

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	≤ 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.	R60/1991-NL-98.16							
		European Cert. No.	NMI TC5366							
		Class	C3							
		nmax	3000							
		Vmin	g	2	3	4	6	10	15	20
		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)			2.2 (0.005)	2.2 (0.005)	2.2 (0.005)	4.4 (0.01)	8.8 (0.02)	8.8 (0.02)	22 (0.05)
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	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)	0.9 (2)							
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)							

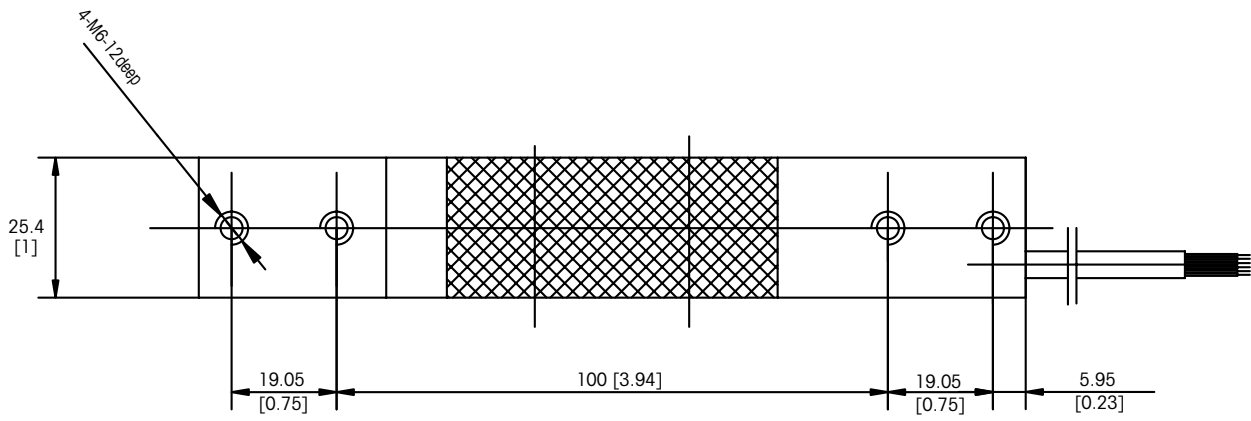
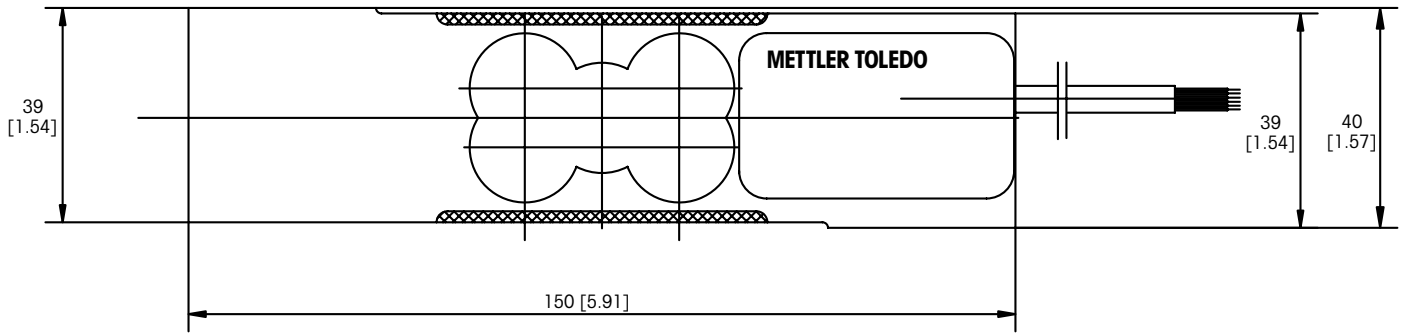
¹⁾ Error due to the combined effect of non-linearity and hysteresis

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.

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.



OIML Approvals

The MT1041 is provided with C3 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.