

AS56-F

Single Channel Absorption Probe



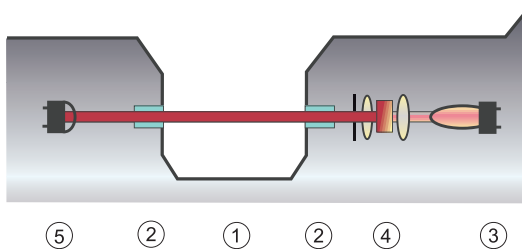
- Inline real-time process monitoring
- Superior sapphire window with no seals, gaps or crevices
- Extremely low maintenance
- CIP/SIP-compatible
- All wetted material and surface finishes are certifiable and traceable

The model AS56-F is a high-precision, single channel absorption probe. The stainless steel probe, equipped with an Ingold-style port, is designed for use in vessels or inline applications.

The AS56-F uses the light in the visible (VIS) range at a selected wavelength of 430 nm. A precisely defined, constant light beam penetrates the process medium. The attenuation of the light intensity, caused by absorption and/or scattering by dissolved and undissolved substances, is detected by a hermetically sealed photodiode.

An optical filter on the lamp side adapts the wavelength for specific applications and allows color measurements with great accuracy (e.g. phase separation beer/water) at 430 nm.

The seal-less, sapphire window design eliminates crevices and gaps to assure the highest level of sterility, cleanability and sensor integrity. The sapphire window provides superior resistance to all abrasive and corrosive media. The probe body demonstrates extreme durability and fulfills the CIP/SIP requirements demanded by ultra-sanitary process environments.



Type AS56-F

- 1 Optical path length (OPL)
- 2 Sapphire windows
- 3 Lamp
- 4 Optics module with Filter
- 5 Detector

Technical Data

AS56-F Probe



Material:

Wetted parts: stainless steel 1.4435 (SS 316 L)
 Surface: electro-polished Ra < 0.8 μm
 Windows: sapphire (without gasket)
 Housing: stainless steel 1.4571 (SS 316 Ti)

Port gasket:

O-ring Ø 18.64 x 3.53 mm

Gasket material:

application specific, selection by end user

Permitted:

EPDM (FDA), Silicone (FDA), Kalrez 6375, Chemraz (FDA), others on request

Port connection:

for ports AS25-GS60 (similar to Ingold-Ports)
 Diameter: 25 mm (Ø 25 H7)
 Nominal length: 60 and 30 mm
 Thread: G11/4" ISO 228/1

Insertion depth maximal:

OPL + 35 mm with port length 60 mm

Optical path length (OPL):

5 or 10 mm

Pressure rating:

PN10 (Test pressure PT 15 bar)

Permitted pressure PS:

10 mbar - 10 bar with TS 0 °C / +90 °C

Permitted pressure at elevated temperature:

TS [°C]	< 90	100
PS [bar]	10	8

Permitted process temperature TS:

- permanent: 0 °C to +90 °C, (+32 °F to +194 °F)
- peak (60 min/day): 0 °C to +100 °C, (+32 °F to +212 °F)

Ambient temperature:

- operation: 0 °C to +40 °C, (+32 °F to +104 °F)
- transportation: -20 °C to +70 °C, (-4 °F to +158 °F)

Air purge:

connections M5 available as standard

Light source:

incandescent tungsten lamp: 5.0 V DC, 450 mA

Wavelength range:

430 nm

Detector:

silicon photodiode, hermetically sealed

Measuring range:

sensor specific
 0 - 1 CU

Cable connection:

probe cable ASx6-TT, end splice on both sides
 probe cable ASx6-SCT, with stainless steel plug and socket
 2, 3, 5, 10, 15, 20, ... 45 or 50 m
 (7, 10, 16, 33, 49, 66, ...148 or 164 ft.),

Weight:

- Probe: approx. 2.0 – 2.5 kg, depending on version
- Cable set: approx. 1.5 kg / 10 m

Type of protection:

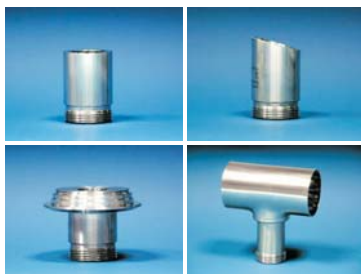
IP65

Certificates:

ISO 9001:2000, PED, CE, HPO

Use with C4000 or 156 converter!

Options



- Weld-in ports AS25 installation angle 0° or 15°
- Adapter-Varivent 50/0.0 AS25-G60
- Adapter-Clamp 2.0" AS25-G60
- T-pieces with port AS25-G60 for tube ends OD, 2.0" – 6.0"
- Sealing flange AS25
- T-pieces with port AS25-G60 for tube ends DIN, DN50 – DN150