

## 1000 FATIGUE RATED LOAD CELL (US & METRIC)

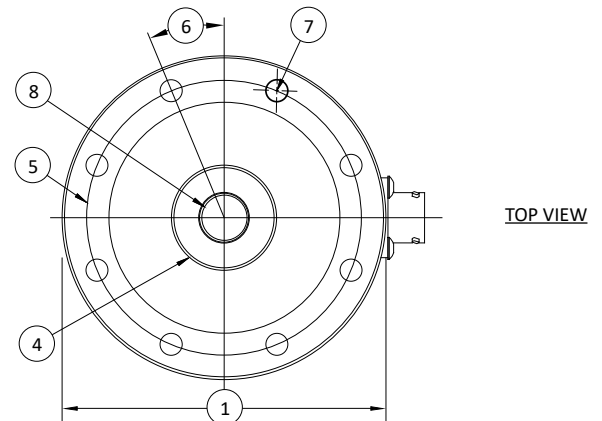
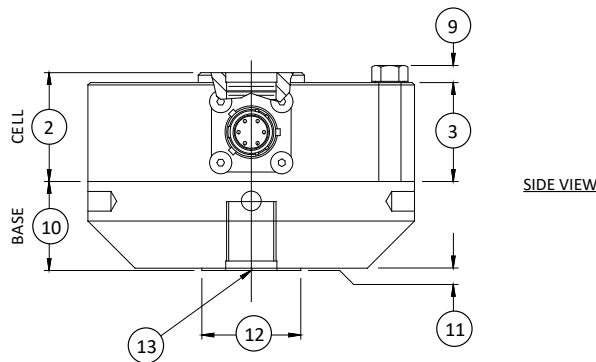
### FEATURES & BENEFITS

- Capacities from 250 to 50K lbf (1.25 to 225 kN)
- Proprietary Interface temperature compensated strain gages
- 100 million fully reversed cycles
- Performance to 0.03%
- Eccentric load compensated
- Low deflection
- 0.0008%/°F (0.0015%/°C) temperature effect on output
- Barometric compensation
- Shunt calibration
- Tension and compression

### STANDARD CONFIGURATION



**Model 1010ACK-2.5K (shown)**



### DIMENSIONS

See Drawing	MODEL					
	1010		1020		1032	
	CAPACITY					
	U.S. (lbf)	Metric (kN)	U.S. (lbf)	Metric (kN)	U.S. (lbf)	Metric (kN)
	250, 500, 1K, 2.5K, 5K	1.25, 2.5, 5, 12.5, 25	12.5, 25K	50, 125	50K	225
	in	mm	in	mm	in	mm
(1)	Ø4.13	Ø104.8	Ø6.06	Ø153.9	Ø8.00	Ø203.2
(2)	1.38	34.9	1.75	44.5	2.50	63.5
(3)	1.25	31.7	1.63	41.4	2.25	57.2
(4)	Ø1.34	Ø34.0	Ø2.65	Ø67.3	Ø3.76	Ø95.2
(5)	Ø3.50	Ø88.9	Ø5.13	Ø130.3	Ø6.50	Ø165.1
(6)	22.5°	22.5°	15.0°	15.0°	11.25°	11.25°
(7)	Ø0.28	Ø7.1	Ø0.41	Ø10.4	Ø0.53	Ø13.5
	8 places		12 places		16 places	
(8)	¼-18 UNF-3B ↓ 1.12	M16x2-4H ↓ 28.4	1 ¼-12 UNF-3B ↓ 1.40	M33x2-4H ↓ 35.6	1 ¼-12 UNF-3B ↓ 2.15	M42x2-4H ↓ 54.6
(9)	0.20	5.1	0.30	7.6	0.40	10.2
(10)	1.13	28.6	1.75	44.5	2.00	50.8
(11)	0.03	0.8	0.03	0.8	0.03	0.8
(12)	Ø1.25	Ø31.8	Ø2.25	Ø57.2	Ø3.00	Ø76.2
(13)	¼-18 UNF-3B ↓ 0.87	M16x2-4H ↓ 22.1	1 ¼-12 UNF-3B ↓ 1.40	M33x2-4H ↓ 35.6	1 ¼-12 UNF-3B ↓ 1.75	M42x2-4H ↓ 44.5

