

# SENSOR DIMENSIONS

## FIBER-OPTIC SENSORS

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### 1 SENSOR DIMENSIONS

All dimensions stated for the following sensors are valid for all available versions of the respective oxygen sensors: full range and trace range versions, high speed and ultra-high speed versions (options **-HS** & **-UHS**), as well as optically isolated sensors (option **-OI**).

#### 1.1 Dimensions of robust probes and robust screw cap probes

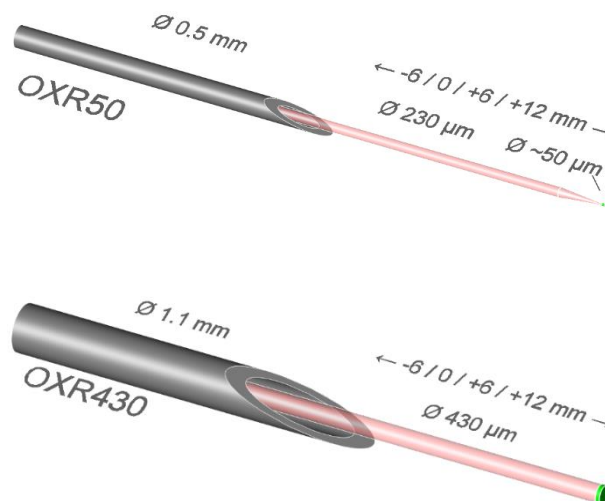
Sensor Dimensions	OXROB3/10	OXROBSC / TPROBSC	OXROBGSC
<b>Sensor Dimensions</b>			
Length without cable (ca.)	30 / 100 mm	100 mm	100 mm
Shaft diameter (ca.)	3 mm	3 -4 mm (tapered)	3 -4 mm (tapered)
Tip Diameter (ca.)	4 mm	4 mm	4 mm
<b>Cable length (ca.)</b>	2 or 4 m	2 m	5, 10 or 20 m

## 1.2 Dimensions of Retractable Needle-type Sensors (OXR50 & OXR430; TPR430)

Sensor Dimensions	OXR50	OXR430 / TPR430
<b>Sensor Dimensions</b> Length without cable (ca.) Shaft diameter (ca.)	230 mm 8 mm	230 mm 8 mm
<b>Needle Dimensions</b> Length Diameter	40 mm 0.5 mm	40 mm 1.1 mm mm
<b>Fiber and Sensor Tip</b> Fiber diameter Tip diameter (ca.) Sensor tip position (rel. to needle, ca.)	230 $\mu$ m 50-70 $\mu$ m -6/0/+6/+12 mm	430 $\mu$ m 430 $\mu$ m -6/0/+6/+12 mm
<b>Cable length (ca.)</b>	2 m or 4 m (custom versions up to 20 m)	

### Tip Geometries

True to scale drawings with syringe needle (grey), optical fiber (pink) and oxygen-sensitive REDFLASH indicator (green).

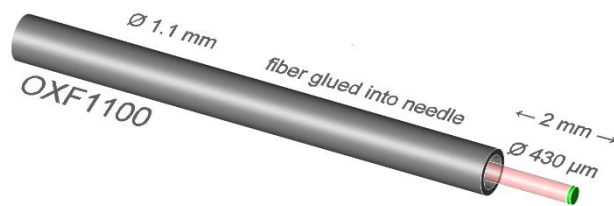


### 1.3 Dimensions of Fixed Needle-type Sensors (OXF50, OXF1100; TPF1100)

Sensor Dimensions	OXF50 / TPF1100	OXF1100
<b>Sensor Dimensions</b> Length without cable (ca.) Shaft diameter (ca.)	190 mm 8 mm	190 mm 8 mm
<b>Needle Dimensions</b> Length Diameter	40 mm 0.5 mm	40 mm 1.2 mm
<b>Fiber and Sensor Tip</b> Fiber diameter Tip diameter (ca.) Sensor tip position (rel. to needle, ca.)	230 $\mu\text{m}$ 50-70 $\mu\text{m}$ ca. 6 mm	430 $\mu\text{m}$ 430 $\mu\text{m}$ ca. 2-3 mm
<b>Cable length (ca.)</b>	2 m or 4 m (custom versions up to 20 m)	

#### Tip Geometries (exemplary)

True to scale drawings with syringe needle (grey), optical fiber (pink) and oxygen-sensitive REDFLASH indicator (green).

