

## ULC ULTRA LOW CAPACITY LOAD CELL (U.S. & METRIC)

### SPECIFICATIONS

ACCURACY – (MAX ERROR)				
Nonlinearity – %FS		±0.05		
Hysteresis – %FS		±0.05		
Nonrepeatability – %RO		±0.05		
Creep, in 20 min – %	0.1, 0.5 N	±0.1		
	0.02, 0.11 lbf			
	1, 2, 5 N	±0.05		
	0.22, 0.45, 1.12 lbf			
TEMPERATURE				
Compensated Range	°C	-10 to +45		
	°F	+15 to +115		
Operating Range	°C	-55 to +90		
	°F	-65 to +200		
Effect on Output – % / deg	°C	±0.002		
	°F	±0.001		
Effect on Zero – %RO / deg	°C	±0.004		
	°F	±0.002		
ELECTRICAL				
Rated Output – mV/V (Nominal)	0.1 N	±0.5		
	0.02 lbf			
	0.5 N	±1.5		
	0.11 lbf			
	1, 2, 5 N	±2.0		
	0.22, 0.45, 1.12 lbf			
Zero Balance – %RO (horiz.)		±2.0		
Input Resistance – Ohms		350 (+35/-3.5)		
Output Resistance – Ohms		350 (±3.5)		
Excitation Voltage – VDC MAX		12		
Insulation Resistance – Megohms		> 5000		
MECHANICAL				
Calibration		Tension		
Safe Axial Overload – %CAP		±1000		
Safe Side Overload – %CAP		±500		
Safe Load Axis Moment – %CAP x 1 in		±500		
NATURAL FREQUENCY/DEFLECTION				
N	lbf	Deflection		Nat. Freq. (Hz)
		mm	in	
0.1	0.02	0.08	0.003	65
0.5	0.11	0.23	0.011	90
1	0.22	0.23	0.011	125
2	0.45	0.20	0.008	200
5	1.12	.15	0.006	290
Material		Aluminum		
Weight	kg		0.13	
	lb		0.28	

### STANDARD CONFIGURATION



Model ULC-1N (Shown)

### FEATURES & BENEFITS

- Proprietary Interface temperature compensated strain gages
- Highest performance gram cell in the world
- Overload protected
- Safe side load overload to 5X capacity
- Low extraneous load sensitivity
- Low temperature effect on zero (0.002%/°F)
- Capacity down to 50 grams
- Tension and compression

### OPTIONS

- Cable length
- Transducer Electronic Data Sheets (TEDS)
- Custom calibration
- Standardized output
- Special temperature range

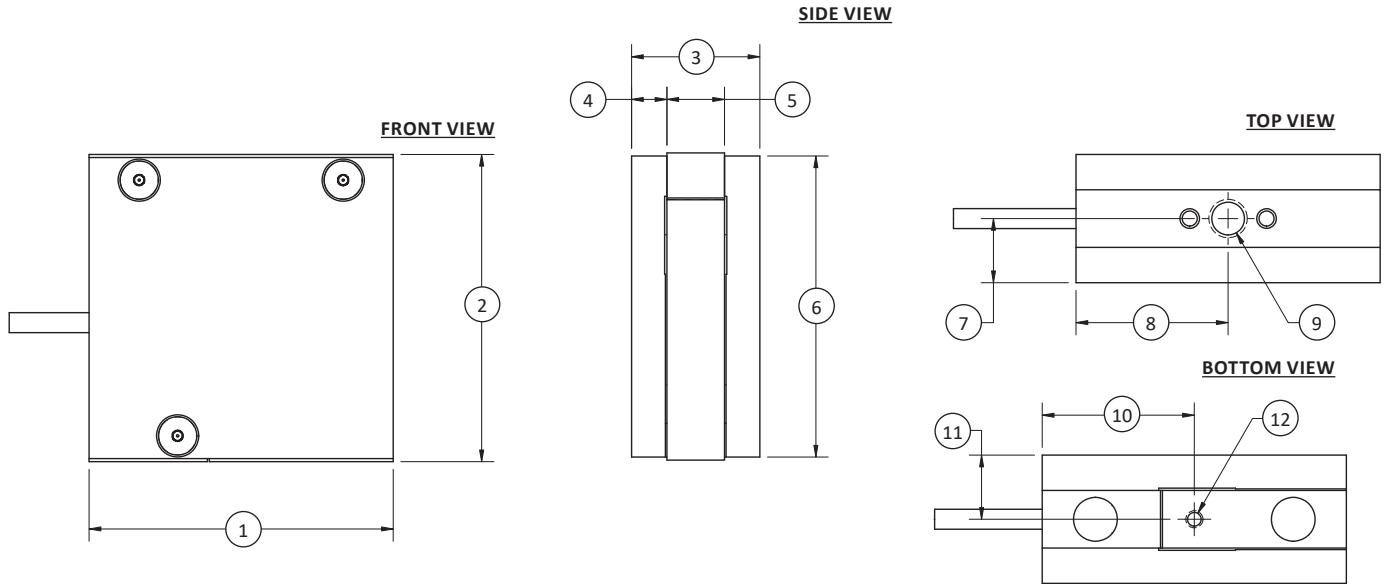
### ACCESSORIES

- Instrumentation

### CONNECTOR OPTIONS

- 1.5 m (5 ft) cable

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### DIMENSIONS

See Drawing	CAPACITY	
	Metric (N*)	U.S. (lbf)
	0.1, 0.5, 1, 2,5	0.02, 0.11, 0.22, 0.45, 1.12
	mm	in
(1)	50.3	1.98
(2)	50.8	2.00
(3)	21.2	0.84
(4)	5.8	0.23
(5)	9.5	0.38
(6)	49.8	1.96
(7)	10.6	0.42
(8)	25.1	0.99
(9)	¼-28 UNF ↓ 8.1	¼-28 UNF ↓ 0.32
(10)	25.1	0.99
(11)	10.6	0.42
(12)	4-40 UNC-2B ↓ 4.8	4-40 UNC-2B ↓ 0.19

\* 1 Newton = 102 gram force  
 Note: Other sizes are available – contact factory