

# Thermo-Diesel TD3

FT TD3-E-8.07

# RÜEGER

[www.rueger.com](http://www.rueger.com)

A complete range of vibration-proof thermometers and probes for diesel engines, compressors and turbochargers.



Ask for sample instruments to match your application.  
TEST and PROVE them yourself !

## 1 Thermo electric probes

RTD or thermocouple sensors

The RÜEGER diesel engine probes are particularly resistant to high vibrations. They combine high precision with very high stability over time. The probe illustrated is standard for a number of diesel engines and used on most marine diesel engines.

RÜEGER can supply other types, according to customer's specification.

	Resistance probe	Thermocouple probe
Max. temperature	+650°C	+1200°C
Measuring element	Pt 100 ohms/0°C 2/3-wire, vibration-proof	NiCr-Ni single, insulated junction, with mineral insulation
Stem	AISI 316	Inconel 600, AISI 446
Pocket	AISI 316 / 304	AISI 316, AISI 310
Sensor diameter	6mm/9.5mm	6mm/9.5mm
Pocket execution	according to customer's requirement	
Fitting	threaded, compression or flange connection	

Ask our advice on any specific problem.



Type SD30  
Pt100 or Type K



SD80

## 2 Thermometers for exhaust gas systems

With rigid stem

These thermometers are especially designed for high temperatures and extreme vibrations as required for exhaust gas systems. Silicone oil filled and equipped with an ambient temperature correction device, the precision is also maintained at high ambient temperatures.

For smaller engines RÜEGER can also deliver a bimetal exhaust gas thermometer, which is equal in reliability and precision.

RÜEGER exhaust gas thermometers are used by the world's leading marine diesel engine manufacturers.

With more than 60 years experience in the temperature measurement RÜEGER is able to solve even the most difficult problems in temperature measurement.

Ingress protection: IP68

Do you need practical proof?

Ask for a sample to your specification – and test it. If you need to receive more information, please contact us or consult [www.rueger.com](http://www.rueger.com)



Type TGV100AD  
+ AMX

### 3 Capillary tube gas pressure thermometers

for exhaust gas systems and cooling circuits

#### Advanced technology for remote reading thermometers

RÜEGER's reputation with the heavy duty gas pressure thermometers, its leading technology of neutral gas (Ar or He) filled measuring systems and ambient temperature compensation is world-famous. By applying its expertise in temperature measurement technique to capillary tube thermometers, RÜEGER opens up a vast range of new possibilities: from the control of cooling and lubricating circuits to the monitoring of exhaust gas temperatures.

Ingress protection: IP68

Temperature ranges: 0...+100°C, 0...+600°C, +100...+600°C  
0...+650°C, 0...+700°C, 0...+800°C.

All-stainless thermometers, 100mm (4") dia. also available (TF.100.I).



Type TFV100BI  
+ AMX

### 4 Dial-type thermometer for cooling, lubricating circuits and air inlet systems

These bimetal dial-type thermometers have big advantages over glass capillary tubes, such as:

- **Easy reading:** even at a distance, and when the front glass is dirty.
- **Mechanical strength:** no capillary breaking under vibration
- **Toughness:** metal head, and shock-protected measuring system. No liquid column separation risk, as in glass types.
- **Interchangeable** with glass thermometers; same connections/fittings and immersion lengths.
- **Lifetime longer than any glass capillary thermometer**
- **Less customer claims on broken thermometers**  
(some of the world's biggest diesel engine manufacturers have changed to RÜEGER bimetal dial thermometers for the above mentioned reasons)

Ingress protection: IP68

Temperature ranges: 0...+120°C, 0...+160°C, 0...+200°C, 0...+320°C.  
Other ranges available on request.

Ask for a price quotation and a sample thermometer.



Type THV080TD

### 5 Pockets (Thermowells)

Bar stock or built-up (welded) pockets depending on the application. Dimensions and material due to customer's specification.

Instrument connection: G1/2, G3/4, other on request

Process connection: G1/2, G3/4, M20x1.5, M33x2

Material: AISI 316 (std), AISI 304 or other on request



## 6 The two-in-one instrument:

Gas pressure thermometer + T/C probe type K or Pt100

### S92: TGV100AI + Pt100 or T/C

RÜEGER has innovated temperature measuring by combining local indicating gas pressure or bimetal thermometers with thermo electric sensors.

Your advantage is:

- one pocket for two measuring points
- two independent measuring systems (fail safe)
- both measurements are taken at the same position
- especially adapted for the use in diesel engines
- especially designed for exhaust gas systems on diesel engines (S92 UD)
- optional head transmitter 4...20mA available

For this application, RÜEGER selected its "top of the line" TGV 100 gas-filled thermometer. The stem houses both the gas-filled bulb and the Pt100/thermo-couple sensor. The temperature is thus measured at one point only, and the single protection pocket both simplifies mounting and cuts the cost by half. And as the two measuring systems are completely independent, reliability is maximized.

Ask for our detailed literature TG 2



Type S92UD

### S91: TGV100AI + Pt100 or T/C probe type K TGH100AI + Pt100 or T/C probe type K TFV100AI + Pt100 or T/C probe type K

For other diesel applications the S91 sensor combines the TGV100AI or TGH100AI RTD Pt100 or T/C probe type K.



Type S91 + AMX

Modifications reserved

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