



Portable sample probes type Smartline

In addition to stationary analysers, gas analysis for monitoring emissions also uses portable methods. The actual measuring task determines the complexity of the sampling/analysis units. Since not all control points are easy to access, operators are interested in suitable and light equipment with a small pack size. Even under this premise, extracting the sample gas must meet high standards to ensure the measurements are reliable.

The Smartline series of portable gas sampling probes features a lightweight, self-regulating or temperature controlled heated sample gas line with built-in particle filter.

Portable probe and heated line as all-in-one solution for mobile applications

Designed for sample measurements

Also suitable for control measurements or continuous sampling

Self-regulating or temperature-controlled heated

Also ideal for service companies

Built-in, heated filter element

Low weight

Reduced maintenance

Stack mounting possible

Tool-less filter element change

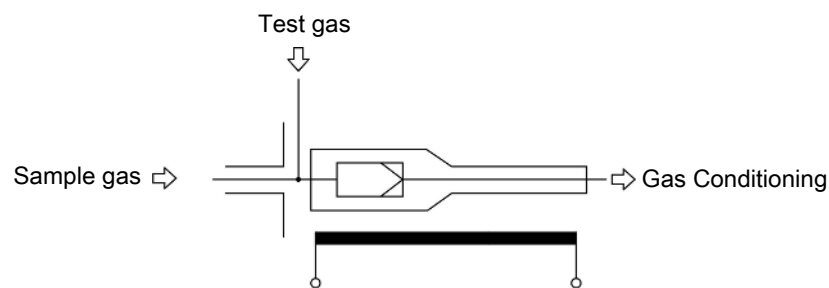
Space-saving version for sampling with high moisture content

Option: Test gas function option on input end

Option: Transport case



Flow chart



Technical Data

Smartline Technical Data

| | |
|----------------------------|--|
| Warm up time at 77 °F | approx. 30 minutes |
| Ambient temperature | -4 °F to 104 °F |
| Max. operating temperature | Varies by heating tube type, see type plate |
| Heater | controllable with Pt100, 100 W/m, max. 356 °F self-regulating, 60 W/m, 248 °F |
| Dust load | max. 2 g/m ³ |
| Temperature inside stack | max. 752 °F – 1922 °F, varies by sampling tube, see spare parts and accessories |
| Pressure | max. 87 psi |
| Protection class | IP 54 |

Electrical specifications

Electric supply

| | |
|--|--|
| Voltage (optional supply via portable conditioning PCS.smart) | 230 V AC - 60 W/m or 100 W/m +/- 10% 115 V AC - 60 W/m or 100 W/m +/- 10% |
| Length | 1 m (3.2 ft) |

Mechanical specifications

| | |
|-----------------------|---|
| Heating tube diameter | approx. 1.26 in |
| Heating tube length | 3 (9.8 ft) or 5 m (16.4 ft) |
| Weight | approx. 5.1 lb at 3 m (9.8 ft) length approx. 8.2 lb at 5 m (16.4 ft) length |

Materials

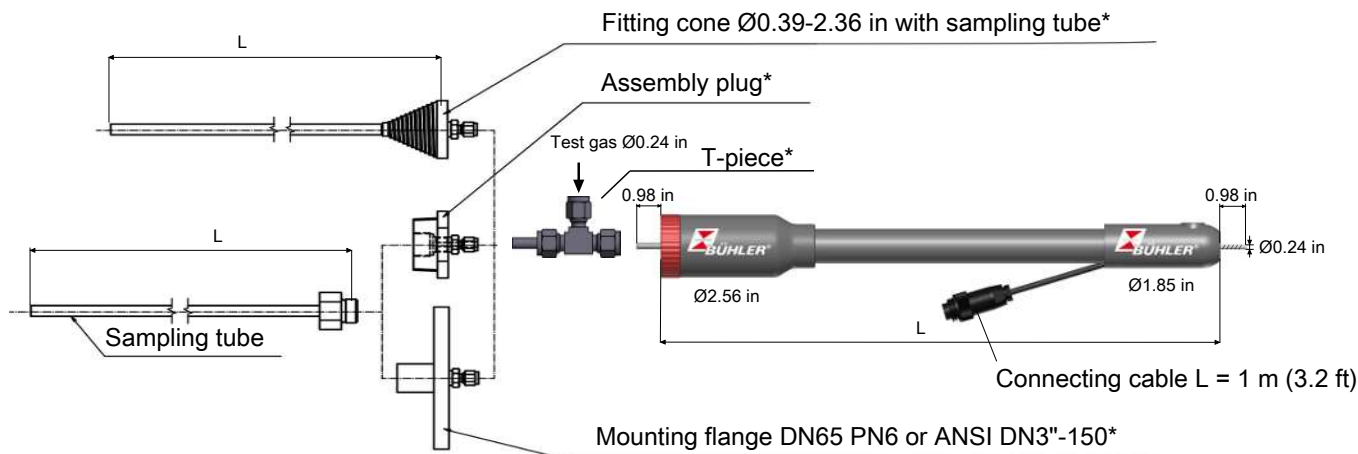
| | |
|-------------------------------|--|
| Material | Silicone, PTFE, stainless steel, polyamide |
| Parts in contact with mediums | Stainless steel 1.4571, 1.4404, 1.4305, PTFE |
| Bend radius | min. 5.51 in |
| PTFE core | DN 4/6 |
| End termination | Stainless steel, Ø0.24 in |

