



## Warnings

Connect the power supply and the display/output device according to the safety regulations for electrical equipment.

> Risk of injury, damage to or destruction of the controller and/or the gauge

Only connect/disconnect the power supply to/from the controller when it is switched off.

> Damage to or destruction of the controller and the measuring gauge

Avoid shocks and impacts to the controller and the gauge.

> Damage to or destruction of the controller and the gauge

The supply voltage must not exceed the specified limits.

> Damage to or destruction of the controller and the gauge

Protect the sensor cable against damage.

> Destruction of the gauge

> Failure of the measuring device

Do not clamp the gauge with a grub screw at one point.

> Damage to the gauge

Do not carry the gauge on the probe tip.

> Damage to the probe tip

## Notes on CE Marking

The following apply to the induSENSOR DTD-xG8 series:

EU Directive 2014/30/EU and EU Directive 2011/65/EU

The sensor satisfies the requirements if the guidelines in the operating instructions are maintained in installation and operation.

MICRO-EPSILON MESSTECHNIK GmbH & Co. KG

Koenigbacher Str. 15 • 94496 Ortenburg / Germany

Tel. +49 (0) 8542 / 168-0 • Fax +49 (0) 8542 / 168-90

info@micro-epsilon.com • www.micro-epsilon.com

Your local contact: [www.micro-epsilon.com/contact/worldwide/](http://www.micro-epsilon.com/contact/worldwide/)

X9771433-A022122HDR

## Unpacking/Included in Delivery

1 induSENSOR, DTD-xG8 series, includes a controller with a DTA-xG8 sensor

1 Mounting clamp

## Proper Environment

- Protection class:

▪ Sensor:

• with bellows: IP65

• without bellows: IP54

▪ Controller: IP67

- Temperature range:

▪ Operation:

• Sensor without bellows: -20 ... +80 °C (-4 ... -176 °F)

• Sensor with bellows: 0 ... +80 °C (+32 ... +176 °F)

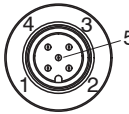
• Controller: -40 ... +85 °C (-40 ... +185 °F)

• Storage: -40 ... +80 °C (-4 ... -176 °F)

- Humidity: 5 - 95 % (non-condensing)

- Ambient pressure: Atmospheric pressure

## Pin Assignment

Pin	Assignment	Cable color (PC5/5-IWT)	 <p>5-pin M12x1 housing connector (A-coded; view on pin side)</p>
1	Supply voltage $V_+$	Brown	
2	RS485 - A	White	
3	GND	Blue	
4	Signal out	Black	
5	RS485 - B	Gray	

Pin assignment for power supply and signal, 5-pin housing connector M12

➡ Connect the system to the power supply using the optionally available PC5/5-IWT supply and output cable.

The minimum bending radius of the PC5/5-IWT power supply and output cable (available as optional accessories) is eight times the cable diameter.

## Initial Operation

To change the controller settings, use the IF7001 single-channel USB/RS485 converter available as an optional accessory.

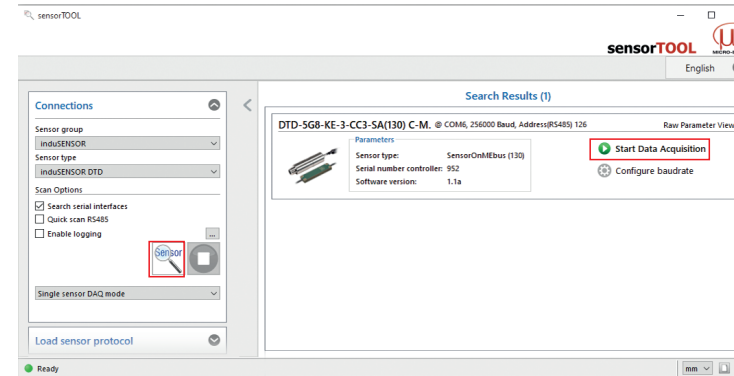
➡ Connect the controller via the USB interface to a PC/notebook.

