

MODELS 3140-P SERIES

Ultra-precision load cell



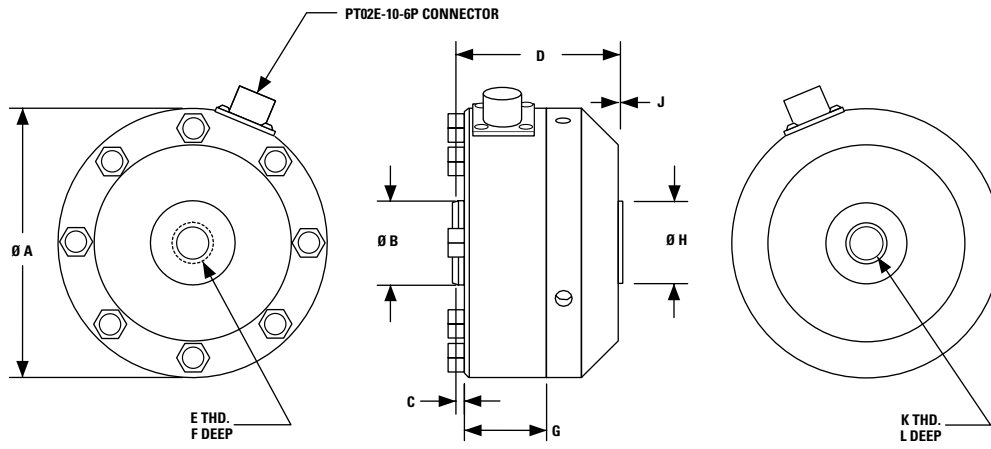
FEATURES :

- High-accuracy version of standard 3140 Series
- Low height
- Smaller guaranteed maximum off-center load and moment error than standard 3140 Series
- Static error band 0.02–0.04%
- Low creep
- Low sensitivity to magnetic fields
- Barometric pressure compensated
- Temperature compensated
- Output to 4 mV/V

PERFORMANCE SPECS : 3140-P SERIES

	3143-P	3144-P	3145-P	3146-P
	CAPACITY (lbf)			
SPECIFICATIONS	300, 500, 1K, 2K	5K, 10K	25K, 50K	100K
Accuracy:				
Zero balance: <i>of rated output</i>	±1.0%	±1.0%	±1.0%	±1.0%
Non-linearity: <i>of rated output</i>	±0.03%	±0.03%	±0.03%	±0.03%
Hysteresis: <i>of rated output</i>	±0.02%	±0.04%	±0.04%	±0.04%
Non-repeatability: <i>of rated output</i>	±0.01%	±0.01%	±0.01%	±0.01%
Static error band: <i>of rated output</i>	±0.02%	±0.03%	±0.04%	±0.04%
Creep: <i>reading in 20 minutes</i>	±0.03%	±0.03%	±0.03%	±0.03%
Off-center load sensitivity: <i>inch</i>	±0.10%	±0.10%	±0.10%	±0.10%
Side load sensitivity:	±0.10%	±0.10%	±0.10%	±0.10%
Temperature:				
Range, compensated: °F	+15 to +115	+15 to +115	+15 to +115	+15 to +115
Range, operating: °F	-65 to +200	-65 to +200	-65 to +200	-65 to +200
Effect on sensitivity: <i>Rdg/100 °F</i>	0.08%	0.08%	0.08%	0.08%
Effect on zero: <i>of rated output/100 °F</i>	0.08%	0.08%	0.08%	0.08%
Electrical:				
Excitation voltage: <i>recommended VDC</i>	10	10	10	10
Input resistance: <i>ohms</i>	350 +40/-3.5	350 +40/-3.5	350 +40/-3.5	350 +40/-3.5
Output resistance: <i>ohms</i>	350 ± 3.5	350 ± 3.5	350 ± 3.5	350 ± 3.5
Sensitivity: <i>of rated output, mV/V, nominal</i>	2	4	4	4
Insulation resistance, <i>bridge/case: megohms</i>	>5000 @ 50VDC	>5000 @ 50VDC	>5000 @ 50VDC	>5000 @ 50VDC
Mechanical:				
Safe overload range: <i>of rated output</i>	150%	150%	150%	150%
Weight: <i>lbs.</i>	1.0	2.9	9.1	23.5
Weight w/base: <i>lbs.</i>	2.5	6.5	21.5	52.5
Flexure material:	Aluminum	Steel	Steel	Steel





MODEL NUMBER	CAPACITY LBS.	ØA	ØB	C	D	E THD	F	G	ØH	J	K THD	L
3143-P-300	300	4.12	1.29	0.13	2.50	½-20 UNF 3B	1.12	1.25	1.25	0.03	½-20 UNF 3B	0.88
3143-P-500	500	4.12	1.29	0.13	2.50	½-20 UNF 3B	1.12	1.25	1.25	0.03	½-20 UNF 3B	0.88
3143-P-1K	1,000	4.12	1.29	0.13	2.50	½-20 UNF 3B	1.12	1.25	1.25	0.03	½-20 UNF 3B	0.88
3143-P-2K	2,000	4.12	1.29	0.13	2.50	½-20 UNF 3B	1.12	1.25	1.25	0.03	½-20 UNF 3B	0.88
3144-P-5K	5,000	4.12	1.29	0.13	2.50	⅝-18 UNF 3B	1.12	1.25	1.25	0.03	⅝-18 UNF 3B	0.88
3144-P-10K	10,000	4.12	1.29	0.13	2.50	⅝-18 UNF 3B	1.12	1.25	1.25	0.03	⅝-18 UNF 3B	0.88
3145-P-25K	25,000	6.06	2.34	0.13	3.50	1¼-12 UNF 3B	1.50	1.63	1.25	0.03	1¼-12 UNF 3B	1.50
3145-P-50K	50,000	6.06	2.58	0.13	3.50	1¼-12 UNF 3B	1.50	1.63	2.25	0.03	1¼-12 UNF 3B	1.50
3146-P-100K	100,000	8.00	3.76	0.25	4.50	1¾-12 UNF 3B	2.25	2.25	3.00	0.03	1¾-12 UNF 3B	1.75