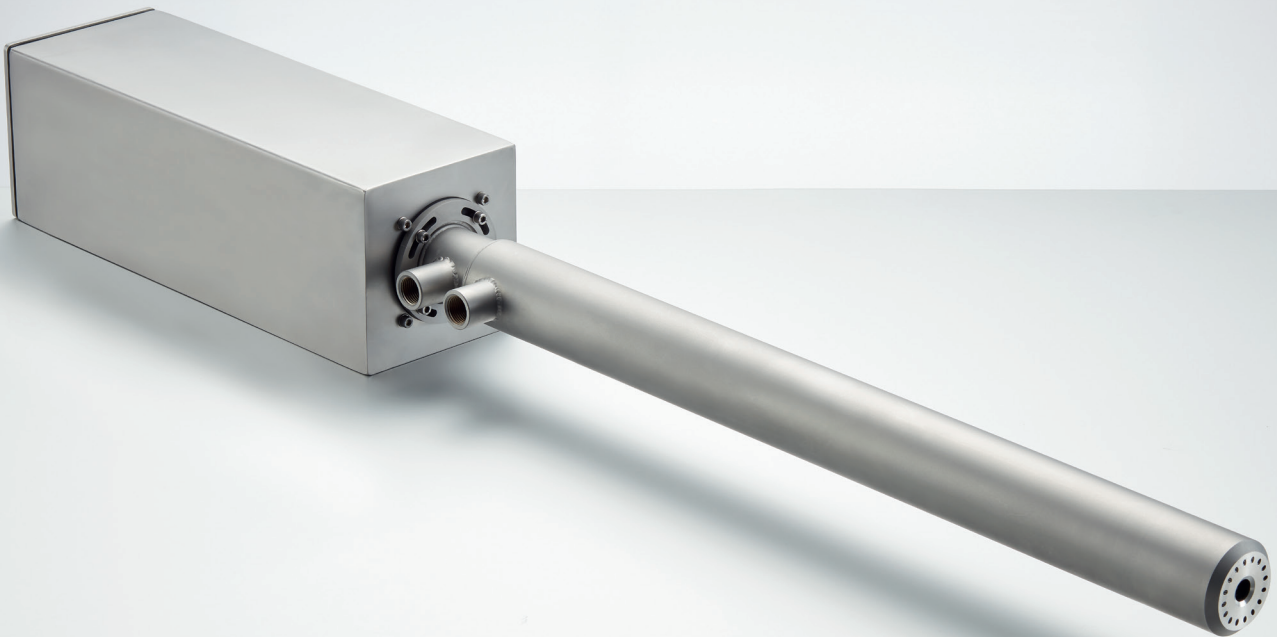


## **D-FS2** **Furnace Sensor VIS**

Thermography and Live-Video  
out of the combustion chamber

- Digital video output
- Water or air cooled up to 2000°C in the combustion chamber
- For integration in the D-VTA 200 Thermography System with a temperature measurement range of 800 °C up to 2000 °C
- Special endoscope with high optical resolution



## Features

- **Digital colour camera**  
High resolution with 1280 x 960 pixel
- **Application up to 2000 °C**  
Air and water cooled versions for use inside the combustion chamber
- **Different field of views (FOV)**  
Adaption of endoscope to the application
- **Lengths up to 1500 mm**  
For adaption to wall thickness and installation position
- **High availability**  
Technology developed for continuous (24/7) operation

