

# Globally Approved for Accuracy and Safety



## Applications

0743 is ideal for floor scales, tank and hopper scales in process industries. It is constructed of stainless steel which provides excellent corrosion protection. The full set of approvals makes it the right choice for your application.



## Tank Weighing

The capacity range from 9t to 20.4t is ideal for mid size tank and hopper weighing in most demanding applications.



## Hermetically Sealed

The stainless steel cups are welded in place to create a hermetic seal to prevent moisture from entering the interior of the load cell and deteriorating the weighing performance.



## 0743 High Capacity Beam Load Cell

The 0743 beam load cell features:

- OIML C3, and NTEP ClassIIIIM 5000d approvals
- ATEX Zone1/2 and 21/22 approvals
- FM Class I,II,III Div 1&2 approvals
- Stainless steel
- Hermetically sealed design
- IP68 protection class

Every 0743 comes with all the approvals listed.

The 0743 is a stainless beam load cell designed for harsh and hazardous environments specifically for the process industry. 0743 is approved for use in various applications in Europe, Asia, America and almost everywhere else in the world. If an approval is required, the 0743 probably already complies.

**METTLER TOLEDO**

## 0743 Load Cell Specifications

Parameter	unit of measure	Specification			
Model No:		0743			
Rated Capacity (R.C.)	† nominal (lb)	9.07 (20000)	13.6 (30000)	20.4 (45000)	
Rated Output	mV/V @R.C.	2 ± 0.005			
Zero load Output	%R.C.	≤ 1.5			
Combined Error <sup>1) 2)</sup>	%R.C.	≤ 0.018			
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) ≤ 0.002 (0.001)			
	Sensitivity <sup>2)</sup>	%A.L./°C (./°F) ≤ 0.0009 (0.0005)			
Temperature Range	Compensated	°C (°F) -10 to +40 (+14 to +104)			
	Operating	°C (°F) -20 to +65 (-4 to +122)			
	Safe Storage	°C (°F) -40 ~ +80 (-40 ~ +176)			
OIML / European Approval <sup>4)</sup>	OIML Cert. No.	R60/1991-NL-97.31			
	European Cert. No.	NMI TC2977			
	Class	C3			
	n <sub>max</sub>	3000			
	Y	6000			
	P <sub>Lc</sub>	0.7			
	Humidity Symbol	none			
Min. dead load	kg (lb)	50 (110)	100 (220)		
NTEP Approval <sup>2)</sup>	Number	88-008			
	Class	III M			
	n <sub>max</sub>	5000			
	V <sub>min</sub>	kg (lb)	1.3 (2.8)	1.9 (4.2)	2.9 (6.4)
	Min. dead load	kg (lb)	90 (200)		
ATEX Approval <sup>4)</sup>	Number, Category 2	KEMA 03ATEX1069			
	Number, Category 3	KEMA 03ATEX1070			
	Ratings	II 2 G Ex ia IIC T4 Gb			
		II 2 D Ex tb IIIC T100 °C Db			
		II 3 G Ex ic IIC T4 T Gc II 3 G Ex na IIC T4 Gc II 3 D Ex tc IIIC T100 °C Dc			
Entity Parameters	U <sub>i</sub> =25V, I <sub>i</sub> =600mA, P <sub>i</sub> =1.25W, C <sub>i</sub> =5nF, L <sub>i</sub> =30µH U <sub>n</sub> = 25V				
Number	3005885				
Factory Mutual Approval <sup>4)</sup>	Rating	IS / I,II,III / 1 / ABCDEF6 / T4			
		NI / I / 2 / ABCD / T6			
		S / II,III / 2 / FG / T6			
	Entity Parameters	V <sub>max</sub> =25V, I <sub>max</sub> =600mA, P <sub>i</sub> =1.25W, C <sub>i</sub> =0, L <sub>i</sub> =29µH			
System Drawing No	158574R				
Excitation Voltage	Recommended	V AC/DC 5-15			
	Maximum	V AC/DC 20			
Terminal Resistance	Excitation	Ω	380±20	2200 ± 100	
	Output	Ω	350 ± 2	2000 ± 20	
Insulation Resistance @50VDC	MΩ	≥ 5000			
Breakdown Voltage	V AC	> 500			
Material	Spring Element	stainless steel			
	Enclosures	304 stainless steel			
	Cable entry fitting	304 stainless steel			
	Cable	Polyurethane			
Protection	Type	welded			
	IP Rating	IP 68			
	NEMA Rating	NEMA 6/6P			
Load Limit	Safe	%R.C. 150			
	Ultimate	%R.C. 300			
Safe Side Load <sup>5)</sup>	%R.C.	100			
Safe Dynamic Load	%R.C.	70			
Fatigue Life	cycles @R.C.	>1,000,000			
Direction of Loading		beam			
Deflection @ R.C., nominal	mm (in)	0.91 (0.036)		1.65(0.065)	
Weight, nominal	kg (lb)	7.0 (15.5)		11.5 (25.5)	
Cable Length	m (ft)	4.5, 9.1, 18.2 (15, 30, 60)			
Barometric Pressure Effect on Zero Load Output	kg/kPa (lb/in.Hg)	none			
Mounting Screw	Grade	8.8 (Grade 5)			
	Size / thread	mm (in)	M24 (1-8 UNC)	M30 (1-1/4-7 UNC)	
	Engaged Length	mm (in)	-		
	Torque, nominal	N.m (ft-lb)	600 (475)	1200 (1000)	

