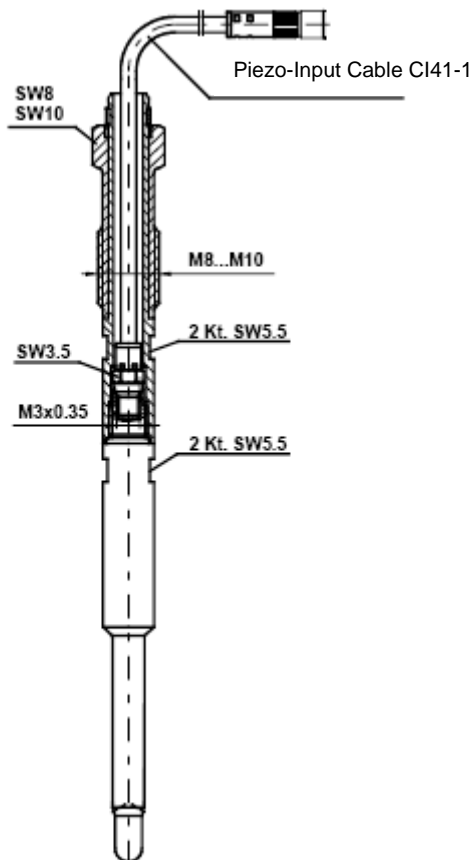


Sensors

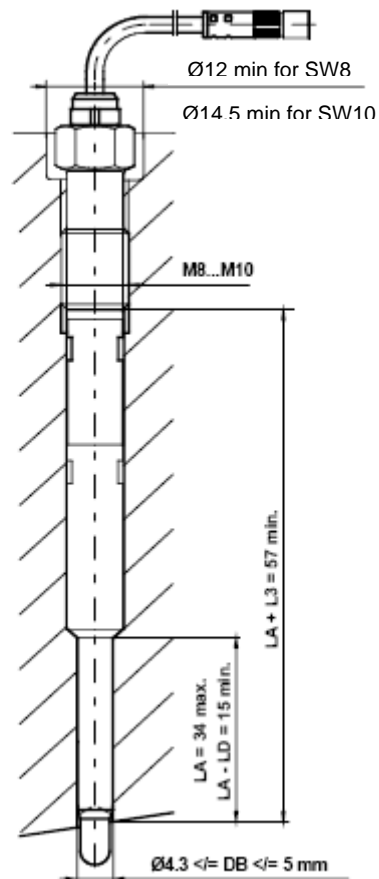


GH13G Glow Plug Sensor TIGH13GPA.01

Modern diesel engines with slim glow plugs at around 3,5mm and bore diameters down to 4,3mm create a demand of innovative concepts for the indicating of cylinder pressures. Using the new glow plug sensor GH13G a nearly flush mounted positioning of the sensor diaphragm – the warranty for the best signal quality without "optimized" pipe oscillation in "optimized" indicating channels – becomes possible.



Dimensional drawing



Installation drawing mounting torque 4 Nm

GH13G Glow Plug Sensor

Standard Specifications

Measuring Range	0...250 bar (3625 psi), 25 MPa
Lifetime	> 10 ⁸ Cycles
Overload	300 bar (4350 psi), 30 MPa
Sensitivity (nominal)	15 pC/bar (1.03 pC/psi), 150 pC/MPa
Linearity	< ±0.3% FSO
Resonance Frequency	130 kHz
Acceleration Sensitivity	< 0.001 bar/g
Shock Resistance	> 2000 g
Operating Temperature Range	up to 400°C (750°F)
Thermal Sensitivity Shift at	20...400°C <±2% 200...300°C <±0.5%
Insulation Resistance at 20°C (68°F)	>10 ¹³ Ω
Capacitance	7 pF
Mounting Torque	4 Nm

Thermodynamic Specifications

Cyclic Temperature Drift (1300 rpm/7 bar)	< ±0.5 bar
Load Change Drift	
Max. Zero-Line Gradient dp/dt	1.5 mbar/ms
Permanent Zero-Line Deviation	2 bar
pi-Stability	< 3 %

Accessories

Cable and Coupling	CI31-1, CC31
Cable-Mounting Tool	TC31
Mounting Tool	TA16 (M10); TT09 (M8), E124-10

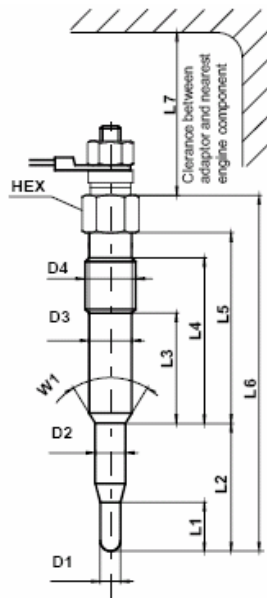
Scope of Supply

1 Pressure Sensor GH13G	1 Protection Cap PT01
1 Piezo-Input Cable CI31-1 with Coupling CC31 mounted	1 Calibration Protocol
2 Spare O-Rings for the Cable	1 Specification Sheet
	1 Brief Description

GH13G Glow Plug Sensor

For the first purchasing the article TIAGDESA.01 **Glow Plug Adapter Design Cost** will be invoiced additionally.
 For the sensor design the exact dimensions of the glow plug and its bore are needed.

Glow Plug



Glow plug bore

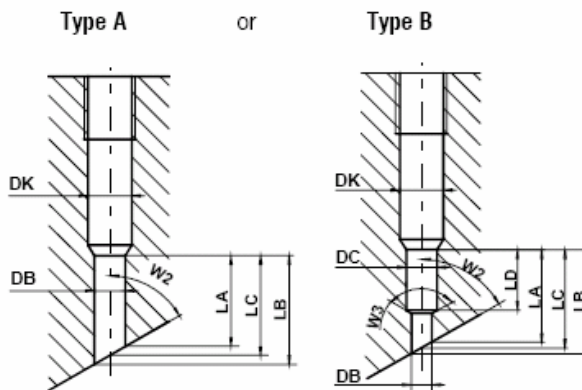


Table of dimensions

Glow plug

Original Glow Plug
 Engine type

Dimension	Value	
D1	<input type="text"/>	mm
D2	<input type="text"/>	mm
D3	<input type="text"/>	mm
D4	M <input type="checkbox"/> X <input type="checkbox"/>	mm
L1	<input type="text"/>	mm
L2	<input type="text"/>	mm
L3	<input type="text"/>	mm
L4	<input type="text"/>	mm
L5	<input type="text"/>	mm
L6	<input type="text"/>	mm
L7	<input type="text"/>	mm
W1	<input type="text"/>	°
SW	<input type="text"/>	mm

Glow plug bore

Dimension	Value	± Tolerance
LA	<input type="text"/>	mm
LB	<input type="text"/>	mm
LC	<input type="text"/>	mm
LD	<input type="text"/>	mm ± 0.
DB	<input type="text"/>	mm ± 0.
DC	<input type="text"/>	mm ± 0.
DK	<input type="text"/>	mm ± 0.
W2	<input type="text"/>	°
W3	<input type="text"/>	°

When ordering please enter all dimension in the Table of Dimensions according to the drawings beside. The input as well as forwarding the form can be carried out in electronical manner.

Remarks:

If length LC is specified angle W2 is required.

Recommended tolerances:

DB, DC ... +/- 0,02mm

LD ... +/- 0,2mm

Geometrical limitations:

DB ... 4,3 <= DB <= 5mm (Alternative TIAG03.01 or TIAG04.01)

LA <= 34mm

LA - LD .. >15mm (for DC>5mm)

LA + L3 ... >= 57mm