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.

Weigh Module
The optional METTLER TOLEDO (200t-300t) weigh module adds suspension, checking and anti-tiping to your 0782 load cell and includes top and bottom mounting plates to simplify installation.

Hermetically Sealed
The stainless steel housing is welded in place to create a hermetic seal to prevent moisture from entering the interior of the load cell and deteriorating the weighing performance or causing failure.

0782 High Capacity Load Cell
For High Capacities

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.

Every 0782 high capacity load cell features:
- OIML C3 and NTEP IIILM 10.000d approvals (20t–300t)
- ATEX Zone1/2 and 21/22 approvals
- FM Class I,II,III Div 1 approvals
- Stainless steel (20t–300t)
- Hermetically sealed design
- IP68 protection class

METTLER TOLEDO

0782 Load Cell Specifications

Parameter		unit of measure	Specification					
Model No.			0782					
Rated Capacity (R.C.)		t (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	°C (°F)	-10 ~ +40 (+14 ~ +104)					
	Operating		-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		CH					
	Min. dead load	kg (lb)	0 (0)					
	Z		3000					
NTEP Approval [4)]	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)		
	Min. dead load	kg (lb)	50 (100)					
ATEX Approval [4)]	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 = 13-30µH					
	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					
	Entity Parameters		Ui = 25V, Ci 2.6-6nF, Li = 13-30µH					
IECEx Approval [4)]			In preparation for Cat 2GD and 3GD					
Factory Mutual Approval [4)]	Number, USA		3013511					
	Rating		IS/I,II,III/1/ABCDEFG/T4					
			NI/I,II,III/2/ABCDFG/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	1150 ± 25					
	Output		1000 ± 3					
Insulation Resistance @50VDC		MΩ	> 5000					
Breakdown Voltage		V AC	>500					
Material	Spring Element		stainless steel					
	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 [5)]		%A.L./mm (../in)	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.

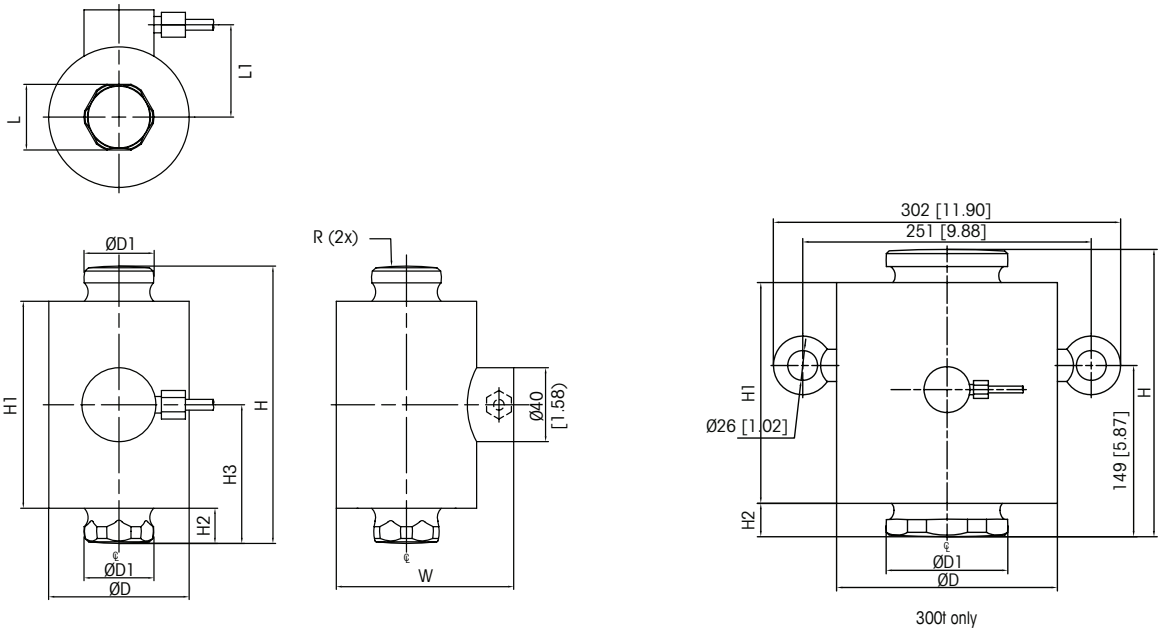
[3)] A.L. = Applied Load

[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.

