

CT 400.17

Pressure transducer and TDC sensor for CT 400.02



1 pressure transducer, 2 adapter, 3 connecting cable, 4 optical reflex sensor as TDC sensor

Description

■ pressure measurement in the combustion chamber of an engine using a micro pressure transducer

For experiments using cylinder pressure indication on the CT 400.02 test engine, the engine is fitted with a micro pressure transducer. The pressure transducer is directly exposed to the combustion chamber pressure. The core component of the pressure transducer is a heat resistant piezo-electric quartz crystal, which outputs a charge signal proportional to the pressure.

The pressure transducer is connected to the measuring amplifier in the CT 400.09 electronic indication system.

The optical reflex sensor supplied serves as a TDC sensor.

Learning objectives/experiments

- cylinder pressure measurements on internal combustion engines

Specification

- [1] quartz pressure transducer
- [2] optical reflex sensor serves as TDC sensor
- [3] only to be used with CT 400.09 and CT 400.02

Technical data

Pressure transducer

- measuring range: 0...200bar
- max. operating temperature: 350°C
- sensitivity: 15pC/bar
- max. tightening torque: 1,5Nm

TDC sensor, optical reflex sensor

- max. output power: 1mW
- wavelength: 630...680µm
- operating voltage: 10...30V
- scanning range: 3...150mm

Weight: approx. 1kg

Scope of delivery

- 1 pressure transducer
- 1 optical reflex sensor
- 1 set of accessories
- 1 set of tools
- 1 connecting cable
- 1 manual

CT 400.17

Pressure transducer and TDC sensor for CT 400.02

Required accessories

CT 400	Load unit, 75kW, for four-cylinder engines
CT 400.09	Electronic engine indicating system for CT 400
CT 400.02	Four-cylinder diesel engine for CT 400