

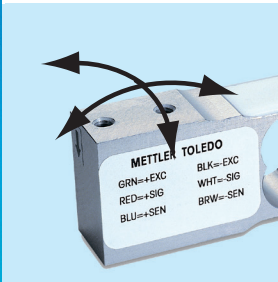
Easy System Integration

Platform Size 400x400 mm



Bench Scales, Packaging

MT1041 provides best weighing performance with a low profile design optimized for the popular 10-100kg capacity range. Thus cost optimization and an attractive product appearance can be achieved.



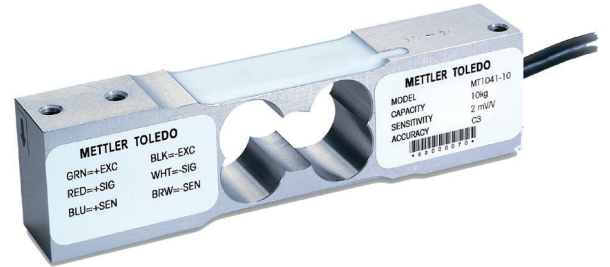
Off-Center compensation

One load cell can be used to support a weighing platform and, due to the off center load compensation, the MT1041 will weigh within tolerance regardless of load application point.



Robustness

MT1041 allows 50% static overload without compromising the weighing performance. The passivated aluminium provides good corrosion resistance suitable for many industrial applications.



MT1041 Single Point Load Cell

The MT1041 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
- 10-100kg capacity range

The MT1041 is the ideal solution for retail scales, small platform scales, packaging and process weighing. Due to the low profile the integration into any system is easy. With a capacity range of 10-100kg and allowable platform size of 400x400mm, the MT1041 is the ideal solution for many scale applications.

MT1041 Load Cell Specifications

Parameter	Unit of measure	Specification							
Model No.		MT1041							
Rated capacity (R.C.)	kg (lb, nominal)	10 (22)	15 (33)	20 (44)	30 (66)	50 (110)	75 (165)	100 (220)	
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)							
	Sensitivity ²⁾	%A.L./°C (./°F)							
Temperature range	Compensated	-10 ~ +40 (+14 ~ +104)							
	Operating	-40 ~ +65 (-40 ~ +150)							
	Safe storage	-40 ~ +80 (-40 ~ +176)							
OIML / European approval ⁴⁾	OIML Cert. No.	R60/2017-A-NL1-20.06							
	European Cert. No.	NMI-1902131-06							
	Class	C3							
	nmax	3000							
	Y	10000							
	PLC	0.7							
	Humidity symbol	None							
	Min. dead load	kg (lb)	0 (0)						
	Z		3000						
	NTEP approval ⁴⁾	Number	11-088						
Class		III S, III M							
nmax		5000							
Vmin		g (lb)	1 (0.0022)	1.5 (0.0033)	2 (0.0044)	3 (0.0066)	5 (0.011)	7.5 (0.016)	10 (0.022)
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						
Entity parameters		II 3 D Ex tD A22 IP66 T135°C Ui/Un=20V, Ii=600mA, Pi=1.25W, Ci=5nF, Li=30µH							
Excitation voltage	Recommended	V AC/DC							
	Max.	5 ~ 15							
Terminal resistance	Excitation	Ω							
	Output	410 ± 10							
Insulation resistance @50VDC	MΩ	350 ± 4							
Breakdown voltage	V AC	> 5000							
Material	Spring element	V AC							
	Enclosure	Aluminium							
	Cable	None							
Protection	Type	PVC							
	IP rating	Pollted							
	NEMA rating	IP 67							
Load limit	Safe	NEMA 6/6P							
	Ultimate	%R.C.	150						
Safe dynamic load	%R.C.	300							
Fatigue life	cycles @R.C.	70							
Direction of loading		> 1000000							
Deflection @ R.C., nominal	mm (in)	Beam							
Weight, nominal	kg (lb)	< 0.5 (0.020)							
Cable length	m (ft)	0.9 (2)							
Barometric pressure effect on zero load output	kg/kPa (lb/in.Hg)	2 (6.6)							
Safe side load	%R.C.	None							
Overload protection		100							
	Grade	None							
Mounting screw	Size/thread	12.9							
	Engaged length	mm (in)	M6x1						
	Torque, nominal	N.m (ft-lb)	12 (0.47)						
Max. platter size	cm x cm (in x in)	10 (7.5)							
Off center load error, R76-1	%A.L./cm (./in)	40 x 40 (16 x 16)							
		0.0049 (0.012)							