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### SPECIFICATIONS

PARAMETERS		MODEL			
		1010	1010	1020	1032
		CAPACITY			
Measuring Range	U.S. (lbf)	250, 500, 1K	2.5K, 5K	12.5K, 25K	50K
	Metric (kN)	1.25, 2.5, 5	12.5, 25	50, 125	225
<b>ACCURACY - (MAX ERROR)</b>					
Static Error Band – %FS		±0.03	±0.04	±0.04	±0.05
Nonlinearity – %FS		±0.04	±0.04	±0.04	±0.05
Hysteresis – %FS		±0.03	±0.04	±0.05	±0.05
Non-repeatability – %RO		±0.02	±0.02	±0.02	±0.02
Creep, in 20 min – %		±0.025	±0.025	±0.025	±0.025
Side Load Sensitivity – %		±0.1	±0.1	±0.1	±0.1
Eccentric Load Sensitivity – % / in		±0.1	±0.1	±0.1	±0.1
<b>TEMPERATURE</b>					
Compensated Range	°F	+15 to +115	+15 to +115	+15 to +115	+15 to +115
	°C	-10 to +45	-10 to +45	-10 to +45	-10 to +45
Operating Range	°F	-65 to +200	-65 to +200	-65 to +200	-65 to +200
	°C	-55 to +90	-55 to +90	-55 to +90	-55 to +90
Effect on Zero – %RO MAX	°F	±0.0008	±0.0008	±0.0008	±0.0008
	°C	±0.0015	±0.0015	±0.0015	±0.0015
Effect on Output – %RO MAX	°F	±0.0008	±0.0008	±0.0008	±0.0008
	°C	±0.0015	±0.0015	±0.0015	±0.0015
<b>ELECTRICAL</b>					
Rated Output – mV/V (Nominal)		1.0	2.0	2.0	2.0
Excitation Voltage – VDC MAX		20	20	20	20
Bridge Resistance – Ohm (Nominal)		350	350	350	350
Zero Balance – %RO		±1.0	±1.0	±1.0	±1.0
Insulation Resistance – Megohm		5000	5000	5000	5000
<b>MECHANICAL</b>					
Safe Overload – %CAP		±300	±300	±300	±300
Deflection @ RO	in	0.0005	0.001	0.001	0.002
	mm	0.013	0.025	0.025	0.050
Optional Base – P/N (Metric)		B101 (M)	B102 (M)	B103 (M)	B112 (M)
Natural Frequency – kHz		5.0, 6.9, 9.8	6.6, 9.4	6.5, 7.0	5.8
Weight	lbs	1.5	3.3	9.5	26
	kg	0.7	1.5	4.3	12
Calibration		Tension & Compression			
Material		Aluminum		Alloy Steel	

### OPTIONS

- Base (recommended)
- Connector protection
- Standardized output
- Transducer Electronic Data Sheet (TEDS)
- Custom calibration
- Multiple bridge
- Special threads
- Dual diaphragm
- Special temperature range
- Cable length
- Add connector to cable

### CONNECTOR OPTIONS

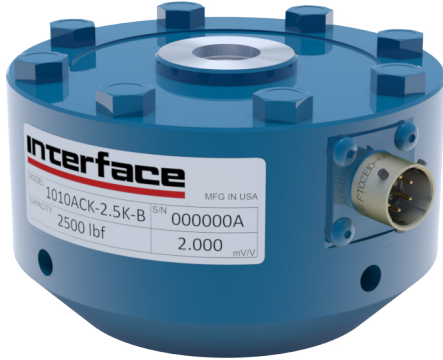
- Integral cable – 10 ft (3 m)
- PT02E-10-6P bayonet connector
- PC04E-10-6P screw-type connector

### ACCESSORIES

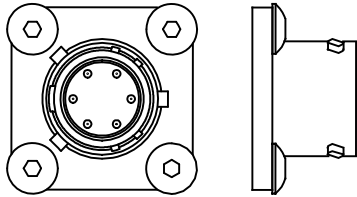
- Mating connector
- Mating cable
- Instrumentation
- Loading hardware

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### BAYONET CONNECTOR



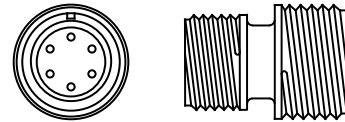
Model 1010ACK-2.5K-B (Shown)



### SCREW TYPE CONNECTOR



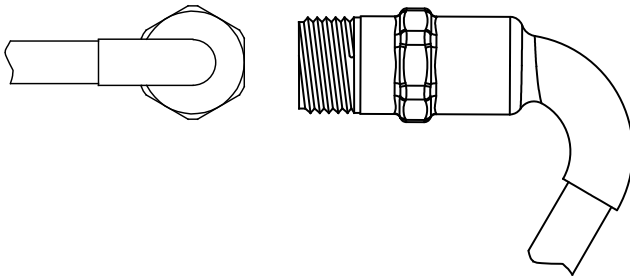
Model 1010AF-2.5K-B (Shown)



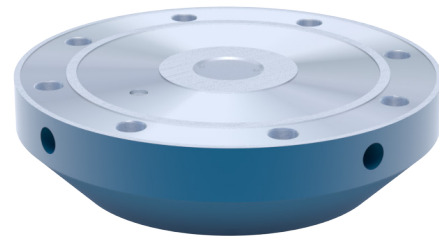
### INTEGRAL 10 FT. CABLE CONNECTOR



Model 1010AJ-2.5K-B (Shown)



### BASE



Model B1XX-1 (Shown)