

D-FS 50 Furnace Camera

Live video out of the combustion chamber

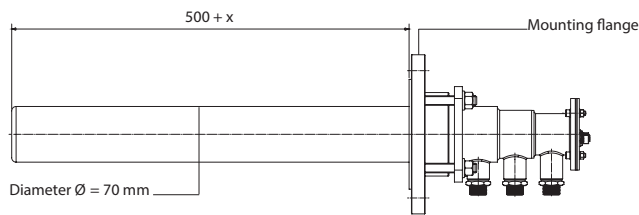
- ▶ Fast detection of process changes and radiation changes
- ▶ Digital camera – much higher resolution than PAL/NTSC
- ▶ Process temperatures till 2000 °C



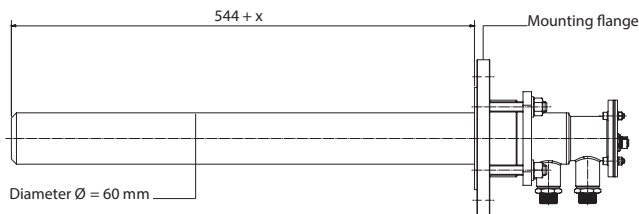
Features

- ▶ **Up to 2000 °C**
Air and water-cooled versions for use inside the combustion chamber
- ▶ **Different FOV (field of view)**
Adaptation of the lens system to the application
- ▶ **Digital colour camera**
Progressive Scan with 1280 x 960
- ▶ **PT100**
Monitoring of temperature at sensor tip
- ▶ **Length up to 1500 mm (60")**
Different lengths for adaptation to wall thickness and installation position
- ▶ **Modular design**
Minimises repair costs in the extreme case of a permanent cooling media failure – sapphire window separately replaceable

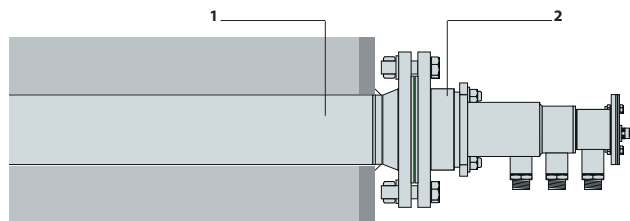
D-FS 50 water cooled



D-FS 50 air cooled



Mounting flange



Water cooled: Flange DN80 PN10 with protection tube (1)
Mounting flange W70-DN80 (2)

Air cooled: Flange DN65 PN16 with protection tube (1)
Mounting flange A60-DN65 (2)

Benefits

- ▶ **Brilliant live images**
High resolution lens, perfectly suited for low-light, combined with modern digital camera: live video in real time
- ▶ **Detection of radiation changes**
Due to the non automatic but remotely controlled exposure time radiation changes of the process or the flames can be detected immediately
- ▶ **Wide view**
Installation with protection tube in the furnace wall, no protection window necessary
- ▶ **Low maintenance**
No retraction unit necessary – special high temperature lens survives short interruptions of cooling media without damage
- ▶ **Flexible system**
Optional upgrades with Thermography and Analysis Modules, adaptation to the application possible

Technical data

Video System Resolution (Standard)	1280 x 960
Field of view	90: 90°, 72°, 54° (diag., horiz., vert.) 60: 60°, 48°, 36° 30: 35°, 28°, 21°
Max. penetration depth (see drawing)	
D-FS 50 ... 700	x = 0 mm
D-FS 50 ... 1100	x = 420 mm
D-FS 50 ... 1500	x = 840 mm
Weight	
D-FS 50 ... W70-700	6.4 kg
D-FS 50 ... A60-700	4.2 kg
Max. temperature in combustion chamber	
D-FS 50 ... W70-xxxx	up to 2000 °C (3632 °F)
D-FS 50 ... A60-xxxx	up to 1600 °C (2912 °F)
Max. ambient temperature	
without purge air	-30 ... +45 °C (113 °F)
with purge air <40 °C	-30 ... +80 °C (176 °F)
Maximum pressure in the furnace	-100 ... +100 mbar
D-FS 50 (water cooled)	
Amount of cooling water	>500 l/h@<45 °C (113 °F)
Amount of purge air	>10 Nm ³ /h@T<45 °C (113 °F)
D-FS 50 (air cooled)	
Amount of cooling water	>30 Nm ³ /h@T<60 °C (140 °F)
Amount of purge air	>10 Nm ³ /h@T<45 °C (113 °C)