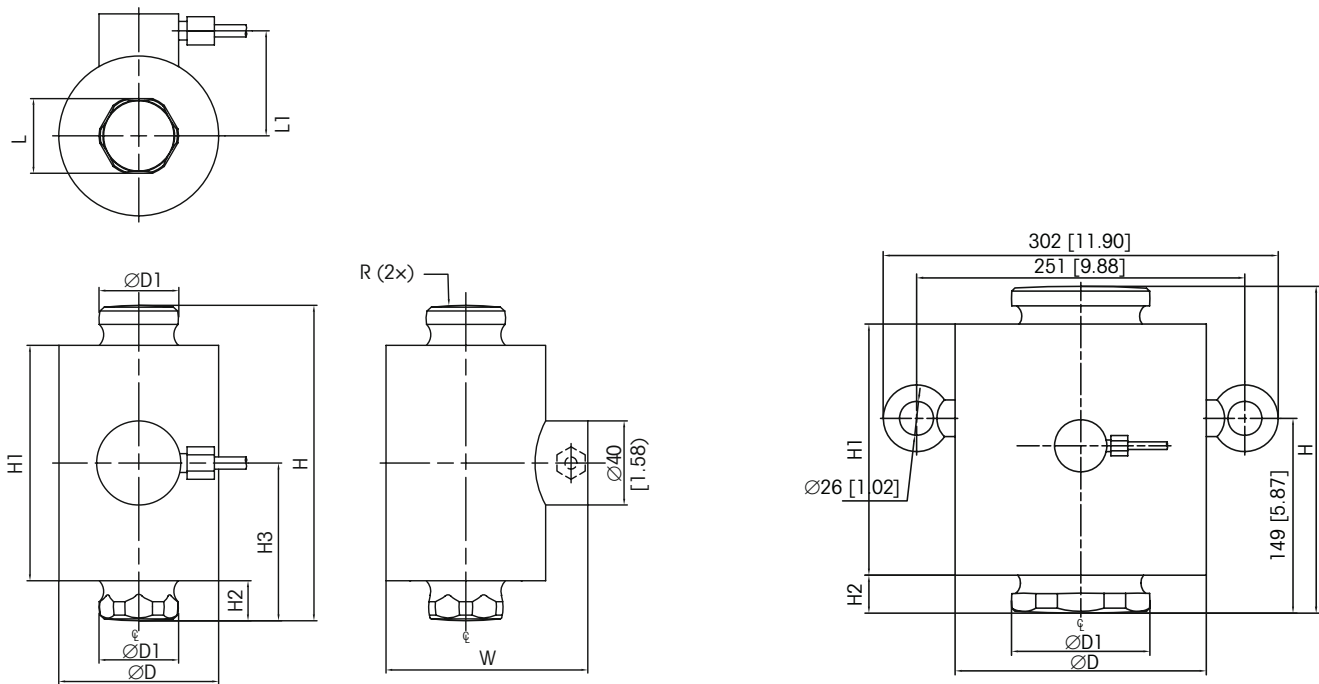
Your Trusted Partner

METTLER TOLEDO is a trusted supplier of load cell technology for truck weighing applications worldwide.

Global Service Expertise

When truck scales are a key part of your operation, you need a service partner you can trust to keep your scale up and running.

