

Tension and Compression Force Sensor CTS02

Scope of Supply

Force sensor with flat design, 5 m cable (PVC) and connection variant T: cable gland, straight

Variant

N2: Plug connection, straight, M12, moulded

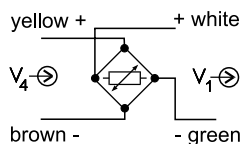
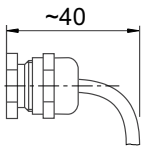
Additional Options

F: For use in explosive areas, incl. J-Box

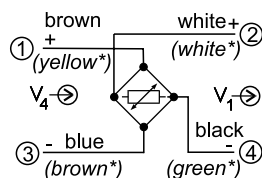
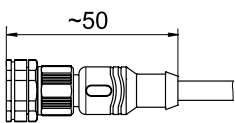


Connection

Variant T



Variant N2



V_4 Supply voltage
 V_1 Signal voltage

*Alternative color coding

Special Features

- Low profile
- Insensitive against eccentric forces
- For dynamic and static force measurement in compression-tension range
- Design with nickel plated surface, stainless steel on request

The tension compression force sensor CTS was developed for the precise measurement of large forces, which works in axial direction.

For this purpose, the outer ring is flanged to the mounting surface and the force passes into the centre bore.

The force sensors function according to the shearing force principle and are applied with full bridge strain gauges. The force acts under 45° at the four measuring elements of the load cell.

HAEHNE offers for all its sensors a corresponding range of amplifiers, e.g. the measuring amplifier MV125, to condition the measuring signal and deliver the bridge voltage supply.

Due to the design principle applied the measuring errors remain negligibly small even in case of extreme eccentrically acting forces.

Ordering Example

CTS02-300k-TF

Type
Nominal force
Variants/ Options

Other nominal force range and dimensions on request



Technical Data	% Values based on nominal force
Nominal force	150, 300 kN
	500 kN with other dimensions on request
Max. operating force	160 %
Nominal rating	1,25 mV/V
Combined error	1 %
Nominal ambient temperature	+ 10 ... + 60° C (+50...+140° F)
Operational temperature range	- 10 ... + 70° C (+14... +158° F)
Nominal resistance of strain gauge bridge	1000 Ω
Max. bridge supply voltage	10 V DC
Enclosure protection	IP 50
Sensor cable	PVC, grey, 4 x 0,34 mm ²