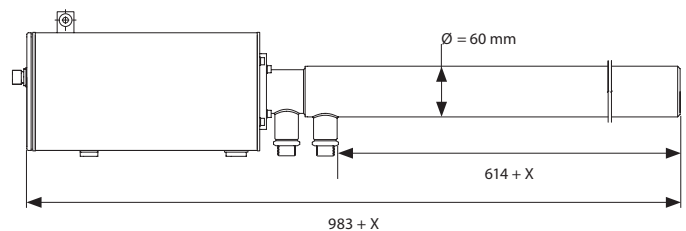
## Technical data

<b>Spectral range</b>	In the optically visible range of light (400 ... 700 nm)	
<b>Field of view</b>	90: 90°, 72°, 54° (diag., horiz., vert.) 60: 60°, 48°, 36° 30: 35°, 28°, 21° 6060: 60°, 48°, 36° (angled)	
<b>Video signal</b>	Resolution 1280 x 960 pixel Digital GigE Vision signal (IP)	
<b>Cooling</b>	W70: Water (Ø cooling jacket = 70 mm) A60: Air (Ø cooling jacket = 60 mm)	
<b>Length of cooling jacket</b>	700 mm 1100 mm 1500 mm	
<b>Special version</b>	Mobile	
<b>Measurement range with D-VTA 200 Software</b>	800 ... 2000 °C	
<b>Weight</b>	D-FS2 VIS ... W70-700 D-FS2 VIS ... A60-700	app. 12 kg app. 10 kg
<b>Max. temperature in combustion chamber</b>	D-FS2 VIS ... W70-xxxx D-FS2 VIS ... A60-xxxx	up to 2000 °C up to 1400 °C
<b>Temperature monitoring at endoscope tip</b>	PT100	
<b>Max. ambient temperature</b>	-30 ... +60 °C (optionally expandable)	
<b>Max. pressure in combustion chamber</b>	-100 ... +100 mbar	
<b>Cooling media (water cooled)</b>	Amount of cooling water Amount of purge air	>500 l/h >15 Nm <sup>3</sup> /h
<b>Cooling media (air cooled)</b>	Amount of cooling air Amount of purge air	>35 Nm <sup>3</sup> /h >15 Nm <sup>3</sup> /h

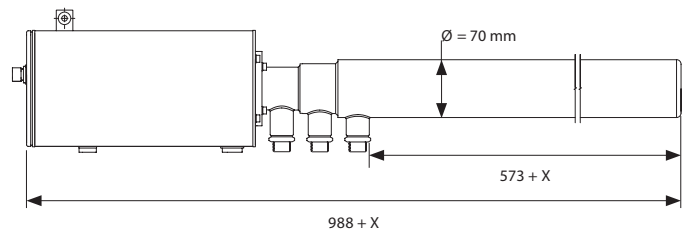
## Benefits

- **Brilliant live images**  
High resolution endoscope combined with modern digital camera: live video in real time
- **Flexible system**  
Optional upgrades with thermography and analysis modules, adaption to application possible
- **Wide view**  
Installation with protection tube in the furnace wall, no protection window necessary
- **Reliable and available**  
Automatic retraction from the combustion chamber with optional retraction unit

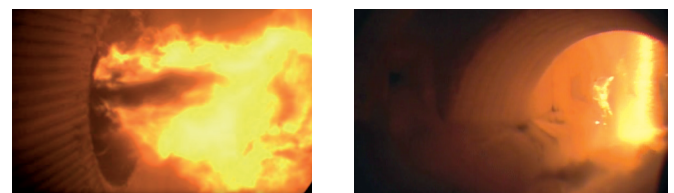
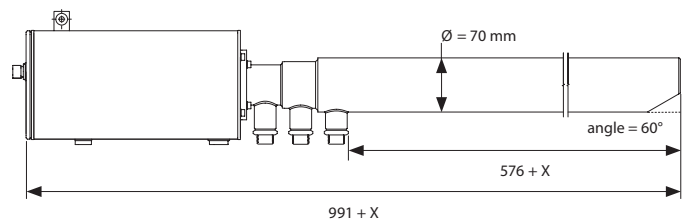
D-FS2 furnace sensor VIS | air cooled



D-FS2 furnace sensor VIS | water cooled



D-FS2 furnace sensor VIS | water cooled, angled



Pictures: hard coal burner (left) cement clinker cooler (right)