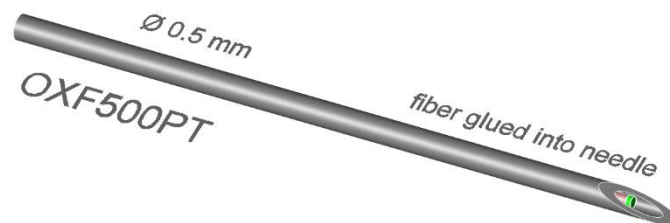


## 1.4 Dimensions of Fixed Needle-type Sensors with protected tip (OXF500PT & OXF900PT)

Sensor Dimensions	OXF500PT	OXF900PT
<b>Sensor Dimensions</b> Length without cable (ca.) Shaft diameter (ca.)	190 mm 8 mm	190 mm 8 mm
<b>Needle Dimensions</b> Length Diameter	40 mm 0.5 mm	40 mm 0.9 mm
<b>Fiber and Sensor Tip</b> Fiber diameter Tip diameter (ca.) Sensor tip position (rel. to needle)	230 $\mu$ m 230 $\mu$ m 0 mm	230 $\mu$ m 230 $\mu$ m 0 mm
<b>Cable length (ca.)</b>	2 m or 4 m (custom versions up to 20 m)	

### Tip Geometries (exemplary)

True to scale drawings with syringe needle (grey), optical fiber (pink) and oxygen-sensitive REDFLASH indicator (green).

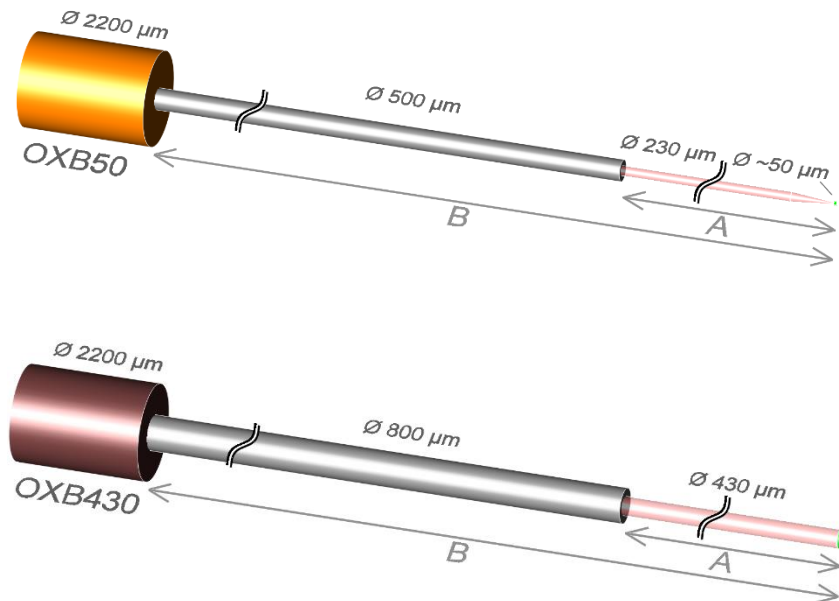


## 1.5 Dimensions of Bare Fiber Sensors (OXB50, OXB430; TPB430)

Sensor Dimensions	OXB50	OXB430 / TPB430
<b>Fiber and Sensor Tip</b>		
Fiber diameter	230 $\mu\text{m}$	430 $\mu\text{m}$
Tip diameter (ca.)	50-70 $\mu\text{m}$	430 $\mu\text{m}$
Tip geometry	see image below	
Stripping length	A = 20mm, B = 100mm (other stripping lengths optional on request: A= 5-30 mm, B= 20-500 mm (B +/- 5 mm))	
<b>Cable length (ca.)</b>	2 m or 4 m (custom versions up to 20 m)	

### Tip Geometries

True to scale drawings with outer jacket (orange), plastic coating (grey), optical fiber (pink) and oxygen-sensitive REDFLASH indicator (green).



## 1.6 Dimensions of Solvent-Resistant Probes (OX SOLV & OX SOLV-PTS)

Sensor Dimensions	OX SOLV	OX SOLV-PTS
<b>Sensor Dimensions</b> Length without cable (ca.) Shaft diameter (ca.)	300 mm 8 mm	190 mm 8 mm
<b>Needle Dimensions</b> Length Diameter	150 mm 1.5 mm	40 mm 1.5 mm
<b>Fiber and Sensor Tip</b> Fiber diameter Sensor tip position (rel. to needle, ca.)	3 mm 2 mm	3 mm 0 mm
<b>Cable length</b> (ca.)	2 m or 4 m (custom versions up to 20 m)	

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