

DSC SMART COMPRESSION LOAD CELL



DESCRIPTION:

The DSC, Digital Single Column, is a stainless steel compression load cell with a digital output.

This digital output enables the user to communicate with each DSC independently of the others in the system, thus offering advantages in system setup, system control, corner correction, fault finding and load cell replacement.

This product is suitable for use in road and rail weighbridges and process weighing applications.

The welded construction and built-in surge protection ensure that this product can be used successfully in harsh environments.

FEATURES:

- Digital output via RS485 or RS422 interface.
- Self-aligning, stainless steel single column.
- Hermetically sealed, IP66 and IP68
- Certified to OIML R60, **4000d**
- Internal diagnostics
- Internal lightning protection
- Maximum transmission distance 1200m
- **Capacities: 30, 40 and 50t²**

Revere  Transducers

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DSC: SPECIFICATIONS

Capacity	E_{max}	t	30, 40 ² , 50 ²		
Accuracy Class According to OIML R60			C3	C4	
Maximum Number of Verification Intervals	n_{ic}		3000	4000	
Minimum Verification Interval ($v_{min} = E_{max}/Y$)	v_{min}		$E_{max}/6000$	$E_{max}/8000$	
Minimum Verification Interval, Type MR	v_{min}		$E_{max}/15000$	$E_{max}/20000$	
Accuracy Class According to Type Designation ¹			CC	C3	C4
Combined Error		%S	$\leq \pm 0.050$	$\leq \pm 0.023$	$\leq \pm 0.018$
Hysteresis		%S	$\leq \pm 0.050$	$\leq \pm 0.017$	$\leq \pm 0.013$
Minimum Dead Load Output Return	MDLOR	%S	$\leq \pm 0.050$	$\leq \pm 0.017$	$\leq \pm 0.013$
Minimum Dead Load Output Return, Type MI7.5	MDLOR	%S _{nom}	$\leq \pm 0.067$	$\leq \pm 0.0067$	$\leq \pm 0.0067$
Non-Repeatability	E_R	%S	$\leq \pm 0.070$	$\leq \pm 0.035$	$\leq \pm 0.026$
Creep Error (30 Minutes)		%S	$\leq \pm 0.060$	$\leq \pm 0.025$	$\leq \pm 0.018$
Creep Error (20-30 Minutes)		%S	$\leq \pm 0.0200$	$\leq \pm 0.0053$	$\leq \pm 0.0039$
Temperature Effect on Minimum Dead Load Output	TC_o	%S _{nom} /5°C	$\leq \pm 0.0250$	$\leq \pm 0.0117$	$\leq \pm 0.0088$
Temperature Effect on Minimum Dead Load Output, Type MR	TC_o	%S _{nom} /5°C	$\leq \pm 0.0250$	$\leq \pm 0.0047$	$\leq \pm 0.0035$
Temperature Effect on Sensitivity	TC_s	%S/5°C	$\leq \pm 0.0250$	$\leq \pm 0.0088$	$\leq \pm 0.0065$
Minimum Dead Load	E_{min}	%E _{max}	0		
Safe Load Limit	E_{lim}	%E _{max}	150		
Ultimate Load	E_{ult}	%E _{max}	300		
Deflection at E_{max}		mm	0.50		
Excitation Voltage		V	12.5 ... 18.0		
Recommended Excitation Voltage		V	15		
Maximum Current Consumption		mA	80		
Start-up Current		mA	150		
Rated Output	S_{nom}	Counts	240.000 \pm 200		
Zero Balance		Counts	$\leq \pm 200$		
Insulation Resistance	R_{ins}	MΩ	≥ 5000		
Compensated Temperature Range	T_{cps}	°C	-10 ... +40		
Operating Temperature Range	T_{opr}	°C	-40 ... +80		
Storage Temperature Range	T_{strg}	°C	-50 ... +90		
Element Material			Stainless steel 1.4542		
Sealing (DIN 40.050 / EN 60.529)			IP66 and IP68		
Signal Update Per Second			25		
Baud Rate		Bits/s	9600		
Transmission Type			Asynchronous serial transmission		
Start Bits			1		
Data Bits			7		
Stop Bits			1		
Parity			Odd		
Maximum Transmission Cable Length		M	1200		
Data Transmission Interface			RS422 (4 communication wires) / RS485 (2 communication wires)		

- 1 The specified accuracies apply for the compensated temperature range.
- 2 Capacities 40 and 50t are being developed.

Correct mounting of the load cells is essential to ensure optimum performance. Shield is connected to the load cell body through a capacitor.
Further information is available on request.

Cable specifications:

Cable length 15m.

Excitation +	Green
Excitation -	Black
Rx +	Yellow
Rx -	Blue
Tx +	Red
Tx -	White
Shield	Transparent

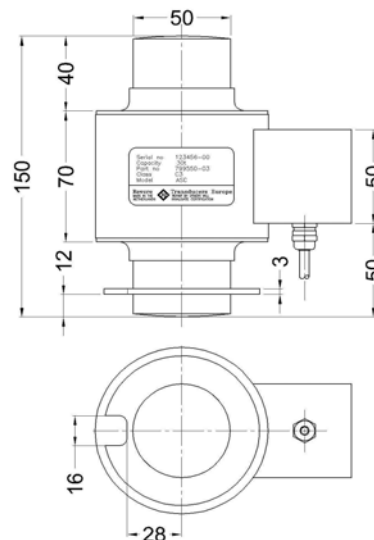
All dimension tolerances according to ISO 2768m, unless otherwise specified.

Also available:

Self Aligning Set ASC and DSC 30t

See for more information:

Assembly Guideline 02/3-110/01.



All specifications subject to change without notice.

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