

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 aluminium
- 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							
NTEP Approval ⁴⁾	Min. dead load	0 (0)								
	Z	3000								
	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		II 3 D Ex tD A22 IP6X T100°C							
		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

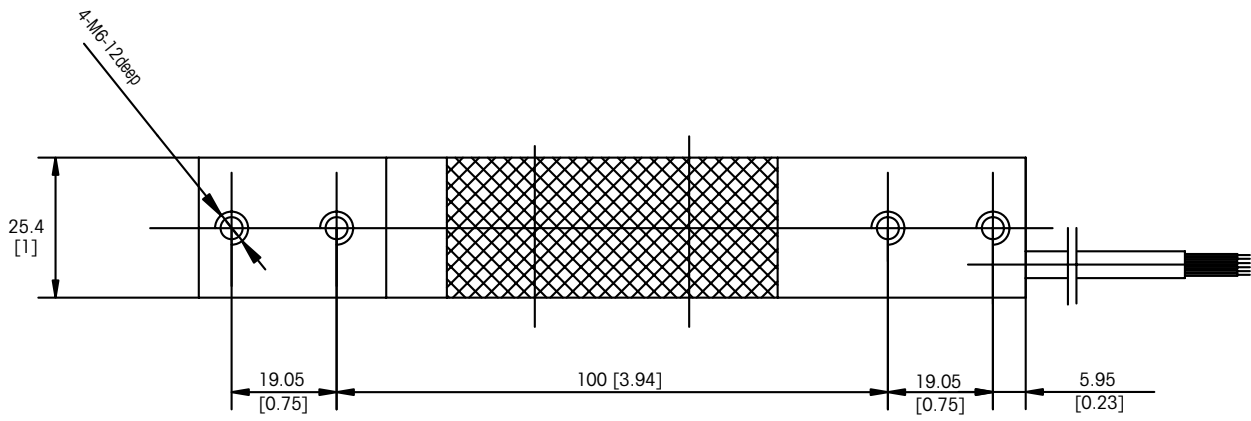
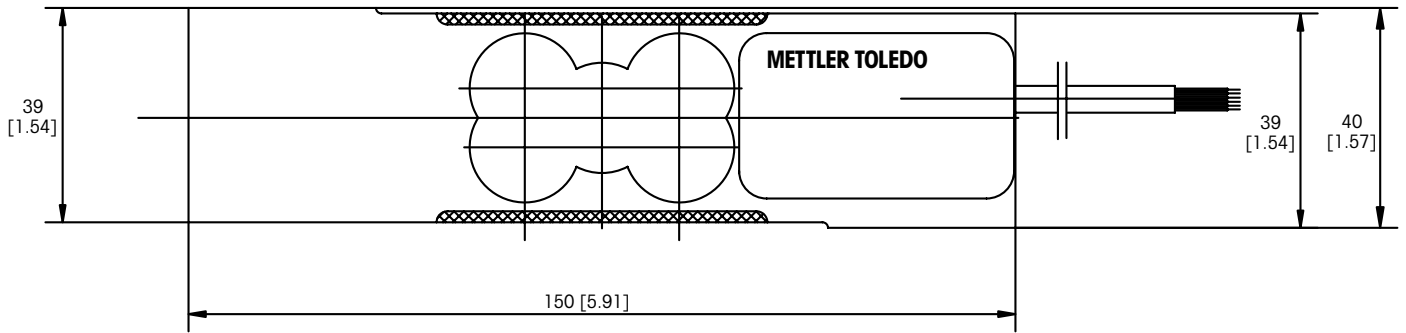
²⁾ Typical values only. The sum of errors due to Combined Error and Temperature Effect on Sensitivity comply with the requirements of OIML R60 and NIST HB44.

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.



Quality certificate ISO 9001
Environment certificate ISO 14001

Subject to technical changes.
© 11/2011 Mettler-Toledo AG
Printed in Switzerland MTSI 44099816
MarCom Industrial

www.mt.com

Visit for more information