

Easy System Integration Platform Size 400x400 mm



Bench and Floor Scales

MT1241 provides the best weighing performance for bench scales and smaller floor scales in its capacity range. With a low profile design, cost optimization and an attractive product appearance can be achieved.



Off-Center compensation

One load cell can be used to support a weighing platform and, due to the off-center load compensation, the MT1241 will weigh within tolerance regardless of load application point.



Robustness

MT1241 allows 50% static overload without compromising the weighing performance. The passivated aluminium provides good corrosion resistance suitable for many industrial applications.

MT1241 Single Point Load Cell

The MT1241 load cell features:

- OIML R60 C3 approval
- NTEP 5000 III S/M approval
- ATEX Zone 1/2 and 21/22 approvals
- Off-center load compensation (R76)
- 400x400 mm platform size
- IP67 protection class
- Passivated aluminium
- 30-250kg capacity range

The MT1241 is the ideal solution for small floor scales and hoppers. Due to the low profile the integration into any system is easy. The broad capacity range allows wide application in industrial weighing applications.

MT1241 Load Cell Specifications

Parameter		unit of measure	Specification						
Model No.			MT1241						
Rated Capacity (R.C.)		kg (lb, nominal)	30 (66)	50 (110)	100 (220)	150 (331)	200 (441)	250 (551)	
Rated Output		mV/V @R.C.	2 ± 0.2						
Zero load Output		%R.C.	≤ 10						
Combined Error ^{1) 2)}		%R.C.	≤ 0.016						
Repeatability Error		%A.L. ³⁾	≤ 0.01						
Creep, 30 minute		%A.L.	≤ 0.0167						
Min. Dead Load Output Return (DR), 30 min		%A.L.	≤ 0.0167						
Temperature Effect on		Min. Dead load Output	≤ 0.0014 (0.0008)						
		Sensitivity ²⁾	≤ 0.0007 (0.00036)						
Temperature Range		Compensated	-10 ~ +40 (+14 ~ +104)						
		Operating	-20 ~ +65 (-4 ~ +150)						
		Safe Storage	-20 ~ +80 (-4 ~ +176)						
OIML / European Approval ⁴⁾		OIML Cert. No.	R60/2000-NL1-03.10						
		European Cert. No.	NMI TC5382						
		Class	C3						
		nmax	3500						
		Vmin	g	5	8.3	16.7	25	33.3	41.7
		PLC	0.7						
		Humidity Symbol	none						
		Min. dead load	0 (0)						
		Z	3500						
NTEP Approval ⁴⁾		Number	11-088						
		Class	III S, III M						
		nmax	5000						
		Vmin	g (lb)	4.4 (0.01)	8.8 (0.02)	22 (0.05)	22 (0.05)	22 (0.05)	44 (0.1)
		Min. dead load	kg (lb)	0 (0)					
		Number, cat. 2	KEMA 09ATEX0003 X						
		Number, cat. 3	KEMA 09ATEX0004 X						
ATEX Approval ⁴⁾		Rating	II 2 G Ex ib IIC T4						
			II 2 D Ex ibD 21 IP66 T135°C						
			II 3 G Ex nA II T4						
			II 3 G Ex nL IIC T4						
			II 3 D Ex tD A22 IP6X T100°C						
		Entity Parameters	Ui/Un=20V, Ii=600mA, Pi=1.25W, Ci=5nF, Li=30µH						
Excitation Voltage		Recommended	5 ~ 15						
		Max.	20						
Terminal Resistance		Excitation	410 ± 10						
		Output	350 ± 4						
Insulation Resistance @50VDC		MΩ	> 5000						
Breakdown Voltage		V AC	> 500						
Material		Spring Element	Aluminium						
		Enclosure	none						
		Cable	PVC						
Protection		Type	potted						
		IP Rating	IP 67						
		NEMA Rating	NEMA 6/6P						
Load Limit		Safe	150						
		Ultimate	300						
Safe Dynamic Load		%R.C.	70						
Fatigue Life		cycles @R.C.	> 1000000						
Direction of Loading			beam						
Deflection @ R.C., nominal		mm (in)	0.3 (0.012)						
Weight, nominal		kg (lb)	1.2 (2.6)						
Cable Length		m (ft)	2 (6.6)						
Barometric Pressure Effect on Zero Load Output		kg/kPa (lb/in.Hg)	none						
Safe Side Load		%R.C.	100						
Overload Protection			none						
Mounting Screw		Grade	12.9						
		Size/thread	M6x1						
		Engaged Length	12 (0.47)						
		Torque, nominal	10 (7.5)						
Max Platter Size		cm x cm (in x in)	40 x 40 (16 x 16)						
Off Center Load Error, R76-1		%A.L./cm (./in)	0.0049 (0.012)						