<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

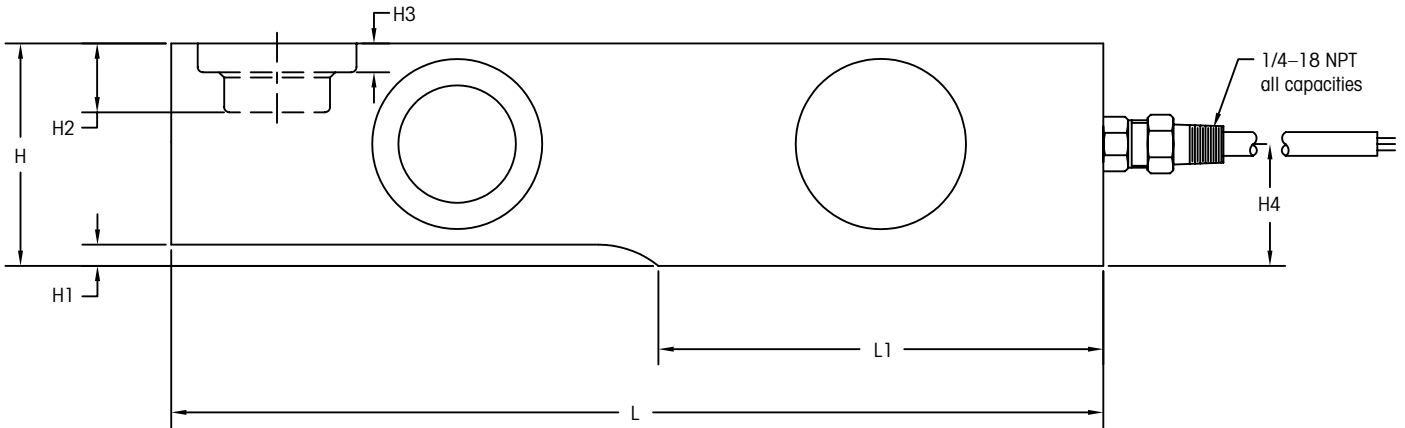
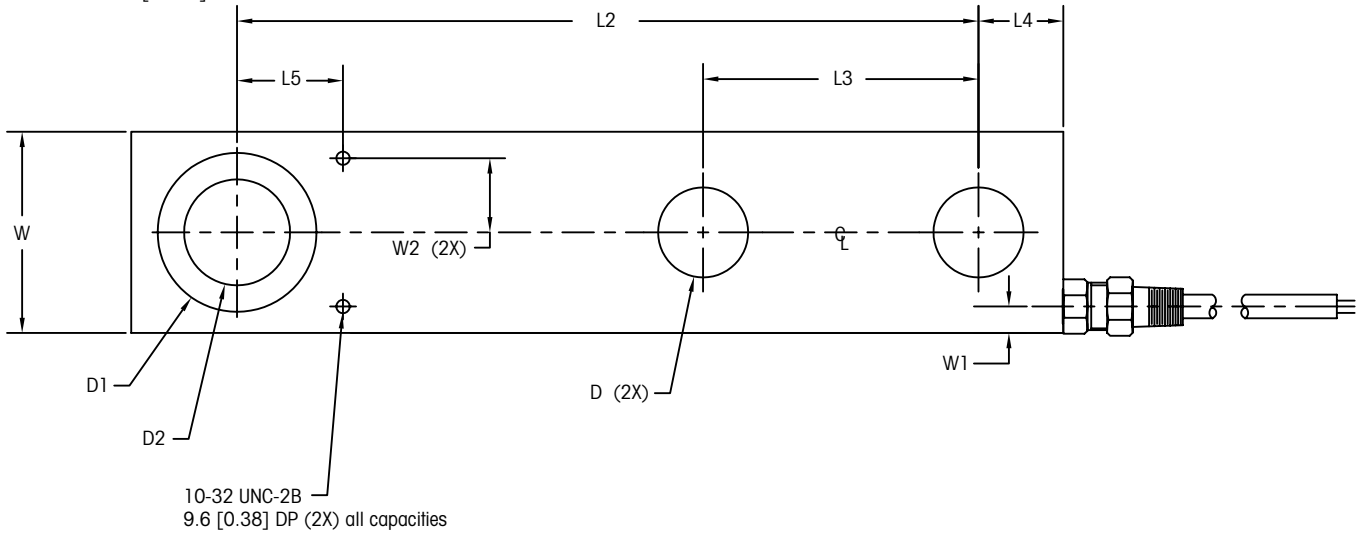
<sup>4)</sup> See certificate for complete information.