Transport case (accessory)

| | |
|------------------------------------|--|
| Outside dimensions | approx. 22.64 in x 18.5 in x 8.07 in |
| with space for the following parts | Smartline 3 m (9.8 ft)/5 m (16.4 ft), 3 x filter element, 2 x sampling tube, 2 x assembly plug, 2 x mounting flange, mounting bracket with chain, T-piece with insulation, 2 x compartment for small parts, operating instructions |

Smartline

Drawing



Mounting bracket with 2 m (6.6 ft) chain*

Insulating sleeve for T-piece 0.24 in*



*optional

Ordering instructions

The item number is a code for the configuration of your unit. Please use the following model key.

| Item no. | Smartline | | | | | | |
|----------|-----------|---|---|---|---|---|--|
| 4677 | X | X | X | X | 0 | 0 | Product Characteristics |
| | | | | | | | Voltage |
| | 1 | | | | | | 115 V AC |
| | 2 | | | | | | 230 V AC |
| | | | | | | | Length |
| | 3 | | | | | | 3 m (9.8 ft) |
| | 5 | | | | | | 5 m (16.4 ft) |
| | | | | | | | Temperature control |
| | 1 | | | | | | self-regulating (120 °C/248 °F) |
| | 2 | | | | | | regulated (max. 180 °C/356 °F) ¹⁾ |
| | | | | | | | End termination |
| | 1 | | | | | | Ø6 mm tube |
| | 2 | | | | | | Quick-Lock female (ideal for PCS.smart) |

¹⁾ Temperature controller required.

Other lengths and styles available upon request!

Filter element required for operation (see notes under "Spare Parts and Accessories").

Spare parts and accessories

| Item no. | Description |
|--------------|--|
| 46770070 | Transport case |
| | Filter elements |
| 46770020 | Sintered metal filter element incl. seals; Material: 1.4404/Viton |
| 46770030 | Ceramic filter element incl. seals; Material: Ceramic/Viton |
| | Sampling tubes |
| 467700030500 | Tapered assembly plug \varnothing 20-60 (0.79-2.36 in) with sampling tube; Material: 1.4571/1.4401; length 500 mm (19.69 in) |
| 467700060500 | Tapered assembly plug \varnothing 20-60 (0.79-2.36 in) with sampling tube; length 500 mm (19.69 in) Material: Hastelloy/1.4571/1.4401 |
| 462220010500 | Sampling tube length 500 mm (19.69 in), material: 1.4571, T _{max} 600 °C |
| 462220060500 | Sampling tube length 500 mm (19.69 in), material: Hastelloy, T _{max} 400 °C |
| 462220040500 | Sampling tube length 500 mm (19.69 in), material: Inconel, T _{max} 1050 °C |
| | For more sampling tubes see accessory data sheet for sample gas probes DB461099 |
| | Mounting accessories |
| 46770004 | Assembly plug R2; Material: 1.4571/1.4401 |
| 46770001 | Mounting flange DN65 PN6; Material: 1.4571/1.4401 |
| 46770002 | Mounting flange ANSI DN3"-150; Material: 1.4571/1.4401 |
| 46770005 | Mounting bracket with 2 m (6.6 ft) chain; EPDM/galvanised steel |
| 46770060 | T-piece, 6 mm (0.24 in), stainless steel material for test gas |
| 46770050 | Insulating sleeve for T-piece |
| 467700202 | Seal kit, Viton material for FE sintered metal |
| 467700302 | Seal kit, Viton material for FE ceramic |
| 9146100267 | Flange socket 6-pin + PE |
| 467707 | Screw cap O-ring |