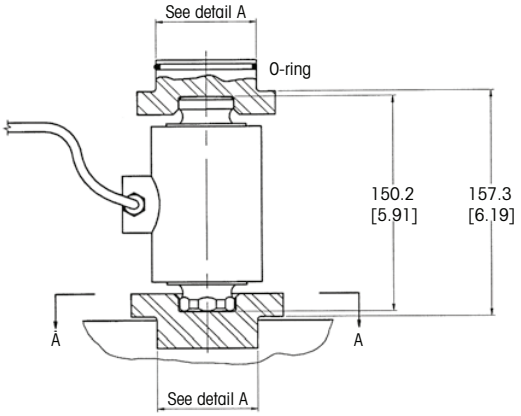
[6)] Maximum horizontal displacement of the top button relative to the bottom button.

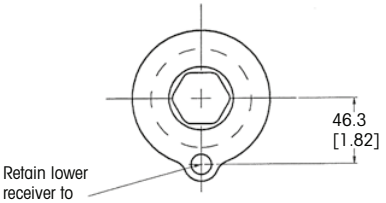
0782 Load Cell Dimensional Drawings mm [in]

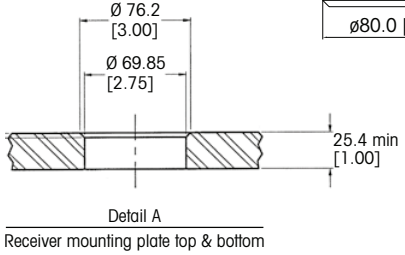


Capacity	Dimensions and Locations									
	D	D1	H	H1	H2	H3	L	L1	R	W
20–30t [33–66 klb]	76 [2.99]	37.8 [1.49]	150 [5.91]	112 [4.41]	19 [0.75]	75 [2.95]	33.5 [1.40]	50 [1.97]	160 [6.30]	96 [3.78]
50t [110 klb]	76 [2.99]	37.8 [1.49]	150 [[5.91]	112 [4.41]	19 [0.75]	75 [2.95]	35.5 [1.40]	50 [1.97]	305 [12.0]	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 [5.75]	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]

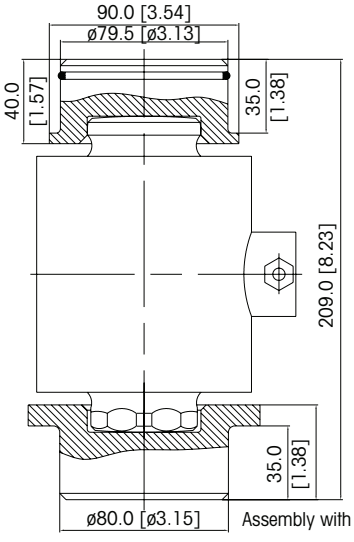
0782 Load Cell Receivers mm [in] 20t–50t

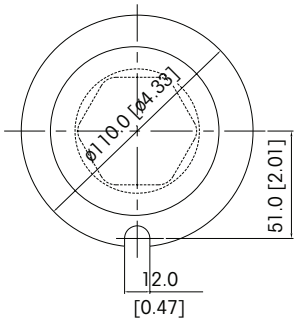






0782 Load Cell Receivers mm [in] 100t





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

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

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

EtherNet/IP DeviceNet ControlNet PROFIBUS ENCOMPASS ENABLED ModConnect

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.

OIML NTEP Ex FM APPROVED IECEx

Weighing Electronics

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

METTLER TOLEDO Service

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

ISO 9001 ISO 14001

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