0782 GD Load Cell Dimensions: mm (in)



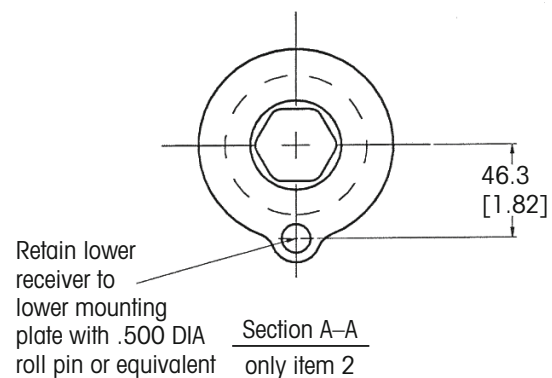
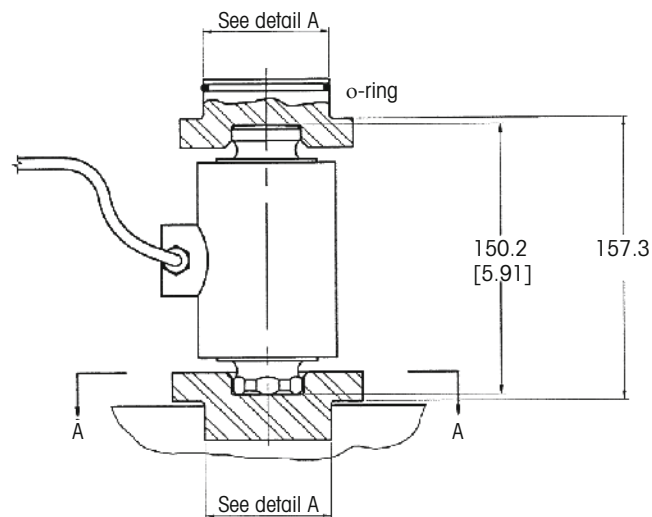
Capacity	Dimensions and Locations									
	D	D1	H	H1	H2	H3	L	L1	R	W
20 – 30 t (33 – 66 klb)	76 (2.99)	37.8 (1.49)	150 (5.91)	112 (4.41)	19 (0.75)	75 (2.95)	33.5 (1.40)	50 (1.97)	160 (6.30)	96 (3.78)
50 t (110 klb)	76 (2.99)	37.8 (1.49)	150 (5.91)	112 (4.41)	19 (0.75)	75 (2.95)	33.5 (1.40)	50 (1.97)	305 (12.0)	96 (3.78)
100 t (220 klb)	102 (4.02)	53.8 (2.12)	150 (5.91)	112 (4.41)	19 (0.75)	75 (2.95)	50.6 (1.99)	64 (2.52)	305 (12.0)	123 (4.84)
200 t (440 klb)	158 (6.22)	80 (3.15)	195 (7.68)	145 (5.71)	25 (0.98)	93 (3.66)	75.25 (2.96)	93 (3.66)	400 (5.75)	180 (7.09)
300 t (660 klb)	192 (7.56)	106 (4.17)	250 (9.84)	192 (7.56)	29 (1.14)	128 (5.04)	99.20 (3.91)	110 (4.33)	900 (35.4)	213 (8.39)



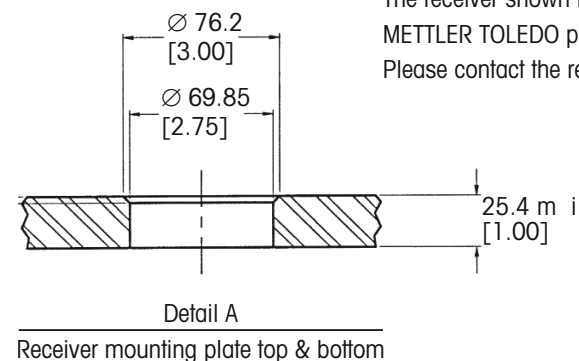
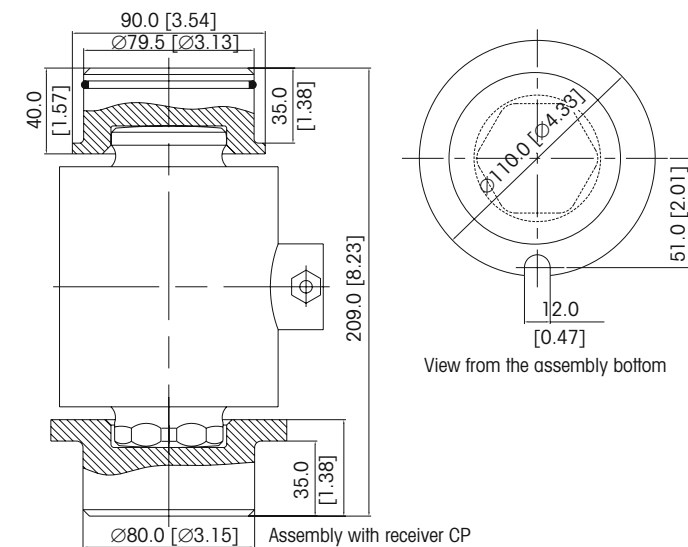
0782 GD



0782 Load Cell Receivers mm (in) 20 – 50 †



0782 Load Cell Receivers mm (in) 100 †



The receiver shown here are an example out of few. METTLER TOLEDO provides more receiver. Please contact the responsible sales in charge.



