

# ***CSP-M COMPRESSION LOAD CELL***



## ***DESCRIPTION:***

The CSP-M is a multi-column, low profile, stainless steel compression load cell. The unique four column design offers excellent insensitivity to eccentric loads whilst maintaining accuracy.

This product is, without doubt, one of the most successful compression cell ever produced and is suitable for use in road and rail weighbridges and process weighing applications.

The fully leak-tested welded construction, advanced cable entry and built-in surge protection tubes ensures that this product can be used successfully in harsh environments.

This product meets the stringent Weights and Measures requirements throughout Europe.

## ***FEATURES:***

- # Low profile, multi column stainless steel construction
- # Hermetically sealed, IP66/68
- # Certified to OIML R-60, **4000d**
- # Multi-interval and multi-range versions available
- # Built-in surge protection tubes (GDTs)
- # EEx(i) and EEx(d) versions are available for use in hazardous areas
- # Current calibration output (SC version) ensures easy and accurate parallel connection of multiple load cells
- # **CAPACITIES: 106100 t**

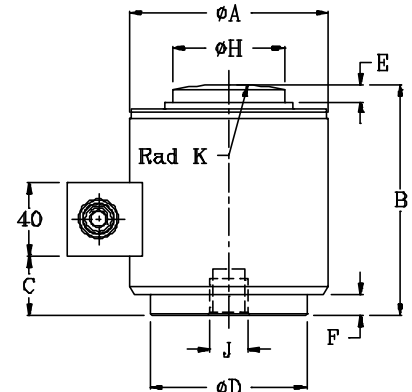
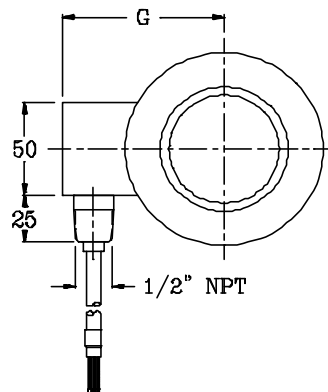
# CSP-M: SPECIFICATIONS

Standard Capacities (= E <sub>max</sub> )	t	10, 25, 40, 60, 100 <sup>2</sup>				
Accuracy Class According to OIML R-60			C2	C3	C3MI7.5 <sup>3</sup>	C4
Max. Number of Verification Intervals (n <sub>v</sub> )			2000	3000	3000	4000
Minimum Verification Interval (v <sub>min</sub> )			E <sub>max</sub> /10000	E <sub>max</sub> /12500	E <sub>max</sub> /12500	E <sub>max</sub> /12500
Minimum Utilisation	%		20	24	24	32
Minimum Verification Interval (v <sub>min</sub> ) - Type MR			--	E <sub>max</sub> /17500	E <sub>max</sub> /17500	E <sub>max</sub> /17500
Minimum Utilisation - Type MR	%		--	17	17	23
Minimum Dead Load Output Return - DR			--	--	2E <sub>max</sub> /7500	--
Accuracy According to Type Designation		CC	C2	C3	C3MI7.5	C4MR
Combined Error	%S	#" 0.0500	#" 0.0230	#" 0.0200	#" 0.0200	#" 0.0170
Non-Repeatability	%S	#" 0.0200	#" 0.0100	#" 0.0100	#" 0.0100	#" 0.0090
Minimum Dead Load Output Return <sup>1</sup>	%S	#" 0.0500	#" 0.0250	#" 0.0167	#" 0.0067	#" 0.0125
Creep Error (30 Minutes) <sup>1</sup>	%S	#" 0.0600	#" 0.0245	#" 0.0245	#" 0.0245	#" 0.0184
Creep Error (20-30 Minutes) <sup>1</sup>	%S	#" 0.0200	#" 0.0053	#" 0.0053	#" 0.0053	#" 0.0039
Temp. Effect on Min. Dead Load Output	%S/5EC	#" 0.0250	#" 0.0070	#" 0.0056	#" 0.0056	#" 0.0056
Temp. Effect on MDLO - Type MR	%S/5EC	--	--	#" 0.0040	#" 0.0040	#" 0.0040
Temp. Effect on Sensitivity	%S/5EC	#" 0.0250	#" 0.0060	#" 0.0050	#" 0.0050	#" 0.0035
Minimum Deadload	%E <sub>max</sub>	0				
Maximum Safe Overload	%E <sub>max</sub>	150				
Ultimate Overload	%E <sub>max</sub>	400				
Maximum Safe Sideload	%E <sub>max</sub>	10				
Deflection at E <sub>max</sub>	mm	0.36 max.				
Excitation Voltage	V	5...20				
Maximum Excitation Voltage	V	25				
Rated Output (= S)	mV/V	2				
Tolerance on Rated Output	mV/V	" 0.02				
Zero Balance	%S	#" 1.0				
Input Resistance	Ω	450 " 4.5				
Output Resistance	Ω	480 " 4.8				
Insulation Resistance	MΩ	≥ 5000				
Compensated Temperature Range	EC	-10...+40				
Operating Temperature Range	EC	-40...+80				
Storage Temperature Range	EC	-40...+90				
Element Material (DIN)		Stainless Steel 1.4542				
Sealing (DIN 40.050)		IP66/IP68				
SC-Version (Current Calibration)		Standard				
EEx(d) Certification		EEx d IIC T6 (40/60t only)				
EEx(i) Certification		EEx ib IIC T6 / EEx ib IIC T4				

- 1 Applies for the temperature range -10 to +40 EC  
 2 Available only in CC quality  
 3 Maximum application range 0.8\*E<sub>max</sub>

"SC-Version" The "Rated Output" and the "Output Resistance" are balanced in such a way, that the output current is calibrated within 0.05% to a reference value. This allows an easy parallel connection of load cells. Accuracy classes C2, C3 and C4 are in agreement with the OIML recommendation R-60. **Accuracy class C1 is also available.** The correct mounting of the load cells is essential to ensure optimum performance. Cable length 20m (10m for 10t version). Cable screen is not connected to load cell body. Performance may be affected if load cell cables are shortened. Further information is available on request.

**REVERE TRANSDUCERS EUROPE B.V.**



**WEB: [www.ntt.dk](http://www.ntt.dk)**

**Attention:**  
 Dimensions: mm.  
 All dimension tolerances according to DIN 7168; middle accuracy unless otherwise specified

**Wiring:**  
 Excitation + Green  
 Excitation - Black  
 Output + White  
 Output - Red  
 Shield Orange

Capacity	10,25	40,60	100
A	73.0	105.0	152.4
B	82.5	127.0	184.2
C	12.0	34.0	72.3
D	58.0	82.5	123.8
E	6.5	8.0	23.6
F	1.8	11.0	21.8
G	64.0	87.0	108.2
H	31.8	58.7	79.2
J	M12x1.75 (11 Deep)	M20x2.5 (20 Deep)	
K Rad	152.0	152.0	432.0

All specifications subject to change without notice

**REGIONAL OFFICE DK**  
 Nordisk Transducer Teknik  
 Als Odde DK-9560 Hadsund Denmark  
 e-mail: [kd@ntt.dk](mailto:kd@ntt.dk)  
 Tel: (+ 45) 98581444  
 Fax: (+ 45) 98581866