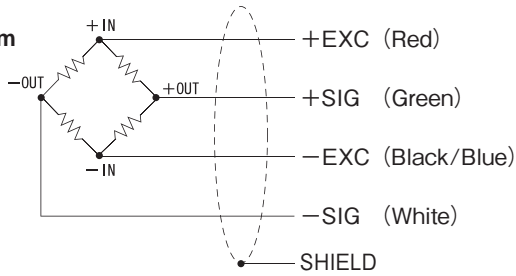


REAL SIZE



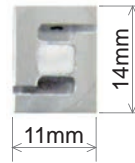
Safe overload of 500%  
 Compact tension compression type load cell  
 Ideal to measure tension, connectors mating quality check, experiments and more!

### Wiring Diagram



### Very compact

Space-saving design.  
 Ideal for side-by-side installation too.



Thickness of 4mm

### Specifications

Model	USM-1N, 2N	USM-5, 10, 20, 50N	
Rated capacity	1, 2	5, 10, 20, 50	N
Rated output	Approx. 0.4		mV/V
Safe overload	500		%R.C.
Zero balance	±0.3		mV/V
Non-linearity	0.2	0.1	%R.O.
Hysteresis	0.2	0.1	%R.O.
Repeatability	0.1		%R.O.
Compensated temperature range	-10 to +60		°C
Safe temperature range	-20 to +70		°C
Temperature effect on zero	±1		%R.O./10°C
Temperature effect on span	±1		%R.O./10°C
Input resistance	Approx. 1000		Ω
Output resistance	Approx. 1000		Ω
Recommended excitation voltage	5		V
Insulation resistance	1000 or more		MΩ
Cable	2 4-conductor flexible cable 1m End treatment 5 leads.		
Load cell material	Aluminum alloy		

### Easy to install

Two tapped holes  
 at both hands enable easier  
 connections to the actuator.



### Great durability

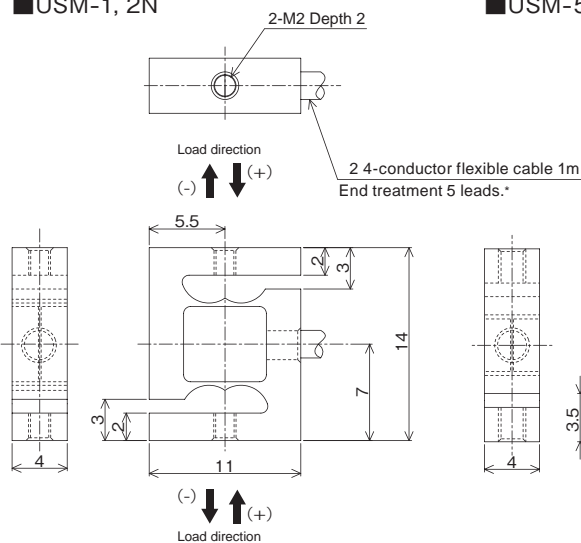
Loadcell frequently  
 gets damaged especially  
 in small force measurement,  
 and cable is easily broken.



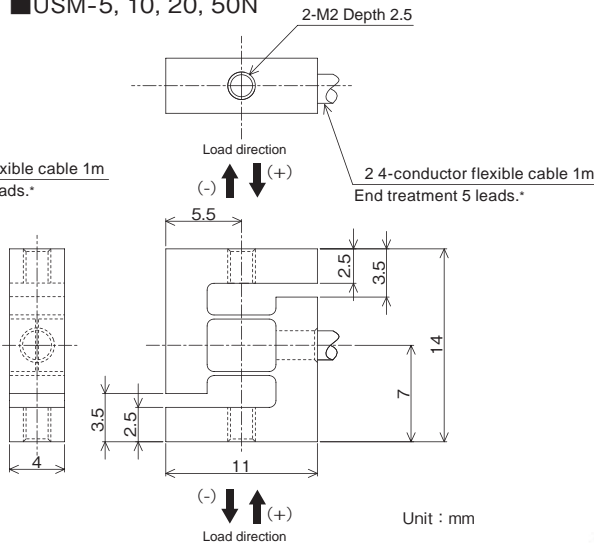
Safe overload of 500%!  
 Using high durability  
 robot cable!

### External dimension

#### ■ USM-1, 2N

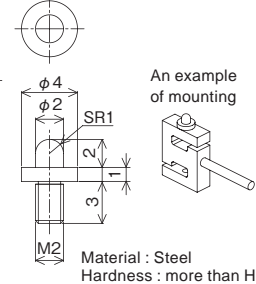


#### ■ USM-5, 10, 20, 50N



#### ■ USM-LB

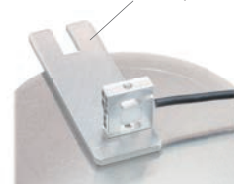
A load button which helps  
 measuring compression force.  
 (Optionally available)



An example  
 of mounting

Material : Steel  
 Hardness : more than HRC50

Attached spanner



USM is a loadcell with small rated capacity.  
 Make sure to use the attached spanner  
 when mounting.

Model	Deflection at rated	Natural frequency	Weight
USM-1N	0.006mm	2.7kHz	Approx. 2g
USM-2N	0.007mm	3.1kHz	Approx. 2g
USM-5N	0.005mm	3.8kHz	Approx. 3g
USM-10N	0.011mm	3.3kHz	Approx. 3g
USM-20N	0.011mm	4.1kHz	Approx. 3g
USM-50N	0.023mm	4.3kHz	Approx. 3g

\* Connector can be attached  
 to the cable according to your requests.  
 Refer to 48 pages for details.

Unit : mm