0782 GD



0782 Load Cell Order Information

Description			Item No.
Load cell, model no. 0782	20 † (44 klb)	13 m (42.5 ft) cable C3/IIILM10	71201708
	30 † (66 klb)	13 m (42.5 ft) cable C3/IIILM10	71201709
	50 † (110 klb)	13 m (42.5 ft) cable C3/IIILM10	71201710
	100 † (220 klb)	13 m (42.5 ft) cable C3/IIILM10	71201711
	200 † (441 klb)	20 m (66 ft) cable	71210093
	300 † (661 klb)	30 m (98 ft) cable	71210169

0782 Load Cell Cable Colors

Color	Function
Green	+ Excitation
Black	– Excitation
White	+ Signal
Red	– Signal
Yellow	+ Sense
Blue	– Sense
Yellow (long)	Shield

Full Connectivity

METTLER TOLEDO offers various data communication interfaces that enable our sensors and instruments to communicate with your PLC, MES, or ERP systems.



Global Approvals

The 0782 is provided with all listed approvals — no need to think about options and additional charges. Simplify the conduct of global business, order processing, and service-part stocking.



0782 GD



Parameter		Unit of Measure	Specification					
Rated Capacity (R.C.)		† (klb, nominal)	20 (44)	30 (66)	50 (110)	100 (220)	200 (441)	300 (661)
Sensitivity at R.C.		mV/V @ R.C.	2 ± 0.1%					
Zero load output		%R.C.	≤ 1					
Combined error*		%R.C.	≤ 0.018				≤ 0.05	≤ 0.06
Repeatability error		%A.L.**	≤ 0.01				≤ 0.02	
Creep. 30 minute		%A.L.	≤ 0.0167				≤ 0.03	≤ 0.04
Min. dead load output return (DR), 30 min		%A.L.	≤ 0.0167				≤ 0.03	≤ 0.04
Temperature Effect on Minimum Dead Load Output	Min. dead load output	%R.C./°C (./°F)	≤ 0.002 (0.001)					
	Sensitivity*	%A.L./°C (./°F)	≤ 0.0009 (0.0005)				≤ 0.002 (0.001)	
Temperature Range	Compensated	°C (°F)	−10 to +40 (+14 to +104)					
	Operating	°C (°F)	−40 ~ +65 (−40 ~ +150)					
	Safe Storage	°C (°F)	−40 to +80 (−40 to +176)					
OIML/European Approval***	OIML Cert. No.		R60/2000-NL-01.04				—	
	European Cert. No.		NMI TC5844					
	Class		C3					
	n _{max}		3000					
	Y		6666					
	PLC		0.7					
	Humidity symbol		CH					
	Min. dead load	kg (lb)	0 (0)					
	Z		3000					

* Error due to the combined effect of non-linearity and hysteresis. Typical values only. The sum of errors due to combined error and temperature effect on sensitivity comply with the requirements of OIML R60 and NIST HB44.

** A.L = Applied Load

*** See certificate for complete information

0782 GD



Parameter		Unit of Measure	Specification					
Rated Capacity (R.C.)		† (klb, nominal)	20 (44)	30 (66)	50 (110)	100 (220)	200 (441)	300 (661)
NTEP Approval*	Number		01-004					
	Class		III L M					
	n _{max} (HB44)		10,000					
	V _{min} (HB44)	kg (lb)	1.4 (3.0)	2.1 (4.5)	3.5 (7.5)	7.0 (15.0)		
	Min. Dead Load	kg (lb)	50 (100)					
ATEX Approval*	Number, cat. 2		KEMA 02ATEX1249 X					
	Rating		II 2 G Ex ib IIC T4...T6					
	Entity parameters		II 2 D Ex ibD 21 IP68 T60 °C					
	Number, cat. 3		Ui = 25V, li = 600mA, Pi = 0.57–1.25W, Ci = 2.6–6nF, Li = 13–30µH					
	Rating		DEKRA 19ATEX0039 X					
	Entity parameters		II 3 G Ex ic IIC T6...T4 Gc ; II 3 G Ex nA IIC T6 Gc ; II 3 G Ex ec IIC T6 Gc ; II 3 D Ex tc IIIC T60°C Dc					
IECEx Approval*	Number		Ui = 25V, li = 600mA, Pi = 0.57–1.25W, Ci = 2.6–6nF, Li = 13–30µH					
	Rating		3013511/3028342C					
	Entity parameters		IS / I, II, III / 1 / ABCDEFG/T4 Ta = –40°C to +50°C					
Factory mutual approval*	Number, USA/Canada		NI / I,II,III / 2 / ABCDFG / T4 Ta = –40°C to +50°C					
	Rating, USA		IS / I,II,III / 1 / ABCDEFG / T4 Ta = –40°C to +50°C ; NI / I / 2 / ABDC / T4 Ta = .40C to +50°C DIP/II,III/2/FG					
			Class I, Division 1, Groups A, B, C and D; Class II, Groups E, F and G; Class III					
	Rating, Canada	cFM	V _{max} = 20V, I _{max} = 600mA, Pi = 1.25W					
		CSA	NI/I/2/ABCD/T4 ; DIP/II,III/2/FG					
	Entity parameters		V _{max} = 20V, I _{max} = 600mA, Pi = 1.25W					
			Ci = 4nF, Li = 17.7µH					Ci = 6nF, Li = 26.5µH
	System drawing No		142730					
Excitation voltage	Recommended	V AC/DC	5 ~ 15					
	Max.		20					

