

PRODUCT DATA SHEET

DBSL-XS Series • Pancake Load Cell

Compression • 20 t & 30 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
- M40 × 1.5 loading thread • eight-hole mounting flange

TYPICAL APPLICATION

Replacement load cell for OEM materials testing machines

AVAILABLE MODELS

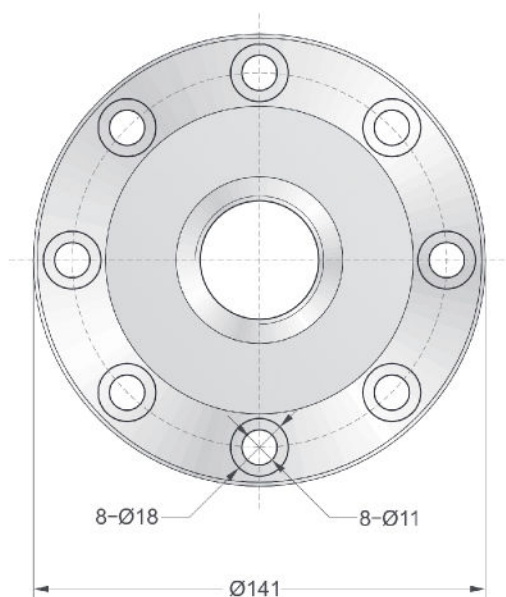
DBSL-XS-20T • 20 t (20,000 kg / 44 Klb / 200 kN)

DBSL-XS-30T • 30 t (30,000 kg / 66 Klb / 300 kN)

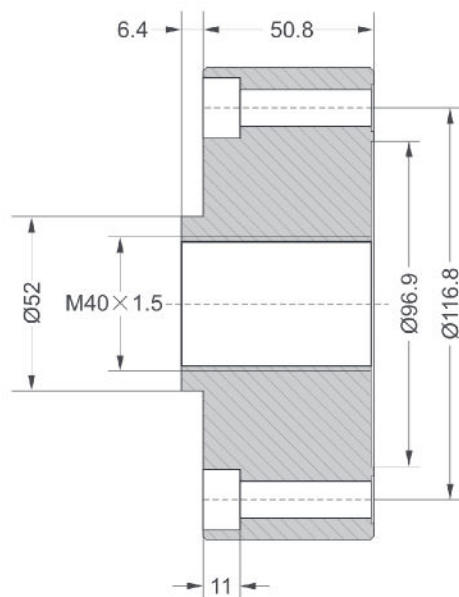
DIMENSIONS

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	Ø141	50.8	Ø116.8	Ø52	Ø96.9	Ø11	Ø18	6.4	11	M40 × 1.5
IN	5.55	2.00	4.60	2.05	3.81	0.43	0.71	0.25	0.43	

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	775 $\pm$ 20 Ω
Output Impedance	700 $\pm$ 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 30 t load cell is ordered as DBSL-XS-30T. OEM customers are welcome to request customizations.

Installation. Mount the cell on a flat, machined surface using all eight Ø11 mm holes. Load must be applied axially through the central M40 × 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.