

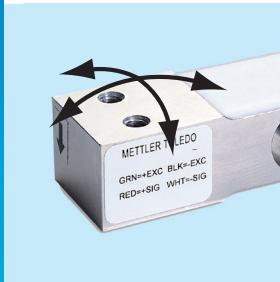
## Easy System Integration

### Platform Size 350x350 mm



#### Retail and Bench Scales

MT1022 provides the best weighing performance with such a low profile design. This saves cost in the scale design and makes an attractive low-profile product possible without compromising on performance.



#### Off-Center Compensation

One load cell can be used to support a weighing platform and, due to the off-center load compensation, the MT1022 will weigh within tolerance regardless of load application point.



#### Robustness

MT1022 allows 50% static overload without compromising the weighing performance. The passivated aluminum provides good corrosion resistance suitable for many industrial applications.



#### MT1022 Single Point Load Cell

The MT1022 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)
- 350x350 mm platform size
- IP67 protection class
- Passivated aluminum
- 3–30 kg capacity range

The MT1022 is the ideal solution for retail scales, small platform scales and packaging and process weighing. Due to the low profile the integration into any system is easy. The low capacity range (3 – 30 kg) allows the construction of highly accurate low-capacity scales.

# MT1022 Load Cell Specifications

Parameter	Unit of measure	Specification								
Model No.		MT1022								
Rated capacity (R.C.)	kg (lb, nominal)	3 (6.6)	5 (11)	7 (15.4)	10 (22)	15 (33)	20 (44.1)	30 (66.1)		
Rated output	mV/V @R.C.	2 ± 0.2								
Zero load output	%R.C.	≤ 10								
Combined error <sup>1) 2)</sup>	%R.C.	≤ 0.016								
Repeatability error	%A.L. <sup>3)</sup>	≤ 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 <sup>2)</sup>	%A.L./°C (./°F) ≤ 0.0007 (0.00036)								
Temperature range	Compensated	-10 ~ +40 (+14 ~ +104)								
	Operating	-40 ~ +65 (-40 ~ +150)								
	Safe storage	-40 ~ +80 (-40 ~ +176)								
OIML / European approval <sup>4)</sup>	OIML Cert. No.	R60/2017-A-NL1-20.05								
	European Cert. No.	NMI-1902131-05								
	Class	C3								
	nmax	3000								
	Y	9000								
	PLC	0.7								
	Humidity symbol	None								
	Min. dead load	kg (lb)	0 (0)							
	Z		3000							
NTEP approval <sup>4)</sup>	Number	11-088								
	Class	III S, III M								
	nmax	5000								
	Vmin	g (lb)	0.3 (0.0007)	0.5 (0.0011)	0.7 (0.0015)	1 (0.0022)	1.5 (0.0033)	2 (0.0044)	3 (0.0066)	
Min. dead load	kg (lb)	0 (0)								
ATEX approval <sup>4)</sup>	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 ID A22 IP66 T135°C								
Excitation voltage	Recommended	Ui/Un=20V, Ii=600mA, Pi=1.25W, Ci=5nF, Li=30µH								
	Max.	V AC/DC 5 ~ 15								
Terminal resistance	Excitation	Ω 20								
	Output	410 ± 10								
Insulation resistance @50VDC	MΩ	350 ± 4								
Breakdown voltage	V AC	> 5000								
Material	Spring element	> 500								
	Enclosure	Aluminium								
	Cable	None								
Protection	Type	PVC								
	IP Rating	Potted								
	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.	%R.C. 70								
Direction of loading		> 1000000								
Deflection @ R.C., nominal	mm (in)	< 0.8 (0.031)				< 0.5 (0.020)				
Weight, nominal	kg (lb)	Beam								
Cable length	m (ft)	0.5 (1.1)								
Barometric pressure effect on zero load output	kg/kPa (lb/in.Hg)	1 (3.3), 3m (6.6)								
Safe side load	%R.C.	None								
Overload protection		100								
Mounting screw	Grade	None								
	Size/thread	12.9								
	Engaged length	mm (in) M6x1								
	Torque, nominal	mm (in) 12 (0.47)								
Max. platter size	cm x cm (in x in)	N.m (ft-lb) 10 (7.5)								
Off center load error, R76-1	%A.L./cm (./in)	cm x cm (in x in) 35 x 35 (14 x 14)								
		0.0057 (0.0145)								

