12x8 FLANGE LOAD CELL (U.S. & METRIC)

FEATURES & BENEFITS

- Standard flange design mounts directly to cylinders
- Tension and compression
- Fatigue rated
- Proprietary Interface temperature compensated strain gages
- Performance to 0.05%
- Eccentric load compensated
- Low deflection
- Alignment hole
- 0.0008%/°F (0.0015%/°C) temp. effect on output
- Barometric compensation
- Ease of installation
- Increased accuracy
- Ability to measure torsion with optional bridges
- Fatigue rated – Can survive 100 million fully reversed load cycles. Ideal for long term cycle testing when failure is unfordable

CONNECTOR OPTIONS

- Integral cable
- PC04E-10-6P screw connector
- PT02E-10-6P bayonet connector

STANDARD CONFIGURATION

Model 1228ACK-50K (Shown)

OPTIONS

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

ACCESSORIES

- Mating connector
- Instrumentation

Note:

- **Dimensions are approximate**
- **Contact factory for current drawings**
- ***2.41 (61.2) for 50 kN**
- **For lower capacities; refer to the 1700 model**

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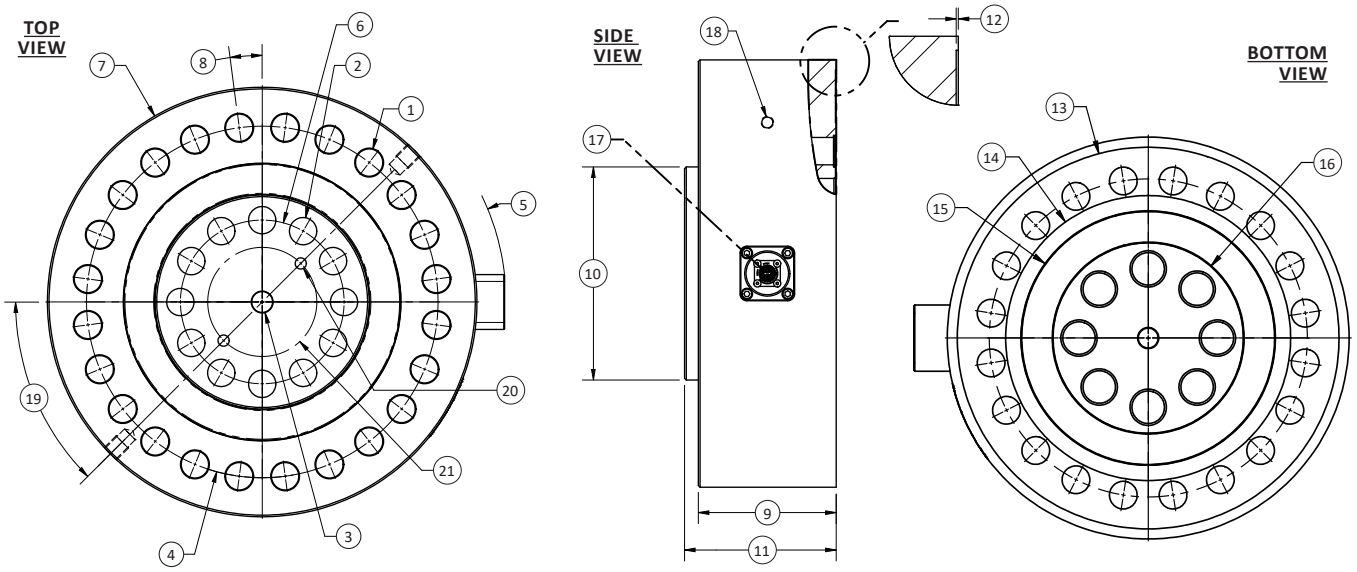

DIMENSIONS (CONTINUED)

