



## Heated sample gas line

The most common problems in gas analysis systems are related to sample gas conditioning and the sampling lines. Condensate in the sample gas, adsorption and contamination from the sample gas line can affect the accuracy of measurements considerably.

Sampling lines transport the sample gas from the sampling point to the gas conditioner or the analyser. The heated sampling lines keep the temperature of the sample gas above the dew point or the reaction temperature, preventing gas condensation in the analysis system. Condensation must be prevented in the sampling lines for accurate, reliable measurements.

Our experts will gladly advise you on selecting suitable sampling lines and other components for your specific application.

Proven, reliable sampling line

Corrugated PA outer sheath standard

Self-regulating lines at 65 °C (149 °F) and 120 °C (248 °F)

Regulated lines up to 200 °C (392 °F)

Pt100 standard, thermal element optional

Atex Zone 1 lines available

PTFE- and VA core standard

Double and replaceable cores available

Options with additional power supply and sensor line

Helpful options such as insufficient temperature contact, plug and screw connections

Helpful accessories such as insulating sleeves and transitional heaters



## Technical Data

### Heated lines for non-explosive applications

#### Self-regulating lines

|                             |                                                                                                                                                                                                                                 |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Voltage:                    | 230 V/50 Hz or 115 V/60 Hz                                                                                                                                                                                                      |
| Max. operating temperature: | 65 °C (149 °F): Output 25 W/m<br>120 °C (248 °F): Output 60 W/m                                                                                                                                                                 |
| Materials/lengths:          | End caps silicone, cable end sleeves, connecting cable length 2 m (3.28 ft), sheath corrugated PA tube<br>Core: PTFE DN 4/6 and stainless steel (1.4571) 6 mm (0.24 in), fixed, 500 mm (19.69 in) unheated protrusion both ends |

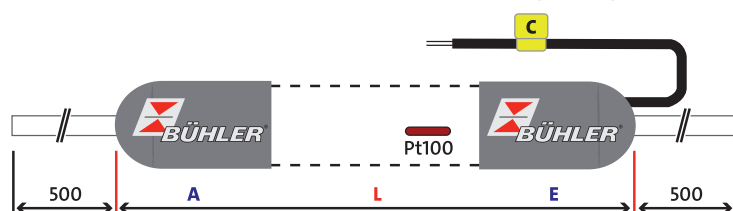
#### Controllable lines

|                             |                                                                                                                                                                                                                                 |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Voltage:                    | 230 V/50 Hz or 115 V/60 Hz                                                                                                                                                                                                      |
| Max. operating temperature: | 200 °C (392 °F): Output 100 W/m                                                                                                                                                                                                 |
| Sensor:                     | 1 x Pt100 (2-lead) standard (others available upon request)                                                                                                                                                                     |
| Materials/lengths:          | End caps silicone, cable end sleeves, connecting cable length 2 m (6.56 ft), sheath corrugated PA tube<br>Core: PTFE DN 4/6 and stainless steel (1.4571) 6 mm (0.24 in), fixed, 500 mm (19.69 in) unheated protrusion both ends |

Other dimensions, materials and replaceable core available upon request.

## Dimensions

Schematic heated line construction. The Pt100 only is only installed standard in the controllable line.



## Ordering Instructions

| Item no.   | Type                               |
|------------|------------------------------------|
| 485000XXXX | self-regulating to 65 °C (149 °F)  |
| 485001XXXX | self-regulating to 120 °C (248 °F) |
| 485012XXXX | controllable up to 200 °C (392 °F) |



Item numbers of lines only for non-explosive gases and environments. Lines for use in explosive areas available upon request.

XXXX indicates consecutive numbering. Please contact us for the version you require.

Special types available upon request.

### Temperature controller for use in controllable lines type 485012XXXX

| Item no.   | Model                                                                                                                                                                                                             |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4853000031 | Temperature controller for wall mounting<br>Mains connection via 1.5 m (4.9 ft) cable with Schuko plug, heating connection via 6+PE flange socket<br>Rated voltage 90...260 V AC 50/60 Hz, switching current 10 A |
| 4853000032 | Temperature controller for wall mounting<br>Mains connection via 1.5 m (4.9 ft) cable with Schuko plug, heating connection via 4+PE flange socket<br>Rated voltage 90...260 V AC 50/60 Hz, switching current 16 A |
| 4853000038 | Temperature controller for wall mounting<br>Cable glands and screw terminals<br>Rated voltage 90...260 V AC 50/60 Hz, switching current 40 A                                                                      |

### Helpful accessories for connecting heated lines

A suitable connection between heated lines requires thermal insulation or active heating between the unheated ends. Silicone foam insulating sleeves are available for this purpose. If passive insulation is inadequate, you may choose a self-regulating transitional heater.

#### Insulating Sleeve



#### Technical Data - Insulating Sleeve

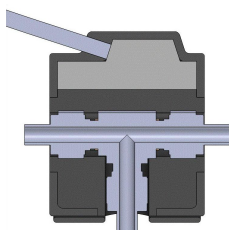
|              |                   |
|--------------|-------------------|
| Type:        | ID 20 mm/OD 42 mm |
| Length:      | 80 mm (3.15 in)   |
| Item number: | 4853000016        |

#### Self-regulating transitional heater

Outside view



Inside view



The self-regulating transitional heater can be used for cutting ring fittings as well as tubes and pipes with an outside diameter of 6 mm (0.24 in), 8 mm (0.31 in) and 1/4". The construction allows heating straight connectors, 90° elbows as well as T-fittings.

#### Technical Data - Self-Regulating Transitional Heater

|                                  |                                                                                         |
|----------------------------------|-----------------------------------------------------------------------------------------|
| Material:                        | Silicone (elastic)                                                                      |
| Ambient temperature:             | -60 °C to +200 °C (-76 °F to 392 °F)                                                    |
| Operating temperature:           | +200 °C (392 °F) (self-regulating)                                                      |
| Voltage:                         | 230V <sub>AC</sub> / 115V <sub>AC</sub>                                                 |
| Electrical connection:           | 1 m (3.28 ft) silicone cable with cable ends, protection rating II                      |
| International protection rating: | IP62                                                                                    |
| Dimensions:                      | Ø <sub>o</sub> = 63 mm (2.48 in), Ø <sub>i</sub> = 17 mm (0.67 in), L = 60 mm (2.36 in) |
| Item number:                     | 4853000017                                                                              |