

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 and 21 approvals (20t–100t)
- FM Class I,II,III Div 1 approvals (20t–100t)
- 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 (20t–100t).

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					
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	°C (°F) -30 ~ +65 (-22 ~ + 150)					
	Safe Storage	°C (°F) -40 ~ +80 (-40 ~ + 176)					
OIML / European Approval ⁴⁾	OIML Cert. No.	R60/2000-NL-01.04					
	European Cert. No.	NMI TC5844					
	Class	C3					
	n _{max}	3000					
	Y	6666					
	P _{Lc}	0.7					
	Humidity Symbol	none					
	Min. dead load	kg (lb)	0 (0)				
NTEP Approval ⁴⁾	Z	3000					
	Number	01-004					
	Class	III L M					
	n _{max}	10000					
	V _{min}	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 GD EEx ib IIB T4 T50°C					
Factory Mutual Approval ⁴⁾	Entity Parameters	Ui=20V, Ii=600mA, Pi=1.25W, Ci=9nF, Li=65µH					
	Number, USA	3013511					
	Rating	ISA/II,III/1/ABCDEFG/T4					
	Entity Parameters	Vmax=20V, Imax=600mA, Pi=1.25W, Ci=9nF, Li=65µH					
Excitation Voltage	Recommended	V AC/DC 5~15					
	Maximum	V AC/DC 20					
Terminal Resistance	Excitation	Ω 1160 ± 10				1160 ± 15	
	Output	Ω 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	%R.C. 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)
Drawing No.	Dimensions	12202672					12203541
	To-Scale	12202671					

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

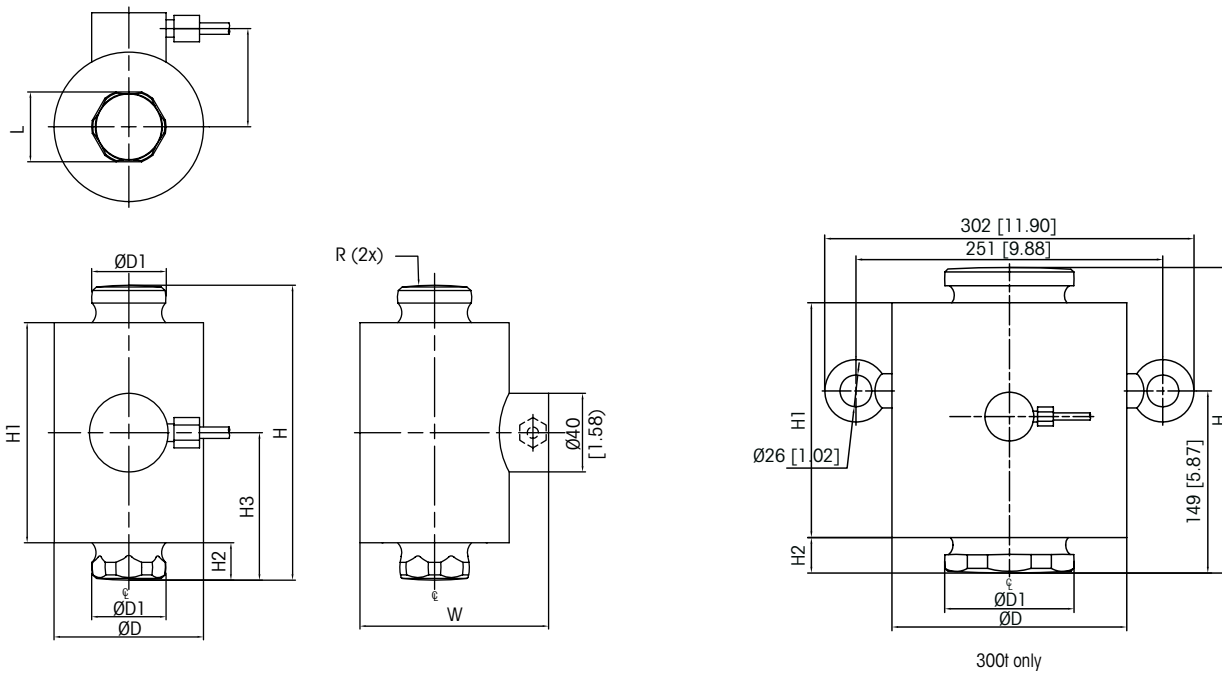
⁵⁾ % of Applied Load (A.L.) per mm (in) displacement of the top button relative to the bottom button

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

⁷⁾ In process, consult factory

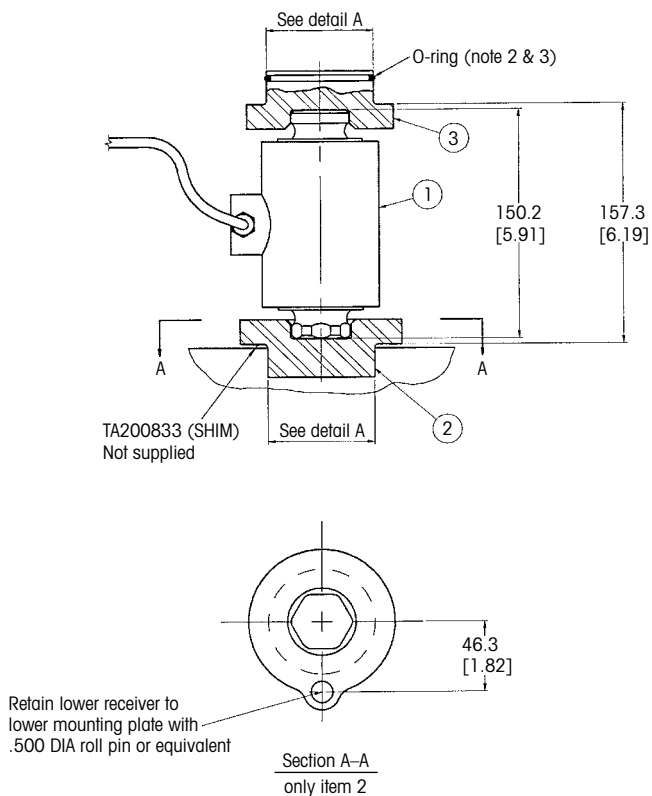


0782 Load Cell Dimensional Drawings mm [inch]



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 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

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.



Worldwide Services

Use METTLER TOLEDO service including fast parts availability from our local supply or one of our logistics centers in Europe, Asia and America. Trained technicians can assist in professional service, installation and approval worldwide.

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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Printed in Switzerland MTSI 44099801
MarCom Industrial

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