TEAC

Compression Load Cell
TC-FR(T)□□N/KN-G6

Tension Load Cell
TT-FR(T)□□N/KN-G6

Features

Body Material

Compact & Universal
Stainless Steel

TT-FR

TC-FR

Compression Load Cell (TC-FR) / Tension Load Cell (TT-FR)

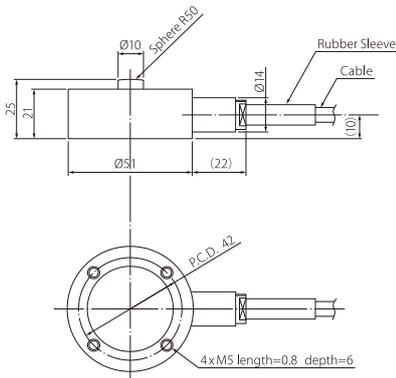| **Benefit**	**Vacuum compatible**	**Durable Robot Cable standardized**	**Plug & Play with built-in TEDS**
Easy to install on the existing facilities/systems.	Works in vaccum state. (TC-FR custom design model)	Enhanced durability against bending that occurs in moving parts with frequent repetitive motion, such as industrial robots and machine tools. High stability and reliability are realized.	With the TD series indicators, equivalent input calibration, likely to forget in manual setting, can be performed automatically and help prevetion. (See the reverse page for detail on TEDS)

Specifications

Type	Compression Load Cell						TensionLoad Cell				
Model	**TC-FR(T)□□N/KN-G6** TEDS (Embeded in the body) RoHS (10 substances)						**TT-FR(T)□□N/KN-G6** TEDS (Embeded in the body) RoHS (10 substances)				
Rated Capacity (R.C.)	**500N**	**1kN**	**2kN**	**5kN**	**10kN**	**20kN**	**500N**	**1kN**	**2kN**	**5kN**	**10kN**
Natural Frequency	3.6kHz	5.0kHz	6.0kHz	7.0kHz	10.0kHz	TBA*	3.6kHz	5kHz	6kHz	7kHz	10kHz
Weight	230g	230g	230g	230g	230g	230g	0.24kg	0.24kg	0.24kg	0.24kg	0.24kg
Safe overload rating	150% R.C.						150% R.C.				
Rated Output (R.O.)	2mV/V ±1%						2mV/V ±0.5%				
Linearity	0.1% R.O.						0.15% R.O.				
Hysterisis	0.1% R.O.						0.1% R.O.				
Repeatability	0.05% R.O.						0.05% R.O.				
Safe Excitation Voltage	15V						15V				
Input Terminal Resistance	425 ±50Ω						425 ±50Ω				
Output Terminal Resistance	350 ±5Ω						350 ±5Ω				
Insulation Resistance	1000MΩ (DC 50V)						1000MΩ (DC 50V)				
Compensated Temperature Range	−10°C to 70°C						−10°C to 70°C				
Permissible Temperature Range	−10°C to 70°C						−10°C to 70°C				
Temperature Effect on Zero Balance	0.05% R.O. / 10°C						0.05% R.O. / 10°C				
Temperature Effect on Output	0.1% R.C. / 10°C						0.05% R.C. / 10°C				
Cable	Φ6, 6-core shielded, 5m direct connection robot cable with bare lead wires						Φ6, 6-core shielded, 5m direct connection robot cable with bare lead wires				
Mounting Method	Screw hole, Base Plate						Male screw (M12)				
Body Material	Stainless Steel						Stainless Steel				

*Please contact us for more details.

Dimensional drawings (Units: mm)

TC-FR-(T)□□N/KN-G6

Ø10, Sphere R50, 25, 21, Ø14, Rubber Sleeve, Cable, Ø51, (22), (10)

P.C.D. 42, 4 x M5 length=0.8 depth=6

TT-FR-(T)□□N/KN-G6

M12 length=1.25, 70, 34, Ø51, Ø14, (16.5), Cable, Rubber Sleeve, M12 length=1.25, Ø51, (22)