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

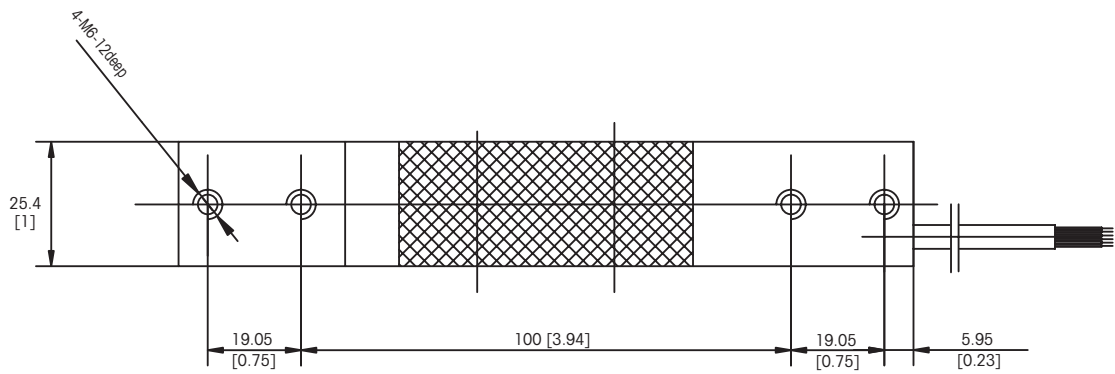
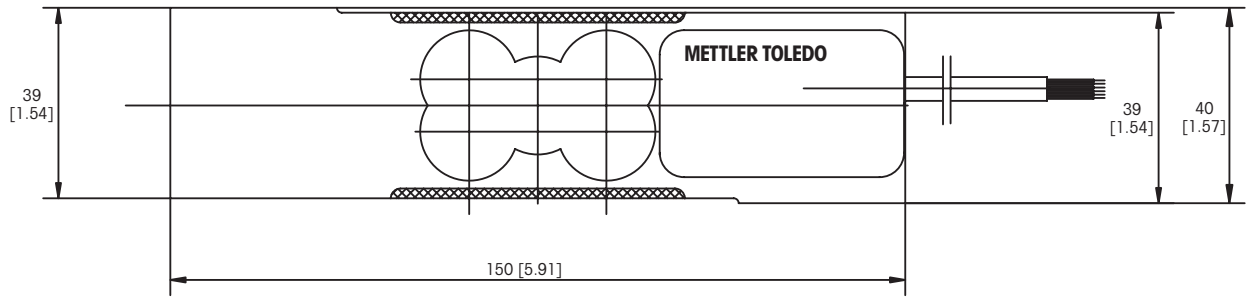
²⁾ Typical values only. The sum of errors due to combined error and temperature effect on sensitivity comply with the requirements of OIML R60 and NIST HB44.

³⁾ A.L. = Applied Load

⁴⁾ See certificate for complete information.



MT1041 Load Cell Dimensional Drawings mm [inch]



MT1041 Load Cell Order Information

Description		Item No.
Load cell, model no. MT1041-10kg	2m Cable	71201832
Load cell, model no. MT1041-15kg	2m Cable	71201833
Load cell, model no. MT1041-20kg	2m Cable	71201834
Load cell, model no. MT1041-30kg	2m Cable	71201835
Load cell, model no. MT1041-50kg	2m Cable	71201836
Load cell, model no. MT1041-75kg	2m Cable	71201837
Load cell, model no. MT1041-100kg	2m Cable	71201838
Load cell, model no. MT1041-10kg	6m Cable	72208499
Load cell, model no. MT1041-15kg	6m Cable	72208500
Load cell, model no. MT1041-20kg	6m Cable	72208501
Load cell, model no. MT1041-30kg	6m Cable	72208502
Load cell, model no. MT1041-50kg	6m Cable	72208503
Load cell, model no. MT1041-75kg	6m Cable	72208504
Load cell, model no. MT1041-100kg	6m Cable	72208505

Bolded entries are stocked

MT1041 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.



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.



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