# Accurate, Reliable Weighing for Dynamic Loading Applications





### **Conveyors and Mixers**

CENTERLIGN weigh modules are designed for dynamic-loading applications such as conveyors, mixers, and blenders. The top mounting plate checks against the load cell when horizontal forces are applied, and the rocker pin restores the top plate to its ideal position to provide accurate, repeatable weighing.

### **Load Cells**

Model 0745A beam load cells are stainless steel and hermetically sealed with IP68 protection. They are ideal for harsh industrial environments such as food or pharmaceutical production facilities. The "blind" loadintroduction hole provides optimum loading conditions for accurate weighing.





### **Bumper Stops**

Each CENTERLIGN weigh module has three adjustable bumper stops to check the system horizontally. When the "live" stops touch the "live end" of the load cell, they do not cause a live-to-dead shunt of the load and do not interfere with weighing accuracy.



## Self-Restoring Rocker Pin

The rocker pin introduces loads to the load cell, providing accurate weighing even when there are strong horizontal forces. As the top plate moves laterally away from its ideal position, the rocker pin provides a proportional restoring force to push the top plate back to its ideal position.

## 0958 CENTERLIGN™ Weigh Module

CENTERLIGN weigh modules enable you to convert a conveyor, mixer, or other dynamic-loading system into a weighing scale. Regardless of the application, these easy-to-install weigh modules deliver accurate and reliable performance.

- Capacity range: 250 10,000 lb (110 4400 kg).
- Rocker-pin load introduction for best accuracy.
- Hermetically sealed stainless steel load cells.
- Painted or stainless steel mounting hardware.
- Locating tool provided for easy installation.
- Global approvals standard on load cells.



# **0958 Weigh Module Specifications**

Weigh Module Parameter		Unit of Measure	Specification								
Model No.			0958 CENTERLIGN								
Rated Capacity		kg (lb)	110 (250)	220 (500)	550 (1250)	1100 (2500)	2200 (5000)	4400 (10,000)			
Load Limit Safa9	Carbon Steel	kN (lb)	1.7 (375)	3.3 (750)	8.3 (1875)	16.7 (3750)	29.8 (6700)	59.2 (13,300)			
Louu Liitii, Sule	Stainless Steel	kN (lb)	1.7 (375)	3.3 (750)	8.3 (1875)	16.7 (3750)	23 (5160)	52 (11,700)			
Restoring Force <sup>5</sup>		%A.L./mm (/in) <sup>3</sup>	4.4 (111) 5								
Max. Horizontal Force, Transverse <sup>6</sup>		kN (lb)	1.1 (250)	2.2 (500)	5.6 (1250)	6.7 (1500)	6.7 (1500)	6.7 (1500)			
Carbon Steel	Longitudinal <sup>7</sup>	kN (lb)	1.1 (250)	2.2 (500)	5.6 (1250)	11.1 (2500)	17.8 (4000)	20 (4500)			
Max. Horizontal Force,	Transverse <sup>6</sup>	kN (lb)	1.1 (250)	2.2 (500)	5.6 (1250)	5.6 (1250)	5.6 (1250)	5.6 (1250)			
Stainless Steel	Longitudinal <sup>7</sup>	kN (lb)	1.1 (250)	2.2 (500)	5.6 (1250)	11.1 (2500)	14.8 (3333)	16.7 (3750)			
Max Ton Plate Travel	Transverse	± mm (in)	2.5 (0.10)					3.2 (0.12)			
	Longitudinal	± mm (in)	2.5 (0.10) 3.2 (0.1								
Max. Upliff Force <sup>8</sup>		kN (lb)	0 (0)								
Weight (including load cell)	, nominal	kg (lb)	7.2 (16) 7.6 (17) 17 (37)								
Material			carbon steel & 304 stainless steel								
Load Coll Parameter		Unit of Measure	Specification								
Model No			Specification	07/5A							
			110	220	550	1100	2200	4400			
Rated Capacity (R.C.)		kg (lb)	(250)	(500)	(1250)	(2500)	(5000)	(10,000)			
Rated Output		mV/V @ R.Ckg	0.970 ± 0.002	1.940 ± 0.002							
		mV/V @ R.CIb	1.000 ± 0.002 2.000 ± 0.002								
Combined Error <sup>1</sup>		%R.C.	<u>≤ 0.03</u> ≤ 0.018 <sup>2</sup>								
Temperature Effect on	Min. Dead Load Output	%R.C./°C (/°F)	≤ 0.0027 (0.0015) ≤ 0.002 (0.001)								
	Sensitivity	%A.L./°C (/°F)	≤ 0.0009 (0.0005) <sup>2</sup>								
	Class		- C3								
OIML/European Approval <sup>4</sup>	nmax		-	3000							
	Vmin	kg (lb)	-	0.032 (0.070)	032 (0.070) 0.079 (0.175) 0.159 (0.35) 0.3		0.317 (0.70)	0.635 (1.40)			
	Class		-								
NTEP Approval <sup>4</sup>	nmax		-	5000							
	Vmin	kg (lb)	-	0.032 (0.070) 0.079 (0.175) 0.159 (0.35) 0.317 (0.70)				0.635 (1.40)			
ATEX Approval <sup>4</sup>			II 2 G Ex ia IIC T4   II 2 D Ex tD A21 IP6X T100°C								
	Rating		II 3 G Ex nA II T4								
			II 3 G Ex nL IIC T4								
			II 3 D Ex tD A22 IP6X T100°C								
			304 stainless steel weigh module hardware suitable for hazardous areas								
Factory Mutual Approval <sup>4</sup>	Rating		IS/I,II,II/1/ABCDEFG/T4 ; NI/I/2/ABCD/T6 ; S/II,II/2/FG/T6								
Excitation Voltage	Recommended	V AC/DC	5~15								
-	Maximum	V AC/DC	20								
Terminal Resistance	Excitation	Ω	<u>≥ 385</u>								
Madadat		Ω	350 ± 2								
Maieriai	Spring Element		Stainless steel								
	IVPe		Welded								
PIOIECIION		1									
		W D C									
	JUIC	/015.0.	1		15						