<sup>1)</sup> Error due to the combined effect of non-linearity and hysteresis

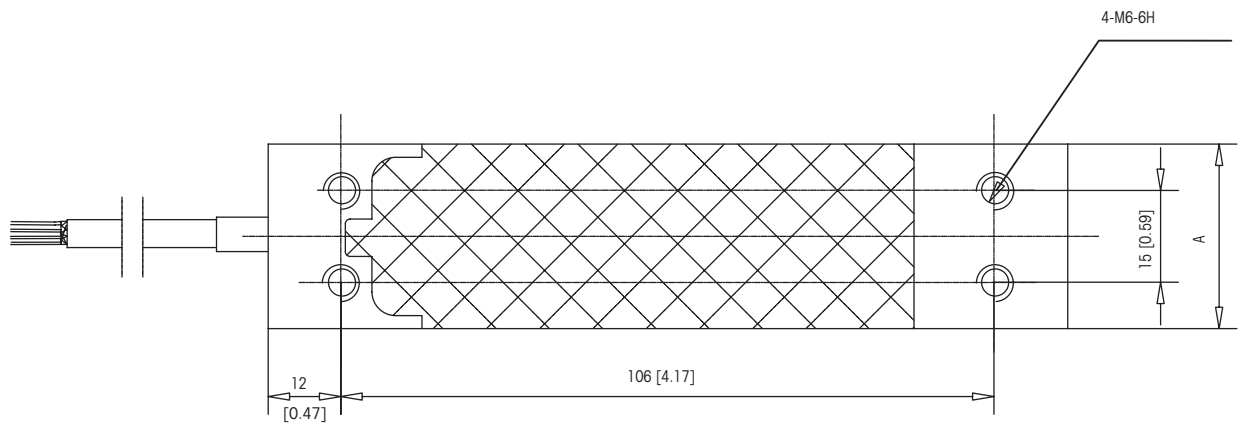
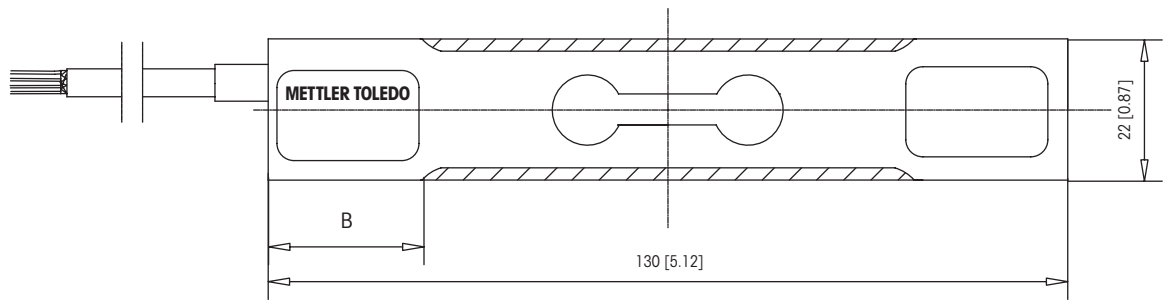
<sup>2)</sup> Typical values only. The sum of errors due to combined error and temperature effect on sensitivity comply with the requirements of OIML R60 and NIST HB44.

<sup>3)</sup> A.L. = Applied Load

<sup>4)</sup> See certificate for complete information.



# MT1022 Load Cell Dimensional Drawings mm [inch]



Load Cell Capacity	A	B
3, 5, 7 kg	25.4 [1.0]	25 mm [0.98]
10, 15, 20, 30 kg	30 [1.18]	32 mm [1.26]

## MT1022 Load Cell Order Information

Description		Item No.
Load cell, model no. MT1022-3kg	1m Cable	71201825
Load cell, model no. MT1022-5kg	1m Cable	71201826
Load cell, model no. MT1022-7kg	1m Cable	71201827
Load cell, model no. MT1022-10kg	1m Cable	71207450
Load cell, model no. MT1022-15kg	1m Cable	71201829
Load cell, model no. MT1022-20kg	1m Cable	71201830
Load cell, model no. MT1022-30kg	1m Cable	71207741
Load cell, model no. MT1022-3kg	3m Cable	72208506
Load cell, model no. MT1022-5kg	3m Cable	72208507
Load cell, model no. MT1022-7kg	3m Cable	72208508
Load cell, model no. MT1022-10kg	3m Cable	72208509
Load cell, model no. MT1022-15kg	3m Cable	72208510
Load cell, model no. MT1022-20kg	3m Cable	72208511
Load cell, model no. MT1022-30kg	3m Cable	72208512

## MT1022 Load Cell Cable Colours

Colour	Function
Green	+ Excitation
Black	- Excitation
Red	+ Signal
White	- Signal
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, and checkweighing.



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