16, 13.25 ±0.13, Ø12 H7, Rod-end Bearing (TF-RR112F), Load Cell (TT-FR(T)), Ø51, 34, (152), (186), Push screw, Gap 2, Rod-end Bearing (TF-RR112F), Ø34
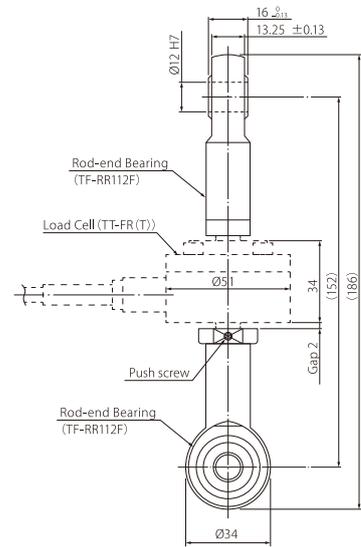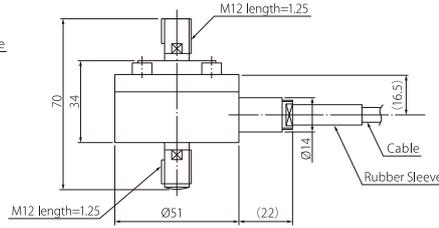
Rod-end connection

Head Plate and Base Plate

Head Plate (TF-UR102F), Ø53, Ø38, 4 x Ø6.6 equidistribution, 15, 25, 55, 15, Ø51, Base Plate (TF-LR060F), Ø42, Ø60, Ø80, Ø98, 4 x Ø6.6 equidistribution, 4 x M5 Bolt with Hex hole 12mm length (not included)
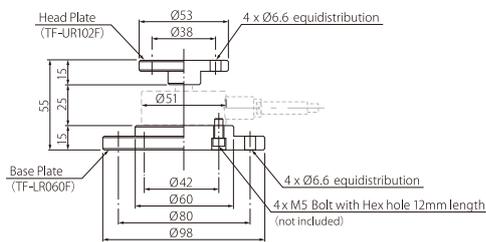
Model No.	Head Plate (Weight)	Base Plate (Weight)	Bolt with Hex hole
TC-FR(T)-G6 500N	TF-UR102F (approx. 0.13kg)	TF-LR060F (approx. 0.6kg)	M5 x 12
TC-FR(T)-G6 1kN			
TC-FR(T)-G6 2kN			
TC-FR(T)-G6 5kN			
TC-FR(T)-G6 10kN			
TC-FR(T)-G6 20kN			

Related Products (Indicators and Signal Conditioners)

New EtherNet/IP™ model CC-Link model

92 x 92mm Panel opening size

Color Graphics Digital Indicator
TD-9000T
RS-485 model
EtherNet/IP™ model
CC-Link model

High performance model with large LCD

Supporting two inputs, force sensor and displacement sensor, various comparison judgments function, and direct saving of waveform data onto large capacity internal memory.

TEDS	RoHS	4.3" LCD
Touch Panel	5,000 time/sec.	24-bit
Load/Vary Inputs	Waveform	Static Strain
Interrupt Check	High/Low Limit Compare	Judgements
D/A OUT	RS-232C	Bilingual

cULus CE CC-Link EtherNet/IP

92 x 45mm Panel opening size

Digital Indicator
TD-700T
Standard model
CC-Link model
RS-485 model

Excellent model with compact and high functionality

Supporting five key functions in one unit, numeric display, graph display, TEDS function, static strain display, and signal conditioner. This small and cost-effective TD-700T achieves equal or even higher performance to upper-class models, with high-visibility color LCD and various hold functions.

TEDS	RoHS	4,000 time/sec.	24-bit
Static Strain	Waveform	Bar Meter	D/A OUT
Data Rec	Various Holds	Bilingual	AC/DC Power

cULus CE CC-Link

New

Attaches to common DIN rails

Signal Conditioner
TD-SC1
D/A model
RS-485 model

Slim and light-weight signal conditioner

Supporting high-speed sampling of 20,000 times/second, PC-based configuration via USB connection, selectable network, and TEDS calibration function.

TEDS	RoHS	Plug-in
20,000 time/sec.	24-bit	Static Strain
Bilingual	High/Low Limit Compare	Hold Functions

cULus CE UKCA

CC-Link* EtherNet/IP*

★ Under planning

Weighs only 320g (incl. batteries)

Portable Digital Indicator
TD-01 Portable

On-site checking tool with versatility

Supporting various functions that equal to embeded systems, in hand-held size, allowing you to take measurements anytime anywhere, according to your purpose.

TEDS	RoHS	Color LCD
Waveform	Bar Meter	High/Low Limit Compare
Data Rec	Static Strain	Interrupt Check
D/A OUT	Dual I/O	24-bit
AA Batteries	Long Time Operation	Bilingual

CE

EtherNet/IP is a trademark of ODVA, Inc. Other company names, product names and logos in this document are the trademarks or registered trademarks of their respective holders.

https://loadcell.jp/en/products/loadcell/tc-fr-g6.html
https://loadcell.jp/en/products/loadcell/tt-fr-g6.html