

## 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 IIIILM 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.

# 0782 Load Cell Specifications

Parameter	unit of measure	Specification						
		0782						
Model No.		0782						
Rated Capacity (R.C.)	f (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 <sup>1) 2)</sup>	%R.C.	≤ 0.018			≤ 0.05		≤ 0.06	
Repeatability Error	%A.L. <sup>3)</sup>	≤ 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	≤ 0.002 (0.001)						
	Sensitivity <sup>2)</sup>	≤ 0.0009 (0.0005)			≤ 0.002 (0.001)			
Temperature Range	Compensated	-10 ~ +40 (+14 ~ +104)						
	Operating	-40 ~ +65 (-40 ~ +150)						
	Safe Storage	-40 ~ +80 (-40 ~ +176)						
OIML / European Approval <sup>4)</sup>	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 <sup>4)</sup>	Z	3000						
	Number	01-004						
	Class	III L M						
	nmax	10000						
	Vmin	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 <sup>4)</sup>	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 ID A22 IP 68 T60°C						
	Entity Parameters	Ui = 25V, Ci 2.6 - 6nF, Li 10.25 - 30 µH						
	Number, USA	3013511						
	Rating	IS/I,II,III/1/ABCDEF/G/T4 NI/I,II,III/2/ABCDEF/G/T4						
Factory Mutual Approval <sup>4)</sup>	Entity Parameters	Vmax=20V, Imax=600mA, Pi=1.25W Ci=4nF, Li=17.7µH						
	System Drawing No, USA	142730						
		Ci=6nF, Li=26.5µH						
Excitation Voltage	Recommended	V AC/DC 5 ~ 15						
	Max.	20						
Terminal Resistance	Excitation	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						
	Cable	PVC						
Protection	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 <sup>5)</sup>	%A.L./mm (.in) <sup>3)</sup>	0.8 (19)		2 (52)		1.6 (40)	2.5 (63)	
Max Horizontal Travel <sup>6)</sup>	± mm (in)	4 (0.16)			5 (0.20)		6 (0.24)	
	mm (in)	0.25 (0.010)			0.32 (0.013)		0.42 (0.017)	
Deflection @ R.C., nominal								
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)			
	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)	

<sup>1)</sup> Error due to the combined effect of non-linearity and hysteresis

<sup>2)</sup> 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.

<sup>3)</sup> A.L. = Applied Load

<sup>4)</sup> See certificate for complete information.

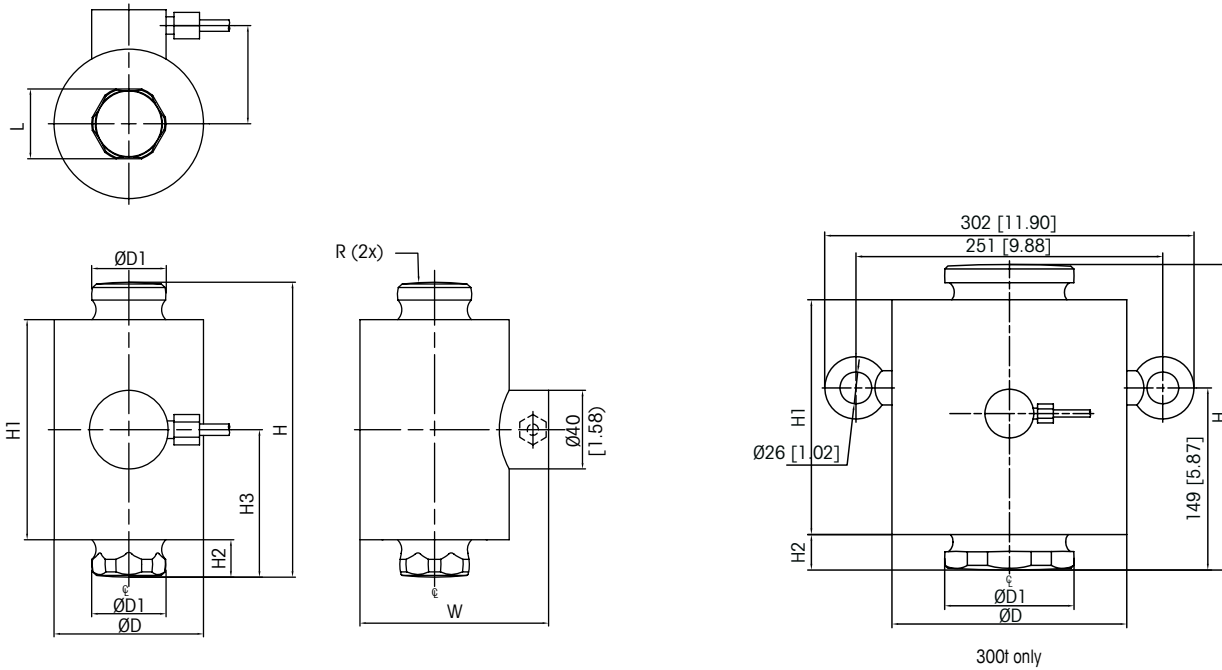
<sup>5)</sup> % of Applied Load (A.L.) per mm (in) displacement of the top button relative to the bottom button.