➡ Start the program `sensorTOOL`.


You can find this program online at

[www.micro-epsilon.com/download/software/sensorTOOL.exe](http://www.micro-epsilon.com/download/software/sensorTOOL.exe)

The following view appears:



➡ In the drop down menu, set the sensor group `induSENSOR`, and with the sensor type `induSENSOR DTD`.

➡ Click the  button. Select a desired sensor. Click the `Start Data Acquisition` button.

You can now make your settings.

You can find more information about the sensor, the controller and the sensorTOOL in the operating instructions. They are available online at

Gauge: <https://www.micro-epsilon.de/download-file/man--induSENSOR-Serie-LVDT-Messtaster--de-en.pdf>

Controller: <https://www.micro-epsilon.de/download-file/man--induSENSOR-MSCT7xxx--en.pdf>

## Installation and Assembly

### Precautions

Avoid lateral forces on the probe tip of the gauge. Protect the cable sheath of the sensor cable from sharp, pointed and heavy objects.

Never bend the sensor cable more tightly than the bending radius. Avoid folding the cables.

Avoid cyclic movements of the crimps and the ferrite of the sensor of the sensor cable. Fix the sensor cable in the case of cyclic movements (e.g. use in a draig chain), additionally fix the sensor cable with suitable tools.

### Sensor Mounting

➡ Use a circumferential clamping on the sensor housing (gauge) to mount the sensor.

It ensures the highest level of reliability because the gauge's cylindrical cover is clamped over a relatively large area.

The integrated spring pushes the probe tip of the gauge onto the measuring object.

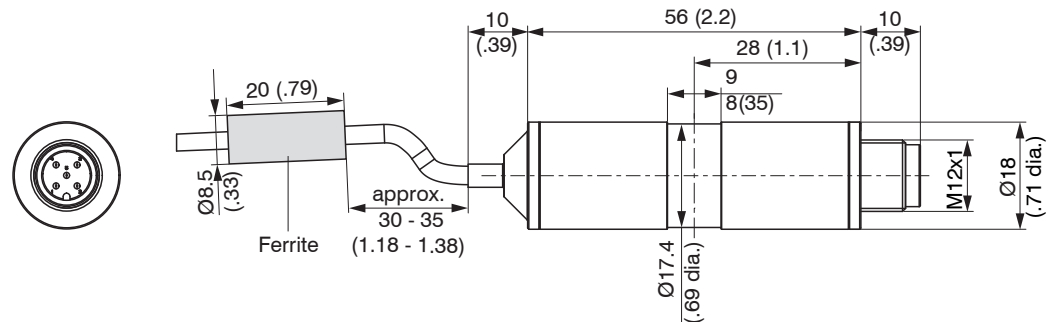
### Controller Mounting

➡ When mounting the controller, use the mounting clamp included in the scope of delivery and a suitable M3 screw.

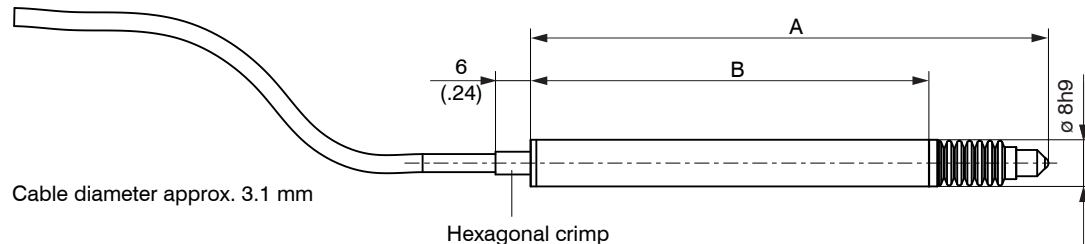
### Dismantling the Bellows

- ➡ Unscrew the probe tip.
- ➡ Remove the front support ring.
- ➡ Remove the rear support ring.
- ➡ Remove the bellows.
- ➡ Attach the probe tip again.