See Drawing	MODEL							
	1228		1238		1248		1258	
	CAPACITY							
	U.S. (lbf)	Metric (kN)	U.S. (lbf)	Metric (kN)	U.S. (lbf)	Metric (kN)	U.S. (lbf)	Metric (kN)
	30K	50, 100, 140	55K	250	110K	500	220K	1000
	in	mm	in	mm	in	mm	in	mm
(1)	12 x Ø0.406 THRU ⌵ 0.44 x (90°/60°)	12 x Ø10.3 THRU ⌵ Ø11.2 (90°/60°)	16 x Ø0.50 THRU	16 x Ø12.7 THRU	16 x Ø0.66 THRU ⌵ 0.69 x 90°	16 x Ø16.7 THRU ⌵ 17.5 x 90°	20 x Ø0.83 THRU ⌵ 0.89 x 90°	20 x Ø21 THRU ⌵ 22 x 90°
(2)	8 x Ø0.41 THRU ⌵ 0.46 x 90°	8 x Ø10.5 THRU ⌵ 11.7 x 90°	8 x Ø0.65 THRU ⌵ Ø0.73 x 90°	8 x Ø16.5 THRU ⌵ Ø18.5 x 90°	8 x Ø0.65 THRU	8 x Ø16.51 THRU	8 x Ø0.969 THRU	8 x Ø24.61 THRU
(3)	Ø0.31 THRU ⌴Ø(0.3166/0.3155) ↧ 0.39 BOTH ENDS	Ø7.9 THRU ⌴Ø(0.8.042/8.014) ↧ 10.0 BOTH ENDS	Ø(0.6306/0.6299) THRU	Ø(16.017/15.999) THRU	Ø(0.6306/0.6299) THRU	Ø(16.017/15.999) THRU	Ø0.59 THRU ⌴Ø(0.6299/0.6306) ↧ 0.79 BOTH ENDS	Ø15.0 THRU ⌴Ø(15.999/16.017) ↧ 20.0 BOTH ENDS
(4)	Ø5.125	Ø130.2	Ø6.500	Ø165.1	Ø9.000	Ø228.60	Ø9.500	Ø241.30
(5)	R3.66 MIN	93.0 MIN	R4.46 MIN	113.3	R6.57	166.9	R7.07	179.5
(6)	Ø1.772	Ø45.0	Ø2.795	Ø71.0	Ø2.798	Ø70.99	Ø4.134	Ø105.00
(7)	Ø6.06	Ø153.9	Ø8.00	Ø203.1	Ø11.00	Ø279.3	Ø12.00	Ø304.8
(8)	15°		11.25°		11.25°		9°	
(9)	1.63	41.3	2.25	57.2	3.00	76.2	4.25	108.0
(10)	Ø2.41	Ø61.2	Ø3.76	Ø95.4	Ø4.81	Ø122.2	Ø5.68	Ø144.3
(11)	1.75	44.5	2.50	63.5	3.50	88.9	4.50	114.3
(12)	0.02	0.4	0.02	0.5	0.3	0.8	0.03	0.8
(13)	Ø5.86	Ø148.8	Ø7.80	Ø198.1	Ø10.60	Ø269.2	Ø11.40	Ø289.6
(14)	Ø4.3	Ø109.2	Ø5.75	Ø146.1	Ø7.40	Ø188.0	Ø8.51	Ø216.2
(15)	Ø4.01	Ø101.9	Ø5.47	Ø139.0	Ø6.78	Ø172.1	Ø7.60	Ø193.0
(16)	Ø2.41	Ø61.2	Ø3.76	Ø95.4	Ø4.81	Ø122.2	Ø5.68	Ø144.3
(17)	PC04E-10-6P		PT02E-10-6P		PT02E-10-6P		PT02E-10-6P	
(18)	–		–		–		2 x M16x2-6H ↧ 0.60	2 x M16x2-6H ↧ 15.2
(19)	–		–		33.75°		45°	
(20)	–		–		–		–	
(21)	–		–		–		–	

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DIMENSIONS (CONTINUED)

See Drawing	MODEL					
	1268		1288		1298	
	CAPACITY					
	U.S. (lbf)	Metric (kN)	U.S. (lbf)	Metric (kN)	U.S. (lbf)	Metric (kN)
	330K	1500	540K	2400	742K	3300
	in	mm	in	mm	in	mm
(1)	0.98	25.0	28 x Ø1.06 THRU	28 x Ø26.9 THRU	32 x Ø1.32 THRU	32 x Ø33.53 THRU
(2)	12 x Ø0.984 THRU	12 x Ø24.99 THRU	18 x Ø1.37 THRU ⌵ $1.46^{\pm0.02}$ x 90° FAR SIDE	18 x Ø34.8 THRU ⌵ $37.1^{\pm0.4}$ x 90° FAR SIDE	12 X 1.72 THRU ⌵ Ø$1.84^{\pm0.02}$ X 90° NEAR SIDE	12 X 43.69 THRU ⌵ Ø$46.74^{\pm0.51}$ X 90° NEAR SIDE
(3)	Ø0.75 THRU ⌴ Ø(0.7882/0.7874) ↧ 0.79 BOTH ENDS	Ø19.05 THRU ⌴ Ø(20.02/20.00) ↧ 20.1 BOTH ENDS	Ø1.00 THRU ⌴ Ø(1.0236/1.0244) ↧ 1.05 BOTH ENDS	Ø31.8 THRU ⌴ Ø(26.000/26.020) ↧ 26.7 BOTH ENDS	Ø1.25 THRU ⌴ Ø$1.3391^{\pm0.0005}$ ↧ 1.33 BOTH ENDS	Ø31.8 THRU ⌴ Ø$34.013^{\pm0.013}$ ↧ 33.8 BOTH ENDS
(4)	Ø12.684	Ø322.17	Ø16.500	Ø419.10	Ø20.500	Ø520.70
(5)	R8.80 MIN	223.6 MIN	R11.29 MIN	286.8 MIN	Ø20.500	Ø520.70
(6)	Ø5.906	Ø150.01	Ø8.465	Ø215.00	10.63	270.0
(7)	Ø15.50	Ø393.7	Ø20.50	Ø520.7	–	
(8)	7.5°		6.43°		5.63°	
(9)	5.00	127.0	6.00	152.4	7.50	190.5
(10)	Ø7.73	Ø196.3	Ø10.55	Ø267.9	13.79	350.27
(11)	5.50	139.7	6.25	158.8	7.75	196.85
(12)	0.03	0.8	0.03	0.8	0.03	0.76
(13)	–		Ø19.63	Ø498.6	24.70	627.38
(14)	–		Ø14.46	Ø367.3	18.10	459.74
(15)	–		Ø13.20	Ø335.2	16.21	411.73
(16)	–		–	–	–	–
(17)	PT02E-10-6P(023)		PT02E-10-6P		2 x LEMO FWG.2B.306.CLA	
(18)	2 x M16x2-6H ↧ 0.60 Lifting Threads	2 x M16x2-6H ↧ 15.2 Lifting Threads	4 x M20x2.5-6G ↧ 1.00	4 x M20x2.5-6G ↧ 25.4	4 x M24x3 ↧ 1.40	4 x M24x3 ↧ 35.6
(19)	45°		–		30°	
(20)	2 x M12x1.75-6H ↧ 0.70	2 x M12x1.75-6H ↧ 17.8	–		–	
(21)	Ø3.937	Ø100.00	–		–	

