

AS56-N

Single Channel NIR Absorption Probe



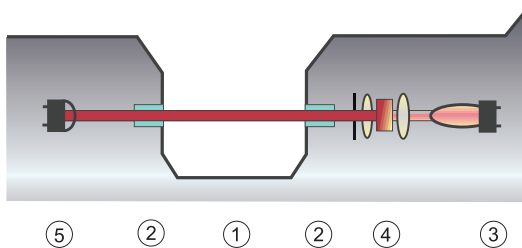
- Inline real-time process monitoring
- Superior sapphire window with no seals, gaps or crevices
- Concentration measurement insensitive to color changes
- Extremely low maintenance
- CIP/SIP-compatible
- All wetted material and surface finishes are certifiable and traceable

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

The AS56-N uses light in the Near Infrared (NIR) from 730 to 970 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.

The optical filter on the lamp side adapts the wavelength for specific applications and allows color insensitive concentration measurements in the Near Infrared range. The AS56-N is available with two different optical path lengths (OPL) for process versatility.

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



Type AS56-N

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

Technical Data

AS56-N 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:

730 - 970 nm

Detector:

silicon photodiode, hermetically sealed

Measuring range:

sensor specific
 0 - 3 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:

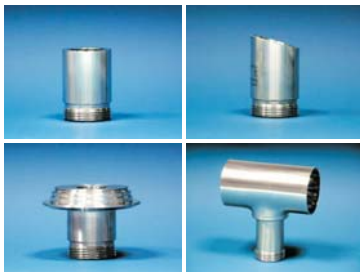
IP65

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