## Dimensional Drawings



Dimensional drawing for controller, dimensions in mm (inches)

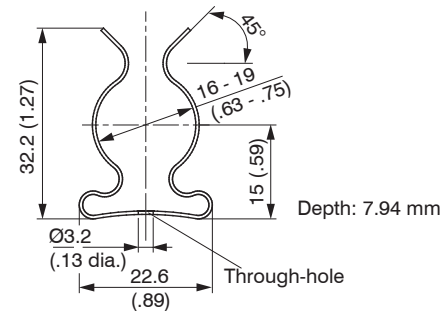


Dimensional drawing for gauge, dimensions in mm (inches)

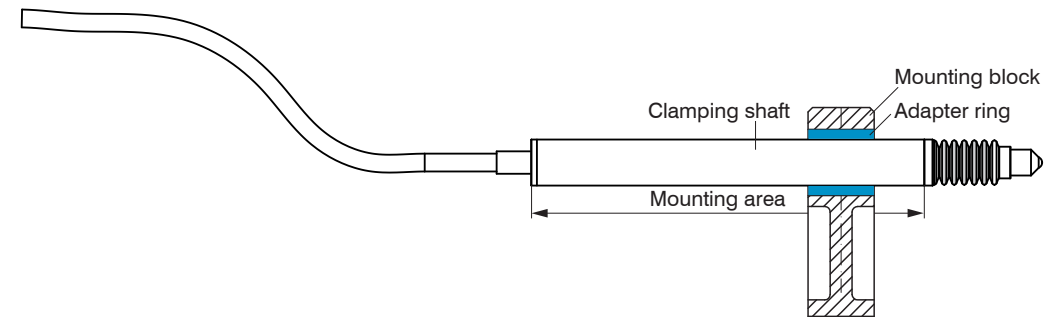
Model	A (zero position)	B
DTD-1G8	83 (3.3)	64.3 (2.5)
DTD-3G8	89 (3.5)	68.3 (2.7)
DTD-5G8	118 (4.6)	89.5 (3.5)
DTD-10G8	155 (6.1)	121.7 (4.8)

Table with housing dimensions of DTD-xG8 gauge

Dimensions in mm (inches)

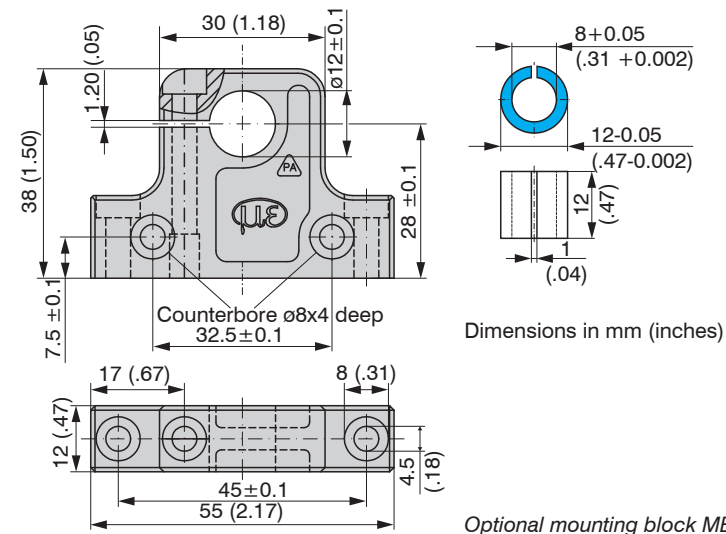


Dimensional drawing for mounting clamp



Mounting the gauge with circumferential clamping using the optional mounting block MBS12/8 <sup>1</sup>

- 1) Mounting with circumferential clamping using the optional mounting block MBS12/8 and an optional adapter ring MBS12/8 possible, also see chapter Optional Accessories in the Operating Instructions.



Dimensions in mm (inches)

Adapter ring MBS12/8 for mounting block MBS12/8

Optional mounting block MBS12/8