

PRODUCT DATA SHEET

DBSL-XS Series • Pancake Load Cell

Compression • 5 t & 10 t • Alloy steel

OVERVIEW

PRODUCT • FEATURES • APPLICATIONS



FEATURES

- Low-profile pancake design for height-restricted installations
- Alloy steel, nickel-plated against corrosion
- High accuracy and long-term stability
- M24 × 1.5 loading thread • eight-hole mounting flange

TYPICAL APPLICATION

Replacement load cell for OEM materials testing machines

AVAILABLE MODELS

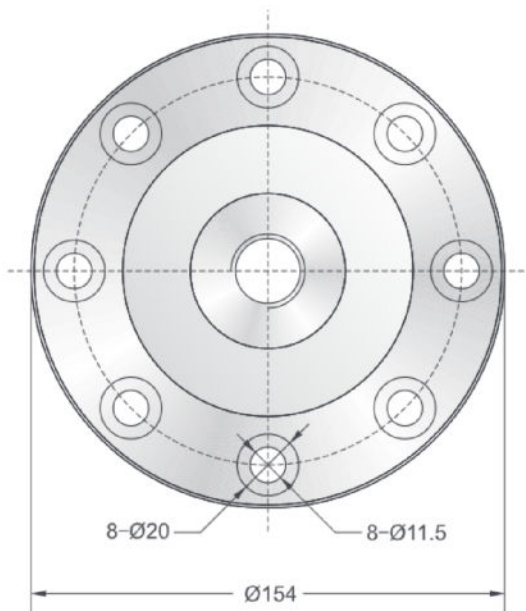
DBSL-XS-5T • 5 t (5,000 kg / 11 Klb / 50 kN)

DBSL-XS-10T • 10 t (10,000 kg / 22 Klb / 100 kN)

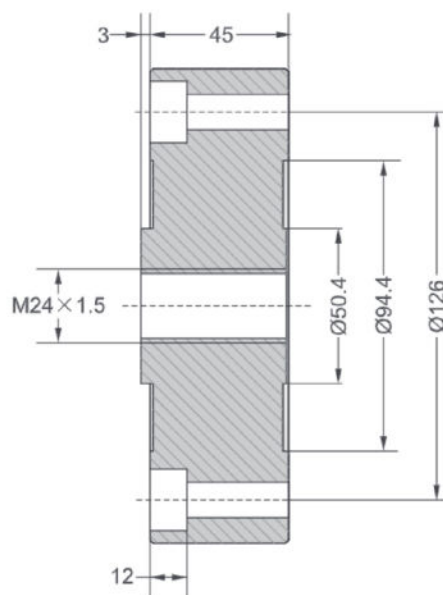
DIMENSIONS

MILLIMETERS [INCHES]

TOP VIEW



SIDE VIEW



UNIT	OVERALL	HEIGHT	BOLT CIRCLE	LOADING BOSS	RELIEF	BOLT HOLES 8×	C'BORE 8×	FACE STEP	BASE STEP	THREAD
MM	Ø154	45	Ø126	Ø50.4	Ø94.4	Ø11.5	Ø20	3	12	M24 × 1.5
IN	6.06	1.77	4.96	1.98	3.72	0.45	0.79	0.12	0.47	

SPECIFICATIONS

ALL CAPACITIES

PERFORMANCE

Rated Output (R.O.)	3.0 mV/V $\pm 0.25\%$
Zero Balance	$\pm 1.0\%$ of R.O.
Nonlinearity	$\pm 0.03\%$ of R.O.
Hysteresis	$\pm 0.03\%$ of R.O.
Repeatability	$\pm 0.03\%$ of R.O.
Creep (after 30 minutes)	$\pm 0.03\%$ of R.O.

TEMPERATURE

Compensated Range	-10 to +40 °C
Safe Range	-10 to +70 °C
Effect on Output	$\leq 0.002\%$ of applied / °C
Effect on Zero	$\leq 0.002\%$ of R.O. / °C

ELECTRICAL

Rated Excitation	10 V DC / AC
Maximum Excitation	15 V DC / AC
Input Impedance	387 $\pm$ 20 Ω
Output Impedance	350 $\pm$ 5 Ω
Insulation Resistance	$\geq 5,000$ M Ω @ 50 V DC
Cable Length	6 m (20 ft)

MECHANICAL

Material	Alloy Steel, Nickel Plated
Safe Overload	150% of R.O.
Element Type	Bonded Foil Strain Gauge
Direction of Loading	Compression

WIRING

4-CONDUCTOR SHIELDED CABLE · 6 M

CABLE COLOR CODE		
	Red	+ Excitation
	Black	- Excitation
	Green	+ Signal
	White	- Signal
	Shield / Drain Wire	Ground

ORDERING & NOTES

HOW TO SPECIFY

How to order. Specify the model number corresponding to the required capacity. A 10 t load cell is ordered as DBSL-XS-10T. OEM customers are welcome to request customizations.

Installation. Mount the cell on a flat, machined surface using all eight Ø11.5 mm holes. Load must be applied axially through the central M24 × 1.5 thread; avoid side, eccentric and off-center loading.

Shield / Drain Wire. Bond the drain wire to instrument ground at one end only to avoid ground loops. Do not cut or splice the cable; changing its length alters calibration.