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SPECIFICATIONS

PARAMETERS		MODEL						
		1228	1238	1248	1258	1268	1288	1298
		CAPACITY						
Measuring Range	U.S. (lbf)	30K	55K	110K	220K	330K	540K	742K
	Metric (kN)	50, 100, 140	250	500	1000	1500	2400	3300
ACCURACY – (MAX ERROR)								
Static Error Band– %FS		±0.05	±0.05	±0.06	±0.10	±0.12	±0.15	±0.20
Nonlinearity – %FS		±0.05	±0.05	±0.06	±0.10	±0.12	±0.15	±0.20
Hysteresis – %FS		±0.05	±0.05	±0.07	±0.10	±0.12	±0.15	±0.20
Nonrepeatability – %RO		±0.01	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01
Creep, in 20 min – %		±0.025	±0.025	±0.025	±0.025	±0.025	±0.025	±0.025
Side Load Sensitivity – %		±0.25	±0.25	±0.25	±0.25	±0.25	±0.25	±0.25
Eccentric Load Sensitivity – %	in	±0.25	±0.25	±0.25	±0.25	±0.25	±0.25	±0.50
	mm	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01	±0.02
QTEMPERATURE								
Compensated Range	°F	+15 to +115	+15 to +115	+15 to +115	+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	-10 to +45	-10 to +45	-10 to +45
Operating Range	°F	-65 to +200	-65 to +200	-65 to +200	-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	-55 to +90	-55 to +90	-55 to +90
Effect on Zero – %RO MAX	°F	±0.0008	±0.0008	±0.0008	±0.0008	±0.0008	±0.0008	±0.0008
	°C	±0.0015	±0.0015	±0.0015	±0.0015	±0.0015	±0.0015	±0.0015
Effect on Output – %RO / °F MAX	°F	±0.0008	±0.0008	±0.0008	±0.0008	±0.0008	±0.0008	±0.0008
	°C	±0.0015	±0.0015	±0.0015	±0.0015	±0.0015	±0.0015	±0.0015
ELECTRICAL								
Rated Output – mV/V (Nominal)		2.2	2.2	2.2	2.2	2.2	2.2	2.2
Excitation Voltage – VDC MAX		20	20	20	20	20	20	20
Bridge Resistance – Ohm (Nominal)		350 ±3.5	350 ±3.5	350 ±3.5	350 ±3.5	350 ±3.5	350 ±3.5	350 ±3.5
Zero Balance – %RO MAX		±1.0	±1.0	±1.0	±1.0	±1.0	±1.0	±1.0
Insulation Resistance – Megohm – MIN		5000	5000	5000	5000	5000	5000	5000
MECHANICAL								
Safe Overload – %CAP		±275	±275	±275	±275	±275	±275	±275
Deflection @ RO	in	0.001	0.002	0.004	0.005	0.006	Consult factory	
	mm	0.03	0.05	0.10	0.13	0.15	Consult factory	
Natural Frequency – kHz		7	5.9	4.4	5	5.1	5.5	5.5
Weight	lbs	9.5	26	71	103	204	450	860
	kg	4.3	11.8	32.2	46.7	92.5	204	390
Connector		PT02E-10-6P						
Calibration		Tension & Compression						
Material		Alloy steel						

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