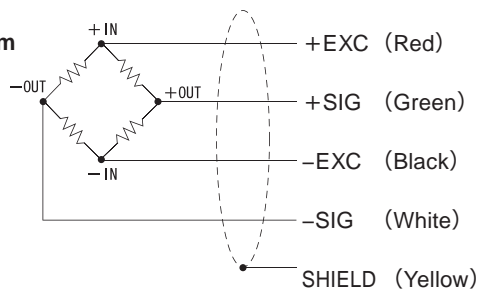




REAL SIZE

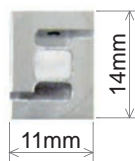
Safe overload of 500%  
Compact tension compression type load cell  
Ideal to measure tension, connectors mating quality check, experiments and more!

### Wiring Diagram



### Very compact

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



Thickness of 4mm

### Specifications

Model	USM-1N, 2N	USM-5N, 10N, 20N, 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		
Output resistance	Approx. 1000		
Recommended excitation voltage	5		V
Maximum excitation voltage	7.5		V
Insulation resistance	1000 or more		M
Cable	φ2 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.



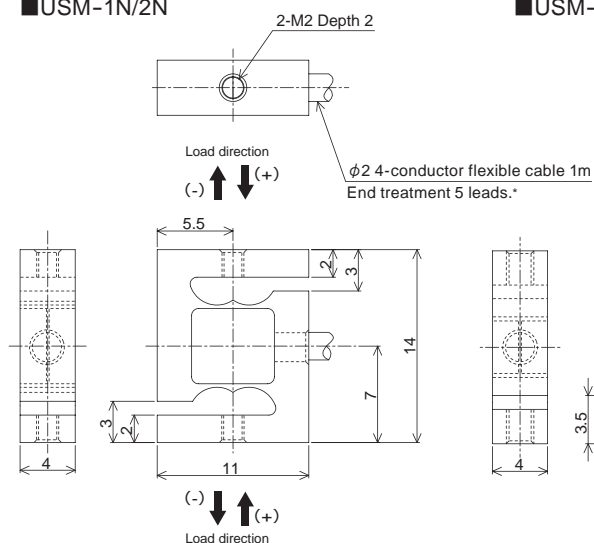
### Great durability

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

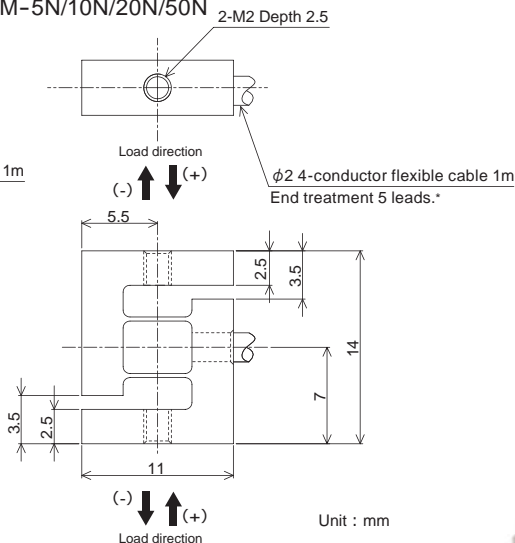
Safe overload of 500%!  
Using high durability  
robot cable!

### External dimension

#### ■USM-1N/2N

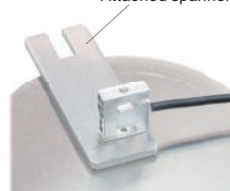
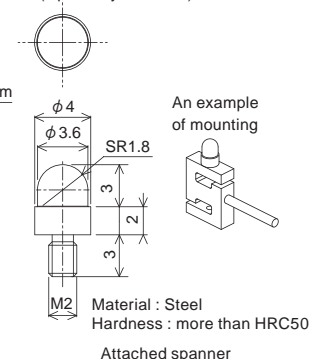


#### ■USM-5N/10N/20N/50N



#### ■USM-LB3

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



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	2g
USM-2N	0.007mm	3.1kHz	2g
USM-5N	0.005mm	3.8kHz	3g
USM-10N	0.011mm	3.3kHz	3g
USM-20N	0.011mm	4.1kHz	3g
USM-50N	0.023mm	4.3kHz	3g

\* Connector can be attached  
to the cable according to your requests.