<sup>5)</sup> Protect mounting screws from shear

# 0743 Load Cell Dimensional Drawings

Capacity	Dimensions and Locations																
	D (2x)	D1	D2	H	H1	H2	H3	H4	L	L1	L2	L3	L4	L5	W	W1	W2 (2x)
9072-13608 kg [20,000-30,000 lb]	27.0 [1.06]	47.6 [1.88]	31.8 [1.25]	66.7 [2.36]	6.4 [0.25]	20.6 [0.81]	8.6 [0.34]	36.5 [1.44]	279.4 [11.00]	133.4 [5.25]	222.3 [8.75]	82.6 [3.25]	25.4 [1.00]	31.8 [1.25]	60.4 [2.38]	7.9 [0.31]	22.2 [0.88]
20412 kg [45,000 lb]	33.3 [1.31]	54.0 [2.13]	38.1 [1.50]	82.6 [3.25]	12.7 [0.50]	24.2 [0.95]	9.5 [0.38]	47.6 [1.87]	317.5 [12.50]	152.4 [6.00]	247.7 [9.75]	88.9 [3.50]	31.8 [1.25]	34.9 [1.38]	69.9 [2.75]	10.9 [0.43]	25.4 [1.00]

Notes:  
Dimensions are in mm [inches]



## 0743 Load Cell Order Information

Description	Item No.
Load cell, model no. 0743, 9t (20klb) 4.5m (15ft) cable	71208065
<b>Load cell, model no. 0743, 9t (20klb) 9.1m (30ft) cable</b>	<b>71208066</b>
Load cell, model no. 0743, 9t (20klb) 18.2m (60ft) cable	71208067
Load cell, model no. 0743, 13.6t (20klb) 4.5m (15ft) cable	71208068
<b>Load cell, model no. 0743, 13.6t (20klb) 9.1m (30ft) cable</b>	<b>71208069</b>
Load cell, model no. 0743, 13.6t (20klb) 18.2m (60ft) cable	71208070
Load cell, model no. 0743, 20.4t (20klb) 4.5m (15ft) cable	71208071
<b>Load cell, model no. 0743, 20.4t (20klb) 9.1m (30ft) cable</b>	<b>71208072</b>
Load cell, model no. 0743, 20.4t (20klb) 18.2m (60ft) cable	71208073

**Bolded entries are stocked**

## 0743 Load Cell Cable Colours

Colour	Function
Green	+ Excitation
Black	- Excitation
White	+ Signal
Red	- Signal
Yellow	Shield

### Full Connectivity

Our sensors and instruments are professional communicators. METTLER TOLEDO supplies you with various data communication interfaces that allow you to communicate with your PLCs, MES or ERP systems.



### Global Approvals

The 0743 is provided with all listed approvals. No need to think about options and additional charges. Simplifies the conduct of global business, order processing and service-part stocking.



## 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.