<sup>6)</sup> Maximum horizontal displacement of the top button relative to the bottom button.

<sup>7)</sup> In process, consult factory.

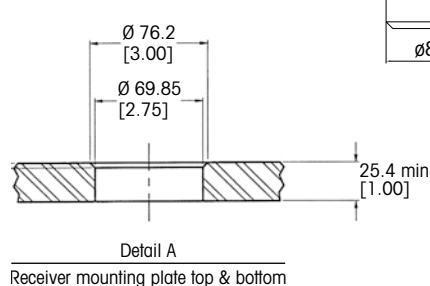
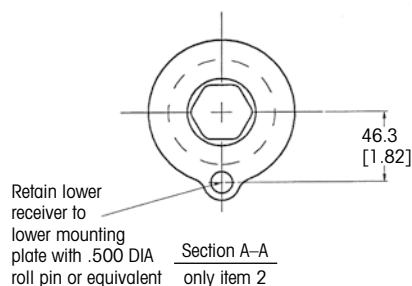
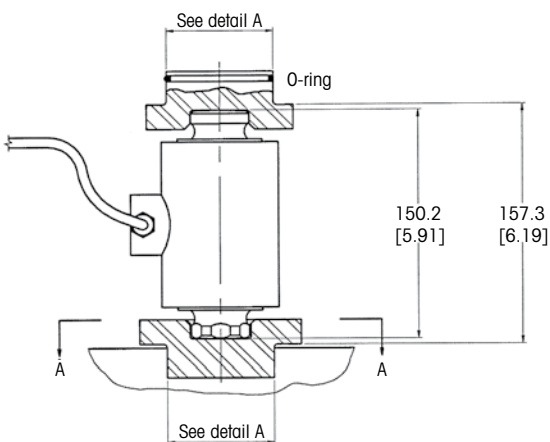


## 0782 Load Cell Dimensional Drawings mm [inch]

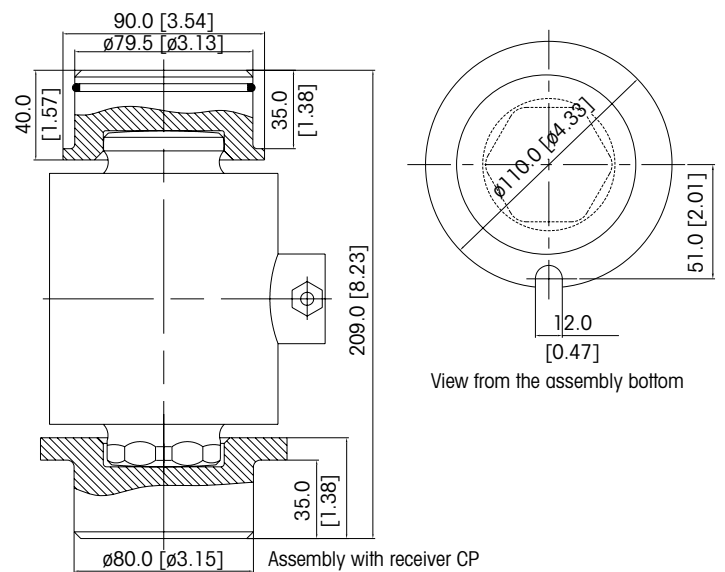


Capacity	Dimensions and Locations									
	D	D1	H	H1	H2	H3	L	L1	R	W
20-30t [33-66 klb]	76 [2.99]	37.8 [1.49]	150 [5.91]	112 [4.41]	19 [0.75]	75 [2.95]	33.5 [1.40]	50 [1.97]	160 [6.30]	96 [3.78]
50t [110 klb]	76 [2.99]	37.8 [1.49]	150 [5.91]	112 [4.41]	19 [0.75]	75 [2.95]	35.5 [1.40]	50 [1.97]	305 [12.0]	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.
<b>Load Cell 0782 – 20t</b>	<b>71201708</b>
<b>Load Cell 0782 – 30t</b>	<b>71201709</b>
<b>Load Cell 0782 – 50t</b>	<b>71201710</b>
<b>Load Cell 0782 – 100t</b>	<b>71201711</b>
<b>Load Cell 0782 – 200t</b>	<b>71210093</b>
<b>Load Cell 0782 – 300t</b>	<b>71210169</b>
<b>Upper Receiver – up to 50t</b>	<b>61039191</b>
<b>Lower Receiver – up to 50t</b>	<b>61039190</b>
<b>0782 Bottom Gasket</b>	<b>68000443</b>
<b>Receiver Kit SS 0782 – 100t</b>	<b>72209873</b>

**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.



Quality certificate ISO 9001  
Environment certificate ISO 14001

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