TEAC

Compression Load Cell

TC-USR(T)□□N/KN-G3

Features

High Precision Heavy Duty

Acculate, Rugged

Coin-size

and Compact

Compression Load Cell

Built-in Anti Overload System

Easy to install on the existing facilities/systems.

Durable Robot Cable standardized

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.

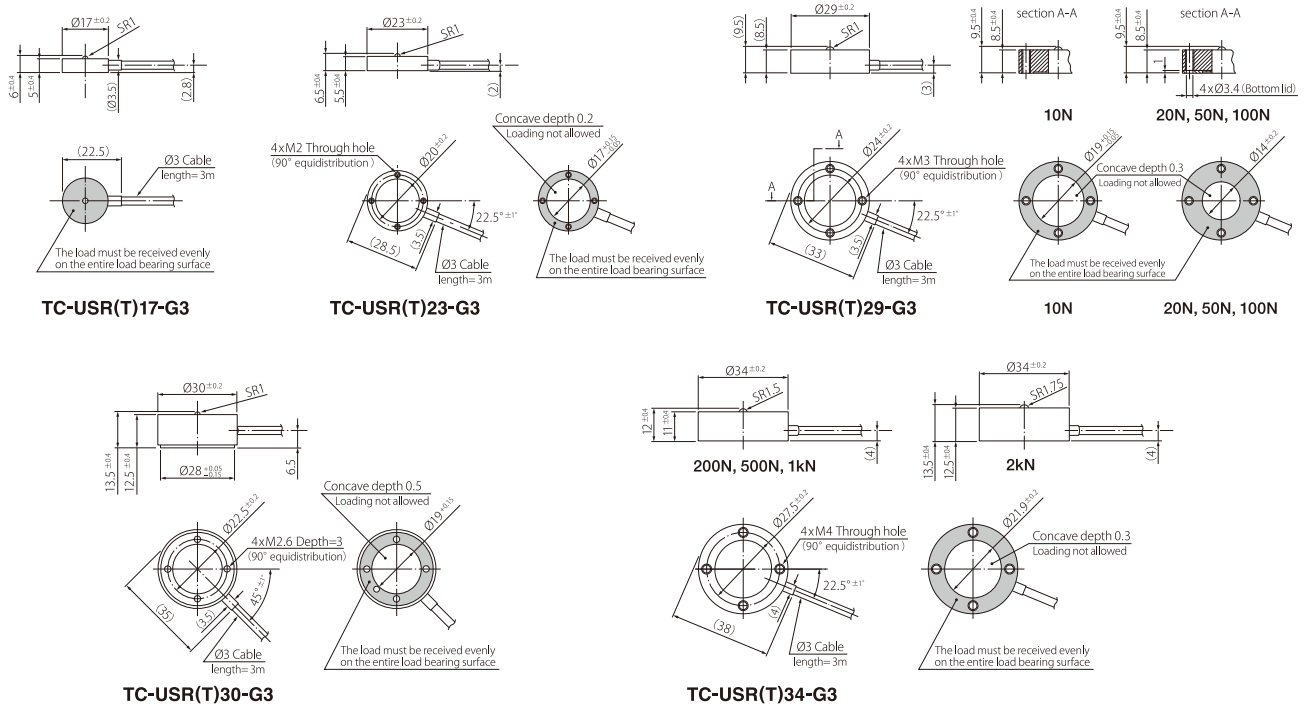
Plug & Play with built-in TEDS

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															
Model	**TC-USR(T)□□N/KN-G3** TEDS (Embeded in the body) RoHS (10 substances)															
Line up (SKU)	**TC-USR(T)30-G3**		**TC-USR(T)17-G3**			**TC-USR(T)23-G3**			**TC-USR(T)29-G3**				**TC-USR(T)34-G3**			
Rated Capacity (R.C.)	0.5N	1N	1N	2N	5N	1N	2N	5N	10N	20N	50N	100N	200N	500N	1kN	2kN
Natural Frequency	0.5kHz	0.8kHz	6.7kHz	5.6kHz	6.7kHz	7.1kHz	5.5kHz	7.5kHz	6.8kHz	7.5kHz	9.5kHz	15kHz	14kHz	14kHz	15kHz	16kHz
Weight	12g		2.5g			5g			15g	35g			58g			65g
Nominal DIameter	Ø30 type		Ø17 type			Ø23 type			Ø29 type				Ø34 type			
Body Material	Aluminum								Stainless Steel							
Safe overload rating	120% R.C.		150% R.C.													
Overload Limit	300% R.C.		500% R.C.						300% R.C.							
Rated Output (R.O.)	0.5mV/V or more		about0.4mV/V(17/23-1N)						0.75mV/V or more							
Linearity	0.1% R.O.		0.3% R.O.						0.1% R.O.							
Hysterisis	0.1% R.O.		0.3% R.O.						0.1% R.O.							
Repeatability	0.1% R.O.		0.3% R.O.						0.1% R.O.							
Safe Excitation Voltage	6V															
Input Terminal Resistance	420±20Ω		370±20Ω(17-1N)			370±20Ω(23-1N)			390±20Ω							
Output Terminal Resistance	350±20Ω															
Insulation Resistance	1000MΩ or more (50V DC)															
Compensated Temperature Range	0°C to 60°C															
Permissible Temperature Range	–5°C to 70°C		–10°C to 60°C													
Temperature Effect on Zero Balance	0.5% R.O. / 10℃(17/23-1N), 0.3% R.O. / 10°C															
Temperature Effect on Output	0.3% R.C. / 10°C		0.1% R.C. / 10°C													
Cable	Φ3, 6-core shielded, 3m direct connection robot cable with bare lead wires															
Mounting Method	Screw hole except the Φ17 type which is glue type															
Construction	Built-in Anti Overload System															

Dimensional drawings
(Units: mm)



Advantages of the TEAC Load Cells

TEAC Load Cells

Since we started manufacturing load cells, a number of load cells that achieve high response, high accuracy, and high stability, as well as products that take environmental conservation into consideration have been developed. We also offer customization for specific conditions (usage environment, space) that are difficult to meet with standard ones. From one-off prototypes to mass production, we support engineers involved in research and development on manufacturing technology.

Robot Cable standardized

Robot cables provide enhanced durability and stable performance against bending that occurs in moving parts with frequent repetitive motion, such as industrial robots and machine tools. Withthe TEDS, it allows you to save your time and reduce processes.

* Customized proposals that match your application and environment are available. Please contact our sales representatives for detail.

TEDS-compatible

The TEDS (Transducer Electronic Data Sheet) system electronically reads and writes sensor's specific characteristic such as model name, serial number, sensitivity (output value against physical quantity) and other calibration factors digitized and recorded in the load cell, allowing you to automate the reading of recorded information and equivalent input calibration, while eliminating human error in setting and reducing the burden of load cell replacement.

Related Products (Indicators and Signal Conditioners)

92 x 92mm
Panel opening size

Color Graphics Digital Indicator

TD-9000T

NPN type (Standard)
Standard model
EtherNet/IP™ model
CC-Link model

PNP type
Standard 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.

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.

Attaches to common DIN rails

Signal Conditioner

TD-SC1

D/A model
RS-485/Modbus RTU model
CC-Link model
EtherNet/IP™ 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.

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.

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