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

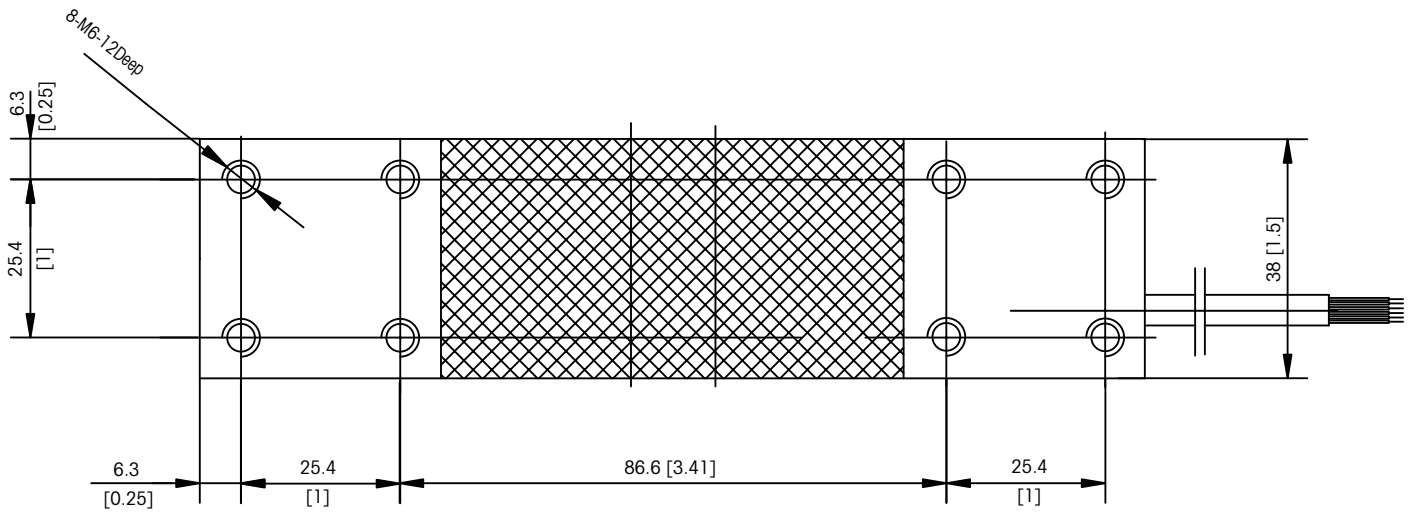
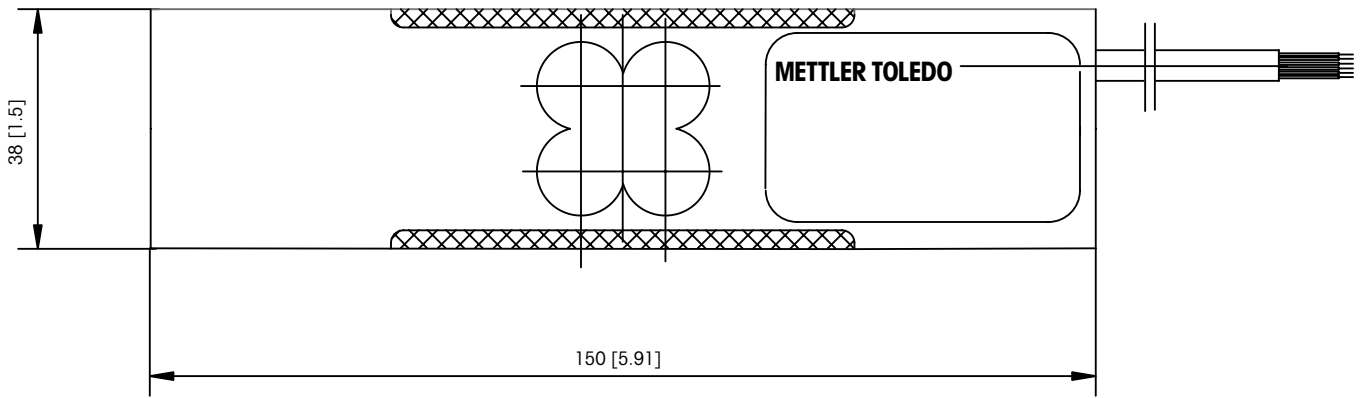
²⁾ Typical values only. The sum of errors due to Combined Error and Temperature Effect on Sensitivity comply with the requirements of OIML R60 and NIST HB44.

³⁾ A.L. = Applied Load

⁴⁾ See certificate for complete information.



MT1241 Load Cell Dimensional Drawings mm [inch]



MT1241 Load Cell Order Information

Description	Item No.
Load cell, model no. MT1241-30kg 2m Cable	71207451
Load cell, model no. MT1241-50kg 2m Cable	71207452
Load cell, model no. MT1241-100kg 2m Cable	71207453
Load cell, model no. MT1241-150kg 2m Cable	71201841
Load cell, model no. MT1241-200kg 2m Cable	71201842
Load cell, model no. MT1241-250kg 2m Cable	71207454
Load cell, model no. MT1241-30kg 6m Cable	72208493
Load cell, model no. MT1241-50kg 6m Cable	72208494
Load cell, model no. MT1241-100kg 6m Cable	72208495
Load cell, model no. MT1241-150kg 6m Cable	72208496
Load cell, model no. MT1241-200kg 6m Cable	72208497
Load cell, model no. MT1241-250kg 6m Cable	72208498

Bolded entries are stocked

MT1241 Load Cell Cable Colours

Colour	Function
Green	+ Excitation
Black	- Excitation
Red	+ Signal
White	- Signal
Blue	+ Sense
Brown	- Sense
Yellow	+ 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.



OIML Approvals

The MT1241 is provided with C3.5 approval acc. to OIML R60. Thus best weighing performance is guaranteed at all specified conditions. Benefit from METTLER TOLEDO experience.

METTLER TOLEDO Service

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



Quality certificate ISO 9001
Environment certificate ISO 14001

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Weighing Electronics

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