

Globally Approved for Accuracy and Safety



Vehicle Weighing

Use the 0782 load cell in new truck, railroad track and other heavy capacity weighbridge applications or as a replacement for cells in an old weighbridge to enhance its performance. The 0782 is ideally suited to this application.



Tank Weighing

The capacity range from 20t to 300t allows the weighing of big tanks and silos with ease. The stainless steel design (20t–200t), hermetic sealing and IP68 protection provides the best reliability in tank weighing applications.



GAGEMOUNT Module

The optional METTLER TOLEDO GAGEMOUNT (20t–100t) weigh module adds suspension, checking and anti-tipping to your 0782 load cell and includes top and bottom mounting plates to simplify installation. Available in nickel plated mild steel or stainless steel.



0782 High Capacity Load Cell

Every 0782 high capacity load cell features:

- OIML C3 and NTEP IIILM 10.000d approvals (20t–100t)
- ATEX Zone1/2 and 21/22 approvals
- FM Class I,II,III Div 1 approvals
- Stainless steel (20t–200t)
- Hermetically sealed design
- IP68 protection class

The 0782 is approved for use in various applications in Europe, Asia, America and almost everywhere else in the world. If an approval is required, the 0782 probably already complies.

The 0782 load cell is even approved for hazardous areas.

METTLER TOLEDO

0782 Load Cell Specifications

Parameter		unit of measure	Specification							
Model No.			0782							
Rated Capacity (R.C.)		† (klb, nominal)	20 (44)	30 (66)	50 (110)	100 (220)	200 (441)	300 (661)		
Rated Output		mV/V @R.C.	2 ± 0.1%							
Zero load Output		%R.C.	≤ 1							
Combined Error ^{1) 2)}		%R.C.	≤ 0.018				≤ 0.05	≤ 0.06		
Repeatability Error		%A.L. ³⁾	≤ 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	Min. Dead load Output	%R.C./°C (./°F)	≤ 0.002 (0.001)							
	Sensitivity ²⁾	%A.L./°C (./°F)	≤ 0.0009 (0.0005)				≤ 0.002 (0.001)			
Temperature Range	Compensated		-10 ~ +40 (+14 ~ +104)							
	Operating	°C (°F)	-40 ~ +65 (-40 ~ +150)							
	Safe Storage		-40 ~ +80 (-40 ~ +176)							
OIML / European Approval ⁴⁾	OIML Cert. No.		R60/2000-NL-01.04				-			
	European Cert. No.		NMI TC5844							
	Class		C3							
	nmax		3000							
	Y		6666							
	PLC		0.7							
	Humidity Symbol		none							
	Min. dead load	kg (lb)	0 (0)							
NTEP Approval ⁴⁾	Z		3000				-			
	Number		01-004							
	Class		III L M							
	nmax		10000							
	Vmin	kg (lb)	1.4 (3.0)	2.1 (4.5)	3.5 (7.5)	7.0 (15.0)				
ATEX Approval ⁴⁾	Min. dead load	kg (lb)	50 (100)				-			
	Number, cat. 2		KEMA 02ATEX1249 X							
	Rating		II 2 G Ex ib IIC T4 ... T6 II 2 D Ex ibD 21 IP68 T60°C							
	Entity Parameters		Ui=25V, Ii=600mA, Pi=0.57 - 1.25W, Ci=2.6 - 6nF, Li=10.25 - 30µH							
	Number, cat. 3		KEMA 06ATEX0122							
	Rating		II 3 G Ex nL IIC T6 II 3 G Ex nA II T6 II 3 D Ex tD A22 IP 68 T60°C							
Factory Mutual Approval ⁴⁾	Entity Parameters		Ui = 25V, Ci 2.6 - 6nF, Li 10.25 - 30 µH							
	Number, USA		3013511							
	Rating		IS/I, II, III/1/ABCDEFGH/T4 NI/I, II, III/2/ABCDH/T4							
	Entity Parameters		Vmax=20V, Imax=600mA, Pi=1.25W Ci=4nF, Li=17.7µH				Ci=6nF, Li=26.5µH			
	System Drawing No, USA		142730							
Excitation Voltage	Recommended	V AC/DC	5 ~ 15							
	Max.		20							
Terminal Resistance	Excitation	Ω	1160 ± 10				1160 ± 15			
	Output		1000 ± 3							
Insulation Resistance @50VDC		MΩ	> 5000							
Breakdown Voltage		V AC	>500							
Material	Spring Element		stainless steel					4340		
	Enclosure		stainless steel							
	Cable entry fitting		stainless steel							
Protection	Cable		PVC							
	Type		welded							
	IP Rating		IP 68							
	NEMA Rating		NEMA 6/6P							
Load Limit	Safe	%R.C.	125							
	Ultimate		300							
Safe Dynamic Load		%R.C.	70							
Fatigue Life		cycles @R.C.	>1,000,000							
Direction of Loading			compression							
Restoring Force ⁵⁾		%A.L./mm (./in) ³⁾	0.8 (19)		2 (52)		1.6 (40)	2.5 (63)		
Max Horizontal Travel ⁶⁾		± mm (in)	4 (0.16)		5 (0.20)		6 (0.24)			
Deflection @ R.C., nominal		mm (in)	0.25 (0.010)				0.32 (0.013)	0.42 (0.017)		
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)		

