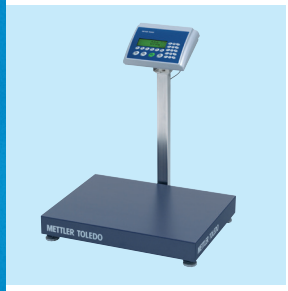
MT1241 Load Cell

Easy System Integration

Platform Size 400x400 mm



Bench and Floor Scales

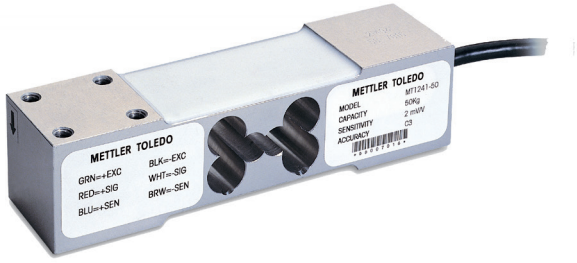
MT1241 provides the best weighing performance for bench scales and smaller floor scales in its capacity range. With a low profile design, cost optimization and an attractive product appearance can be achieved.

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 aluminum
- 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	%R.C./°C (../°F)	≤ 0.0014 (0.0008)					
	Sensitivity [2)]	%A.L./°C (../°F)	≤ 0.0007 (0.00036)					
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-NL1-03.10					
	European Cert. No.		NMi TC5382					
	Class		C3					
	nmax		3500					
	Vmin	g	10000					
	PLC		0.7					
	Humidity symbol		None					
	Min. dead load	kg (lb)	0 (0)					
	Z		3500					
NTEP approval [4)]	Number		11-088					
	Class		III S, III M					
	nmax		5000					
	Vmin	g (lb)	3 (0.0066)	5 (0.011)	10 (0.022)	15 (0.033)	20 (0.044)	25 (0.055)
	Min. dead load	kg (lb)	0 (0)					
ATEX approval [4)]	Number, cat. 2		KEMA 09ATEX0003 X					
	Number, cat. 3		KEMA 09ATEX0004 X					
	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 IP66 T135°C					
	Entity parameters		Ui/Un=20V, Ii=600mA, Pi=1.25W, Ci=5nF, Li=30µH					
Excitation voltage	Recommended	V AC/DC	5 ~ 15					
	Max.		20					
Terminal resistance	Excitation	Ω	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	%R.C.	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	mm (in)	M6x1					
	Engaged length	mm (in)	12 (0.47)					
	Torque, nominal	N.m (ft-lb)	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)					

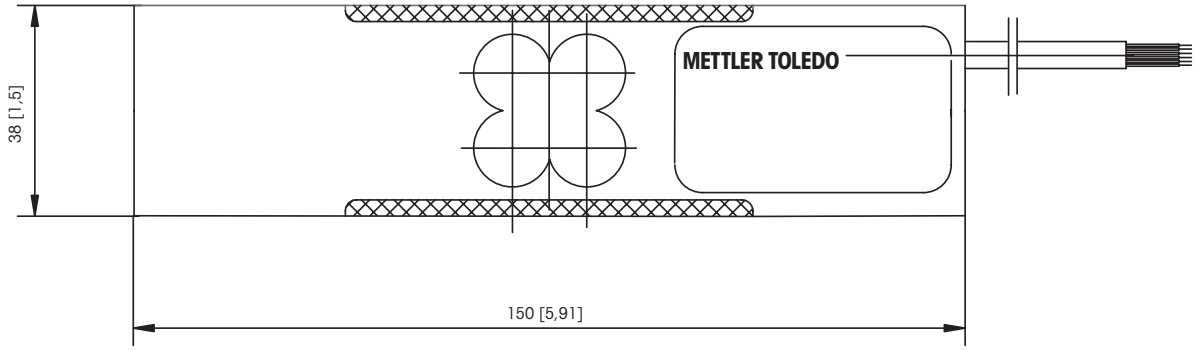
[1)] Error due to the combined effect of non-linearity and hysteresis

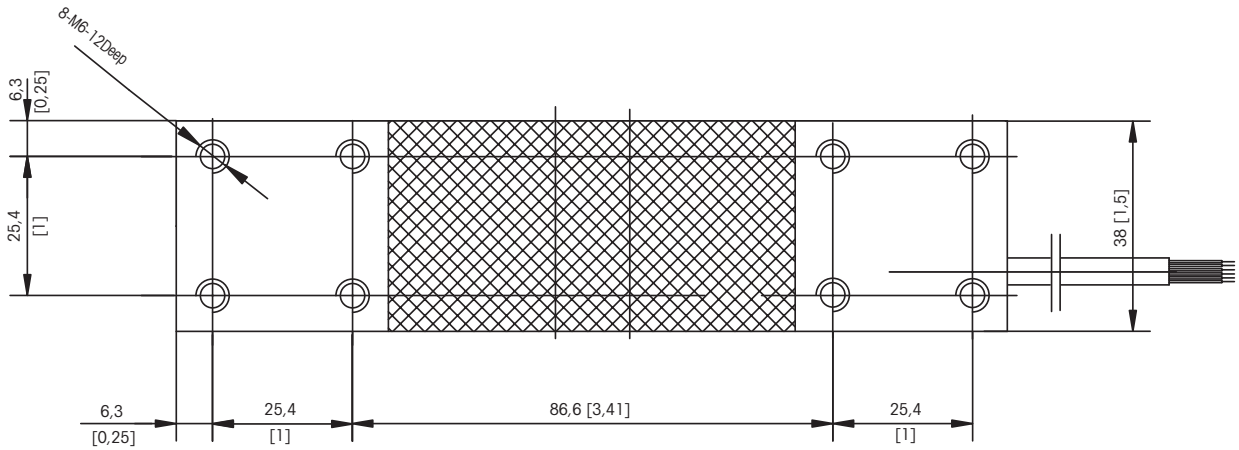
[2)] Typical values only. The sum of errors due to combined error and temperature effect on sensitivity comply with the requirements of OIML R60 and NIST HB44.

[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

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.

Weighing Electronics

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

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