

TC-SR series TC-NSR(T)-G3

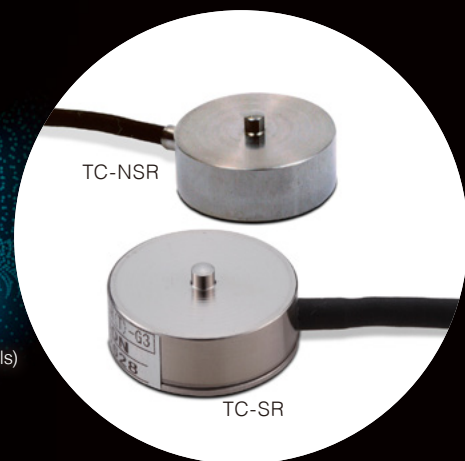
Features

Body Material

Small & Light-weight

Stainless Steel

(Beryllium Steel on some models)



Compression Load Cell

Benefit

Easy to install on the existing facilities/systems.

Mounting Method

Glue mount with Mount Base (sold separately) or Screw mount (TC-NSR)

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

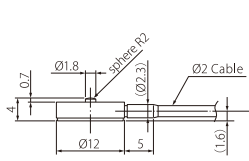
(except TC-SR□□KN-G3 series)

With the TD series indicators, equivalent input calibration, likely to forget in manual setting, can be performed automatically and help prevention. (See the reverse page for detail on TEDS)

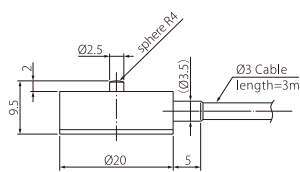
Specifications

Type	Compression Load Cell														
Model	TC-SR(T)□□N-G				TC-SR(T)□□N/KN-G3					TC-SR□□KN-G3		TC-NSR(T)□□KN-G3			
	TEDS		RoHS		TEDS		RoHS			RoHS		TEDS		RoHS	
	(Embedded in the body) (10 substances)				(Embedded in the body) (10 substances)					(10 substances)		(Embedded in the body) (10 substances)			
Rated Capacity (R.C.)	5N	10N	20N	50N	100N	200N	500N	1kN	2kN	5kN	10kN	1kN	2kN		
Natural Frequency	11kHz	17kHz	21kHz	35kHz	21kHz	25kHz	41kHz	59kHz	84kHz	101kHz	151kHz	52.8kHz	55.5kHz		
Weight (Approx.)	1.7g	1.7g	1.8g	1.9g	9.8g	9.9g	11g	11g	12g	32g	34g	16.3g	16.7g		
Safe overload rating	150 % R.C.									150 % R.C.		150 % R.C.			
Rated Output (R.O.)	approx. 1mV/V									approx. 1mV/V		approx. 0.75mV/V			
Linearity	0.5% R.O.									1% R.O.		1% R.O.			
Hysteresis	0.5% R.O.									1% R.O.		1% R.O.			
Repeatability	0.5% R.O.									1% R.O.		1% R.O.			
Safe Excitation Voltage	6V									6V		7V			
Input Terminal Resistance	350 ±20Ω									350 ±12Ω		350±20Ω			
Output Terminal Resistance	350 ±20Ω									350 ±12Ω		350 ±20Ω			
Insulation Resistance	1000MΩ or more (DC50V)									1000MΩ or more (DC50V)		1000MΩ or more (DC50V)			
Compensated Temperature Range	0°C to 60°C									0°C to 60°C		(TBC)			
Permissible Temperature Range	-10 to 60°C									-10 to 60°C		-20 to 70°C			
Temperature Effect on Zero Balance	2% R.O. / 10°C									2% R.O. / 10°C		2% R.O. / 10°C			
Temperature Effect on Output	1% R.C. / 10°C									1% R.C. / 10°C		1% R.C. / 10°C			
Cable	Φ2, 6-core shielded, 3m direct connection robot cable with bare lead wires				Φ3, 6-core shielded, 3m direct connection robot cable with bare lead wires					Φ3, 4-core shielded, 3m direct connection robot cable with bare lead wires		Φ3, 6-core shielded, 3m direct connection robot cable with bare lead wires			
Mounting Method	Glue, Housing									Glue, Housing		Screw hole			
Body Material	Beryllium Steel				Stainless Steel					Stainless Steel		Stainless Steel			

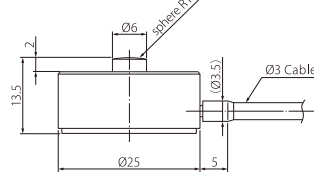
Dimensional drawings (Units: mm)



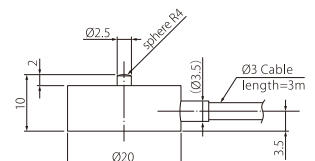
TC-SR(T)□□N-G



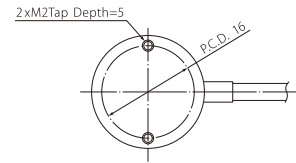
TC-SR(T)□□N/KN-G3



TC-SR□□KN-G3



TC-NSR(T)□□KN-G3



Advantages of the TEAC Load Cells

TEAC Load Cells

Since the 1980s, when TEAC started manufacturing and selling load cells, we have cultivated technologies to achieve higher precision and smaller size with our unique structures. With these technologies, 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 to match customers' applications. 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. Every TEAC's ultra-compact load cells employ robot cables, together with the TEDS function, contribute to factory automation and labor savings.

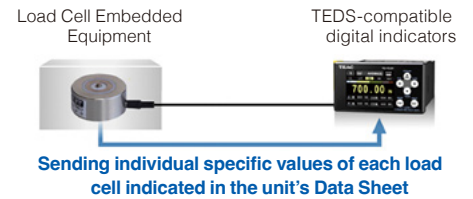
* Customized proposals that match your application and environment are available. Please contact our sales representatives for detail.



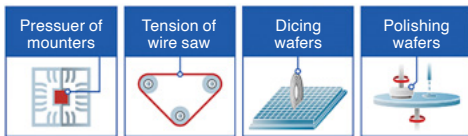
As shown above, fix the core wire so that it does not move, bend it 90 degrees to the left or right, and confirm that no wire breakage occurs.

TEDS-compatible (except TC-SR□□KN-G3)

The TEDS (Transducer Electronic Data Sheet) system is a generic term for a description format standardized by IEEE that electronically reads and writes sensor's specific characteristic, which is recorded in an EEPROM built into the sensor and can be read and written electronically. Model name, serial number, sensitivity (output value against physical quantity) and other calibration factors are digitized and recorded in the memory built into the load cell body. Sensor's specific values can be set electronically, automating the reading of recorded information and equivalent input calibration, eliminating human error in setting and reducing the burden of load cell replacement.



Examples of application



Related Products (Indicators and Signal Conditioners)



92 x 92mm
Panel opening size

Color Graphics Digital Indicator

TD-9000T

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



EtherNet/IP™

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.



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.



CC-Link EtherNet/IP™



Weighs only 320g
(incl. batteries)

Portable Digital Indicator
TD-01 Portable

On-site checking tool with versatility

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



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