¹⁾ Error due to the combined effect of non-linearity and hysteresis

²⁾ 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.

³⁾ A.L. = Applied Load

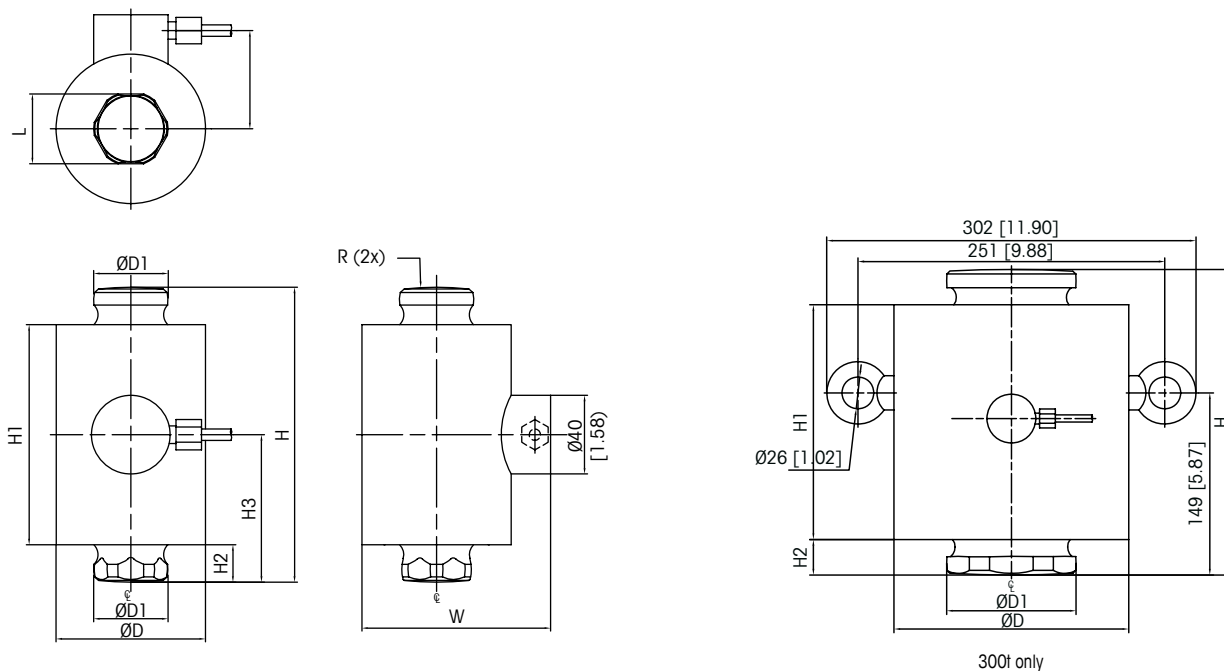
⁴⁾ See certificate for complete information.

⁵⁾ % of Applied Load (A.L.) per mm (in) displacement of the top button relative to the bottom button.

⁶⁾ Maximum horizontal displacement of the top button relative to the bottom button.