* See certificate for complete information

0782 GD



Parameter		Unit of Measure	Specification					
Rated Capacity (R.C.)		† (klb, nominal)	20 (44)	30 (66)	50 (110)	100 (220)	200 (441)	300 (661)
Terminal resistance	Excitation	Ω	1,150 ± 25					
	Output		1,000 ± 3					
Insulation resistance @50VDC		MΩ	> 5,000					
Breakdown voltage		V AC	> 500					
Material	Spring Element		Stainless steel					
	Enclosure		Stainless steel					
	Cable Entry Fittings		Stainless steel					
	Cable		PVC					
Protection	Type		Welded					
	IP Rating		IP68 & IP69k					
	NEMA rating		NEMA 6/6P					
Load Limit	Safe	%R.C.	125					
	Ultimate	%R.C.	300					
Safe Dynamic Load		%R.C.	70					
Fatigue Life		cycles @R.C.	> 1,000,000					
Direction of Loading			Compression					
Restoring force**		%A.L./mm (./in)	0.8 (19)		2 (52)		1.6 (40)	2.5 (63)
Max. horizontal travel***		± mm (in)	4 (0.16)			5 (0.20)	6 (0.24)	
Deflection @ R.C., nominal		mm (in)	0.25 (0.010)	0.27 (0.011)	0.27 (0.011)	0.38 (0.015)	0.54 (0.021)	0.57 (0.023)
Weight, nominal		kg (lb)	2.8 (6.2)	3 (6.6)	3.3 (7.3)	4.5 (9.9)	12.5 (27.6)	21.7 (48)
Cable	Length	m (ft)	13 (42.5)				20 (66)	30 (98)
	Diameter	mm (in)	5.8 (0.23)					
Barometric pressure effect on zero load output		kg/kPa (lb/in.Hg)	3 (6.6)	4.5 (9.9)	7.5 (16.5)	15 (33)	30 (66)	45 (99)

*Testing by Lightning Technologies (NTS, Inc.) with Lightning Protection Kit. Patents pending, POWERCELL® is a trademark of METTLER TOLEDO.

** % of applied load (A.L.) per mm (in) displacement of the top button relative to the bottom button

*** Maximum horizontal displacement of the top button relative to the bottom button

Weighbridge Service Solutions

Tailored to Fit Your Needs

METTLER TOLEDO Service delivers resources to enhance your efficiency, performance, and productivity. Explore our service offerings below or reach out to your local METTLER TOLEDO representative to find the best fit for you.



Warranty Coverage

All warranties are not created equal. Coverage can vary greatly from one supplier to the next. It is critical to ask about parts, labor, travel, calibration, environmental protection, stipulations, and more when exploring various warranty offerings.



Performance Upgrades

Load cells, indicators, peripherals, and software upgrades enhance the accuracy, reliability, and functionality of your truck scale beyond its current capabilities. With POWERCELL® upgrade and conversion kits, you can protect profitability and extend the life of your asset, all at a fraction of the cost of a new scale.



Professional Installation

Establish full confidence in your equipment from day one. Our expert technicians execute installation and testing, full system setup and calibration, setup of standard operating parameters, and user and maintenance familiarization. Simplify compliance with site, regulatory, and quality requirements.



Asset Maintenance

Regular maintenance enables reliable performance, compliance, and budget control. With insight into asset performance, you can minimize unplanned downtime and maintenance costs. Extend asset life with calibration, powerwashing, replacement of worn parts, and lubricating of the load cells and receivers.



Care Packages

Care Packages keep your operation running like clockwork. Crafted to cater to your specific needs, our packages provide preventive maintenance, replacement parts, and flexible support options.



► www.mt.com/veh-service

Subject to technical changes
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Document No. 30632068 A
Industrial Division – Marcom
METTLER TOLEDO Group