Load Limit

<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.

300

 $^{3}$  A.L. = Applied Load.

%R.C.

4 See certificate for complete information.

<sup>5</sup> % of Applied Load (A.L.) per mm (in) displacement of the top plate (transverse and longitudinal).



<sup>7</sup> Maximum horizontal force that can be applied to the top plate in a direction hardware to the longitudinal axis of the load cell towards

the nose of the load cell only (one direction only).

<sup>8</sup> Maximum vertical uplift force that can be applied to the top plate.

<sup>9</sup> Maximum vertical downward force that can be applied to the top plate.

APPROVED

Ultimate

Produced in a facility that is

# 0958 Weigh Module Dimensions

# **0958 Mounting Arrangements**







<sup>1</sup> Dimensions are in mm (inches).

<sup>2</sup> Reduce the number of washers under the head to increase gap to maximum dimension "G Max".

	Dimensions and Locations								Top Plate Travel			
Capacity	D	н	ні	H2	НЗ	L	L1	L2	L3	L4	G (as shipped)	G Max <sup>2</sup>
110-1100 kg	11.2	104.4	47.7	19.0	19.0	177.8	114.3	12.7	88.9	152.4	1.6	2.5
(250-2500 lb)	(0.44)	(4.11)	(1.88)	(0.75)	(0.75)	(7.00)	(4.50)	(0.50)	(3.50)	(6.00)	(0.06)	(0.10)
2200 kg	11.2	105.2	51.3	19.0	19.0	177.8	114.3	12.7	88.9	152.4	1.6	2.5
(5000 lb)	(0.44)	(4.14)	(2.02)	(0.75)	(0.75)	(7.00)	(4.50)	(0.50)	(3.50)	(6.00)	(0.06)	(0.10)
4400 kg	17.5	136.6	67.1	25.4	31.8	235.4	152.4	25.4	101.6	184.1	1.6	3.2
(10,000 lb)	(0.69)	(5.38)	(2.64)	(1.00)	(1.25)	(9.25)	(6.00)	(1.00)	(4.00)	(7.25)	(0.06)	(0.12)

## **0958 Cable Colors**

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

## **0958 CENTERLIGN Weigh Module Ordering Information**

Contact your local sales representative for ordering numbers, pricing, and availability.



#### Weigh-Connect-Control-Comply

METTLER TOLEDO embeds intelligence into weighing applications. Our industry leading scale electronics enable users to integrate their gravimetric measurement with applications running on PCs, PLCs, or DCS systems. Our products are designed specifically for industries subject to regulatory controls, such as pharmaceutical, chemical, food and beverage, and have been confirmed by multiple global agency standards including UL, CE, NTEP, and OIML.

# www.mt.com/weighmodule

# **Global Approvals**

Model 0745A load cells have global certifications for metrological performance and hazardous area applications. There is no need for options or additional charges.

## **METTLER TOLEDO** Service

Our extensive service network is among the best in the world and ensures maximum availability and service life of your product.

#### Mettler-Toledo, LLC

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