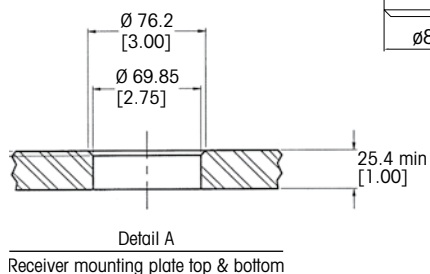
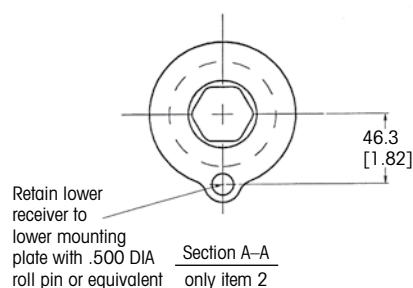
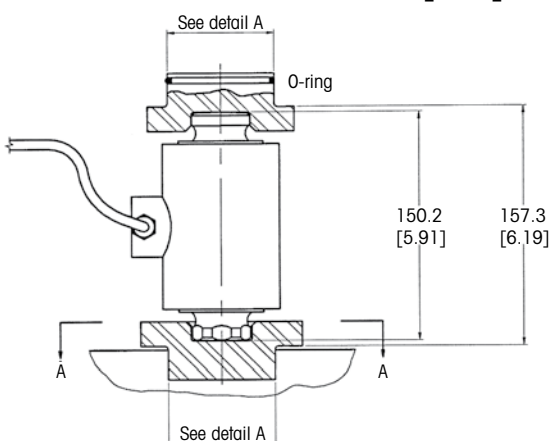
⁷⁾ In process, consult factory.

0782 Load Cell Dimensional Drawings mm [inch]

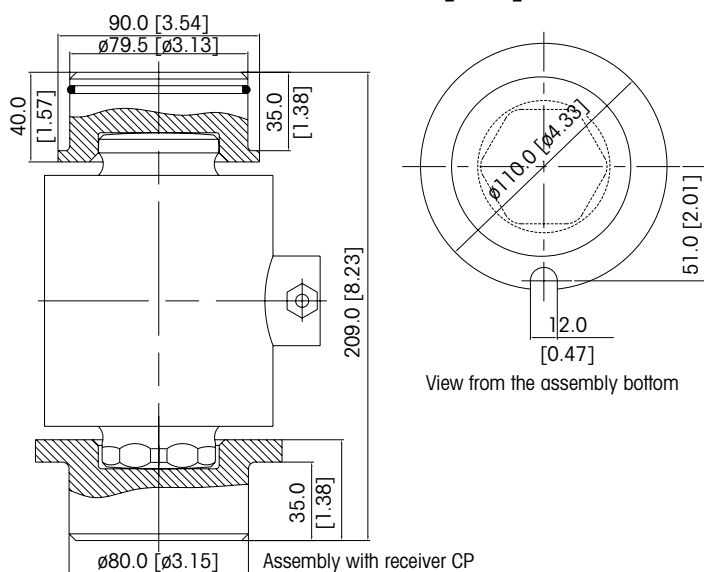


Capacity	Dimensions and Locations									
	D	D1	H	H1	H2	H3	L	L1	R	W
20–30t [33–66 klb]	76 [2.99]	37.8 [1.49]	150 [5.91]	112 [4.41]	19 [0.75]	75 [2.95]	33.5 [1.40]	50 [1.97]	160 [6.30]	96 [3.78]
50t [110 klb]	76 [2.99]	37.8 [1.49]	150 [5.91]	112 [4.41]	19 [0.75]	75 [2.95]	35.5 [1.40]	50 [1.97]	305 [12.0]	96 [3.78]
100t [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]
200t [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 [15.75]	180 [7.09]
300t [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 Load Cell Receivers mm [inch] 20t–50t



0782 Load Cell Receivers mm [inch] 100t



0782 Load Cell Order Information

Description	Item No.
Load Cell 0782 – 20t	71201708
Load Cell 0782 – 30t	71201709
Load Cell 0782 – 50t	71201710
Load Cell 0782 – 100t	71201711
Load Cell 0782 – 200t	71210093
Load Cell 0782 – 300t	71210169
Upper Receiver – up to 50t	61039191
Lower Receiver – up to 50t	61039190
0782 Bottom Gasket	68000443
Receiver Kit SS 0782 – 100t	72209873

Bolded entries are stocked

0782 Load Cell Cable Colours

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

Full Connectivity

Our sensors and instruments are professional communicators. METTLER TOLEDO supplies you with various data communication interfaces that allow you to communicate with your PLCs, MES or ERP systems.



Global Approvals

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



METTLER TOLEDO Service

Our extensive service network is among the best in the world and ensures maximum availability and service life of your product.

Weighing Electronics

METTLER TOLEDO offers a complete family of electronics from simple weighing to application solutions for filling, stock control, batching, formulation, counting, checkweighing.



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Environment certificate ISO 14001

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