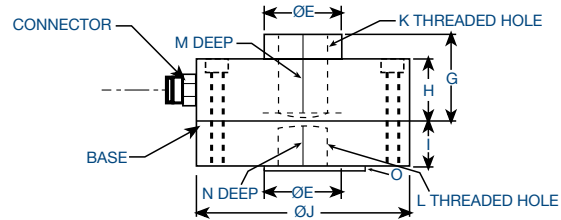
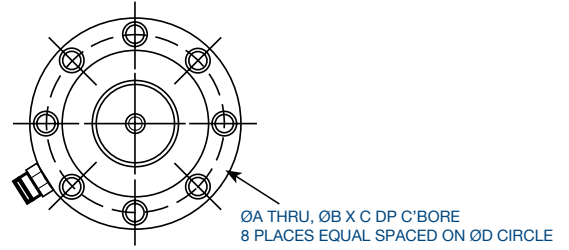


# RAL1 Low Profile Disk High Capacity Load Cell



## Dimensions

Capacity	lb		
	5k, 10k	25k, 50k	100k
A	0.283	0.343	0.406
B	0.406	0.508	0.626
C	0.3	0.4	0.4
D	3.5	4.0	4.6
E	1.30	1.60	2.00
F	0.625	0.875	0.875
G	1.75	2.12	2.25
H	1.25	1.87	2.00
I	0.75	0.94	1.14
J	4.12	4.75	5.50
K	1/2-20	3/4-16	1.25-12
L	1/2-20	3/4-16	1.25-12
M	1.337	1.541	1.886
N	0.820	0.811	1.200
O	0.0404	0.0404	0.0404

(All dimensions in inches)

## Ordering Information

Multiple Load Cell Capacities	
Capacity	Part No.
5000 lb.	RAL1-05KS-S *C01 / *C02 / *C03
10000 lb.	RAL1-10KS-S *C01 / *C02 / *C03
25000 lb.	RAL1-25KS-S *C01 / *C02 / *C03
50000 lb.	RAL1-50KS-S *C01
100000 lb.	RAL1-100KS-S *C01

## Calibration Options

*C01	Compression
*C02	Tension
*C03	Universal (Compression & Tension)

## Accuracy Specifications

Accuracy	
Non-linearity	± 0.03% of Full Scale
Hysteresis	± 0.02% of Full Scale
Non-repeatability	± 0.05% of Full Scale

## Load Cell Specifications

Zero Balance	± 2%
Safe Overload	to 150% of capacity (300% Ultimate Overload)
Rated Excitation	10V DC (20V Maximum)
Full Scale Output	4 mV/V ± 1%
Connections	20ft Cable
Input Impedance	385 ± 30 Ohm
Output Impedance	350 ± 4 Ohm
Insulation	> 5,000 MΩ
Creep, in 1 Hour	± 0.020% of Load
Operating Temperature Range	-40°C to 80°C with TARE
Temperature Effect on Output	20 ppm/°C of Load
Temperature Effect on Zero	20 ppm/°C of Rated Output

## Compatible Accessories

### Recommended Interfaces



USB Interface

1 Channel:  
DI-100U (40 Hz)  
DI-100UHS (250 Hz)  
DI-1000U (60 Hz)  
DI-1000UHS (500 Hz)  
DI-10000UHS-1K (1 KHz)  
DI-1000UHS-10K (50 KHz)

4 Channel:  
DI-400U (40 Hz)  
DI-400UHS (250 Hz)



Wireless Interface

DI-1000ZP  
DI-1000WiFi  
DI-1000BLE



Analog Interface

AI-1000 (0-5 VDC)  
AI-1000CV (0-5 VDC, 4-20 mA)

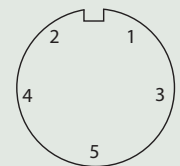


Touchscreen Display

DS-3000Pro-1 (1 Channel)  
DS-3000Pro-4 (4 Channel)

## Wiring Information

### Connector Pin Out

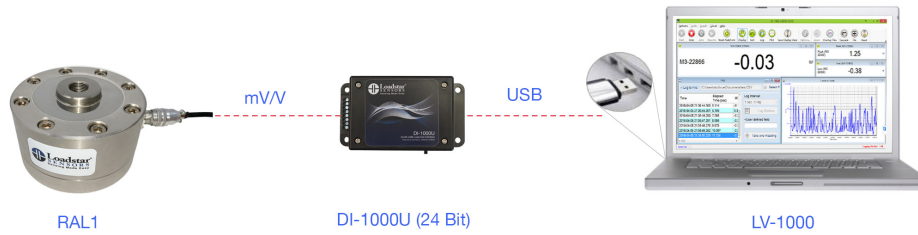
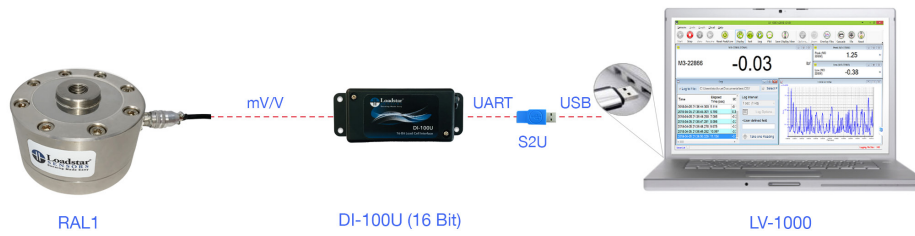


1: Excitation+	Red
2: Excitation-	Black
3: Signal+	Green
4: Signal-	White
5: Unconnected	

### Note:

Although the units have threaded holes on each end, we do not recommend using them in tension beyond 25k lbs.

### USB Load Cell Configuration



### Wireless Load Cell Configuration



### Analog Load Cell Configuration



### USB Load Cell with LCD Display

