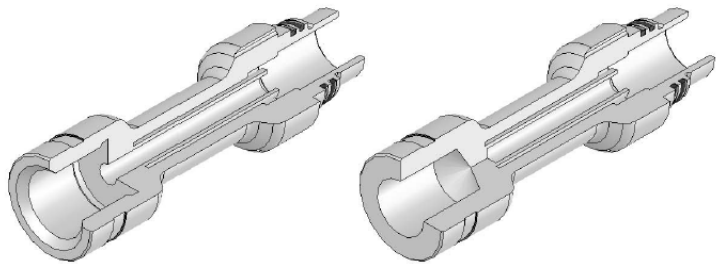
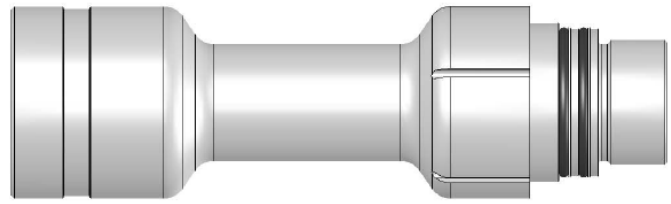


Model DTD Downhole Tension Device Load Cell

Why the Interface Model DTD Downhole Tension Device Load Cell is the best in class:

- Protects against the loss of tooling during downhole insertion and retraction
- Pressure, temperature and force compensated at 5 miles deep (500°F / 30 kpsi)
- Accuracy to $\pm 0.5\%$ F.S.
- Through hole or dead ended design
- No delay for cable stretch as compared to load cell mounted above ground
- Replaces a "wet" design which has a short life expectancy and higher maintenance



SPECIFICATIONS

Parameter	Units			Comb
Force Capacity	Klbf		2.5 to 30	
Rated Output (RO)	mV/V		1.00 \pm 0.15	
Operating Pressure Range	psig		0 to 30,000	
Nonlinearity	% FS	Max	± 0.25 at any constant compensated temperature	X
Hysteresis	% FS	Max	± 0.25 at any constant compensated temperature	X
Temperature Range				
Operating	°F (°C)		-65 to 400 (-54 to 204)	
Compensated	°F (°C)		-65 to 400 (-54 to 204)	
Zero Balance (offset)	mV/V		0 \pm 0.065	
Temperature Effect on Zero*	% RO/°F (%RO/°C)	Max	0 \pm 0.006 (0 \pm 0.011)	X
-65 to 400°F (-54 to 204°C)			0 \pm 0.006 (0 \pm 0.011)	
Temperature Effect on Output*	%/°F (%/°C)		0 \pm 0.003 (0 \pm 0.0055)	X
Pressure Effect on Zero*	%RO / 20,000 psig	Max	1.5	X
@Room temperature			1.5	
Creep due to pressure @ 20,000 psig, 30 minutes	%RO	Max	0 \pm 1.5, over compensated temperature range	
Combination of parameters checked in Comb column over compensated temperature range and 0 to 20,000 psig	%RO	Max	3	
Input Resistance	ohm		350 \pm 10	
Output Resistance	ohm		350 \pm 5	
Insulation Resistance	Meqohm	Min	1000 @ 50 VDC	
Overload Ratings (with 30,000 psig pressure):				
Safe, axial load	Klbf, with 30,000 psig	Max		
Ultimate, axial load	Klbf	Max		
Deflection at capacity	inch	Nom	0.002	
Natural Frequency	Hz	Nom		
Excitation, nominal	VDC or VAC	Nom	10	
Excitation, maximum	VDC or VAC	Max	15	
Weight (without cable)	lb	Nom		
Flexure Material			High Strength Heat Treated Stainless Steel	

*As measured by the chord slope method.