

# 1200 STANDARD LOAD CELL (U.S. & METRIC)

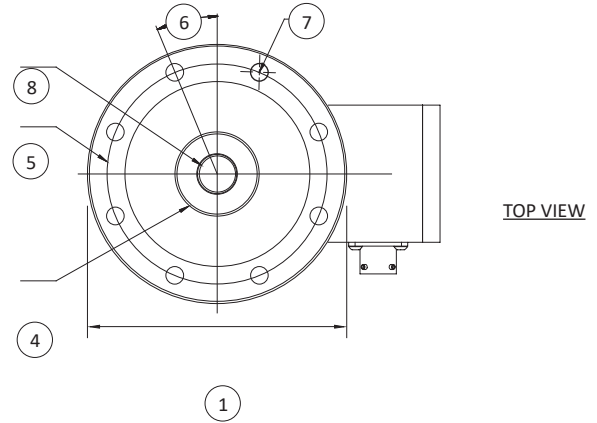
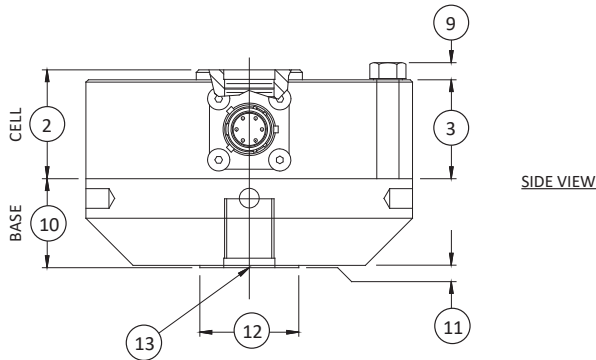
## FEATURES & BENEFITS

- Capacities from 300 to 100K lbf (1.5 to 450 kN)
- Proprietary Interface temperature compensated strain gages
- Performance to 0.04%
- High output – to 4 mV/V
- Eccentric load compensated
- 0.0008%/°F (0.0015%/°C) temp. effect on output
- Low deflection
- Shunt calibration
- Barometric compensation
- Tension and compression
- Compact size

## STANDARD CONFIGURATION



Model 1220ACK-50K (Shown)



## DIMENSIONS

See Drawing	MODEL					
	1210		1220		1232	
	CAPACITY					
	U.S. (lbf)	Metric (kN)	U.S. (lbf)	Metric (kN)	U.S. (lbf)	Metric (kN)
	300, 500, 1K, 2K, 5K, 10K,	1.5, 2.5, 5, 10, 25, 50	25K, 50K	100, 250	100K	450
	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)	⅝-18 UNF-3B ↓ 1.12	M16 x 2-4H ↓ 28.4	1 ¼-12 UNF-3B ↓ 1.40	M33 x 2-4H ↓ 35.6	1 ¾-12 UN-3B ↓ 2.15	M42 x 2-4H ↓ 54.6
(9)	0.20	5.10	0.30	7.60	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)	⅝-18 UNF-3B ↓ 0.87	M16 x 2-4H ↓ 22.1	1 ¼-12 UNF-3B ↓ 1.40	M33 x 2-4H ↓ 35.6	1 ¾-12 UNF-3B ↓ 1.75	M42 x 2-4H ↓ 44.5

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### SPECIFICATIONS

PARAMETERS		MODEL			
		1210	1210	1220	1232
		CAPACITY			
Measuring Range	U.S. (lbf)	300, 500 1K, 2K	5K, 10K	25K, 50K	100K
	Metric (kN)	1.5, 2.5, 5, 10	25, 50	100, 250	450
ACCURACY – (MAX ERROR)					
Static Error Band – %FS		±0.04	±0.04	±0.04	±0.05
Nonlinearity – %FS		±0.04	±0.04	±0.04	±0.045
Hysteresis – %FS		±0.03	±0.05	±0.05	±0.05
Nonrepeatability – %RO		±0.01	±0.01	±0.01	±0.01
Creep, in 20 min – %		±0.025	±0.025	±0.025	±0.025
Side Load Sensitivity – %		±0.25	±0.25	±0.25	±0.25
Eccentric Load Sensitivity – % / in		±0.25	±0.25	±0.25	±0.25
TEMPERATURE					
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 / deg	°F	±0.0008	±0.0008	±0.0008	±0.0008
	°C	±0.0015	±0.0015	±0.0015	±0.0015
Effect on Output – % / deg	°F	±0.0008	±0.0008	±0.0008	±0.0008
	°C	±0.0015	±0.0015	±0.0015	±0.0015
ELECTRICAL					
Rated Output – mV/V (Nominal)		2.0	4.0	4.0	4.0
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
MECHANICAL					
Safe Overload – %CAP		±150	±150	±150	±150
Deflection @ RO	in	0.001	0.002	0.002	0.003
	mm	0.03	0.05	0.05	0.08
Optional Base – P/N (Metric)		B101 (M)	B102 (M)	B103 (M)	B112 (M)
Natural Frequency – kHz		3.9, 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	11.8
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

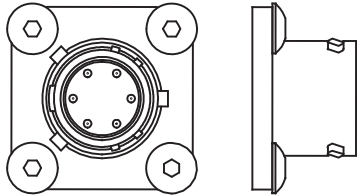
- Mating connector
- Mating cable
- Instrumentation
- Loading hardware

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### BAYONET CONNECTOR



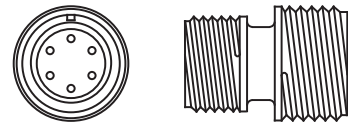
Model 1220ACK-50K



### SCREW TYPE CONNECTOR



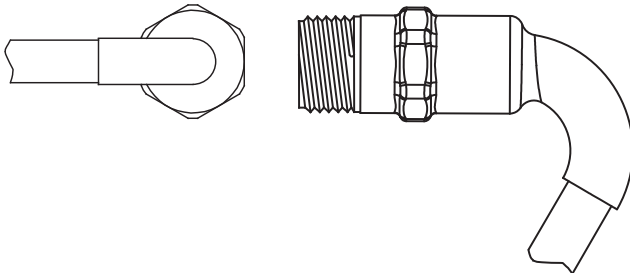
Model 1220AF-50K



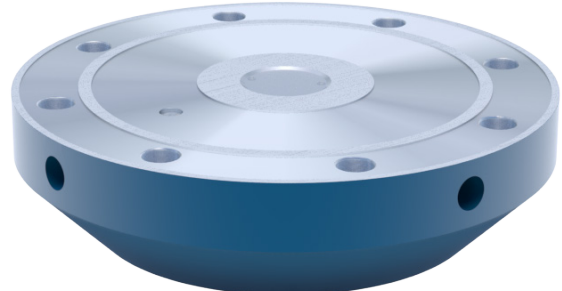
### INTEGRAL 10 FT. CABLE CONNECTOR



Model 1220AJ-50K



### BASE



Model B1XX