

**Description**

Extended calorimetric monitoring head with variable immersion depth for Flow Meter FC100-CA, suitable for use in pipelines with process connections DN 50 plus.

**Caution:** Fix with locking set 01 (see accessories).

**Features**

- Medium temperature range  
Stainless steel version: -40 °C ... +130 °C/-40 °F ... +266 °F
- Material: stainless steel 1.4571/AISI 316 Ti
- Not suitable for carbon dioxide and argon!

**Monitoring head CSF**



**CSF-11**  
variable immersion depth

**Ordering information**

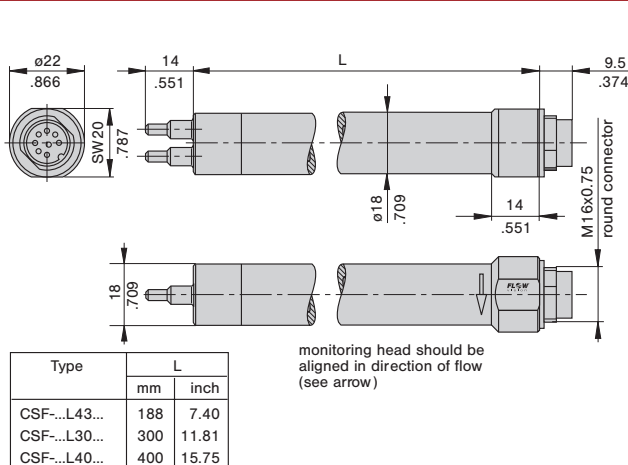
<b>Type</b>	<b>CSF</b>	Extended monitoring head with calorimetric sensors
<b>Monitoring head design</b>		
	<b>11</b>	Monitoring head with variable immersion depth
<b>Medium</b>		
	<b>A</b>	air
<b>Material of areas exposed to medium</b>		
	<b>M1</b>	stainless steel 1.4571/AISI 316 Ti
	<b>M2</b>	nickel-base alloy Hastelloy alloy C4 2.4610
<b>Process connection</b>		
	<b>00</b>	without flange; see accessories for connections
<b>Length of shank/thread</b>		
	<b>L43</b>	188 mm (standard) other lengths upon request
<b>Electrical connection</b>		
	<b>E10</b>	round connector with tinned contacts (plug and cable to order separately)
<b>Certification</b>		
	<b>T0</b>	without certificate (standard *)
<b>Specification of medium</b>		
	<b>xxx</b>	
CSF - 11 A M1 00 L43 E10 T0 - ... ordering example		

\*) for detailed information please see section 0

**Technical data**

Type of head	push-in
Shank diameter	18 mm/.709 in. without thread
Length of shank	188 mm/7.40 in.
Length of sensor	14 mm/.551 in.
Suitable for	air, compressed air, nitrogen, oxygen, methane, hydrogen and other gases (please enquire)
Temperature range*) (of gas)	-40 °C ... +130 °C/-40 °F ... +266 °F (stainless steel)
Temperature drift of sensor	± < 0.05 %/°K/measuring range (in the range between +20 °C ... +80 °C/ +68 °F ... +176 °F)
Measuring ranges:	depending on immersion depth;
Flow velocity range:	0 - 68 (100) Nm/s
Pressure resistance <sup>(1)</sup> (sensor)	100 bar/1450 psi (stainless steel)
Pressure resistance <sup>(1)</sup> (installation)	depending on connection (see accessories)
Degree of protection	connector <sup>(2)</sup> : IP67
Material	stainless steel 1.4571/AISI 316 Ti
Cable to electronic unit	LifYCY 4x2x0.2 mm <sup>2</sup> (AWG 24)

**Dimensions**



This is a metric design and millimeter dimensions take precedence (mm / inch)

<sup>(1)</sup> Admissible operating pressure DIN 2401, measured at max. temperature (= max. medium temperature)  
<sup>(2)</sup> with mating connector  
<sup>\*)</sup> max. +85 °C/+185 °F in the connector area

**Cable types 15/18 with connectors**



**Do + Ka type 15**  
**Do + Ka type 18**

**Description**

Cable between Flow Meter FC100-xxx and calorimetric monitoring head type CSF.

- Connection to monitoring head by means of 8-pole round connector
- Connection to FC100-xxx by means of 10-pole clamping connector (XSK)

**Technical data**

**Cable type 15**

**Features:** highly flexible, paired, fully shielded, electrical and thermal properties at +20 °C/+68 °F

Conductor resistance:	92 Ω/km
Insulation resistance:	20 MΩ x km
Operating voltage:	250 V
Withstand voltage:	500 V
Max. load:	2 A
Temperature range:	-10 °C ... +80 °C/+14 ° F ... +176 °F (processing and operation) -30 °C ... +80 °C/-22 ° F ... +176 °F (transport and storage)

**Cable type 18**

**Features:** non-halogenous, highly flexible, cold- and heat resistant, paired, fully shielded, electrical and thermal properties at +20 °C/+68 °F

Conductor resistance:	80 Ω/km
Insulation resistance:	1200 MΩ x km
Operating voltage:	300 V
Withstand voltage:	1500 V
Max. load:	3 A
Temperature range:	-50 °C ... +180 °C/-58 °F ... +356 °F

**Ordering information**

**Type** between calorimetric monitoring heads **CSF** and **FC100-CA, FC100-FH-CA**

<b>Do + Ka type 15</b>	<b>PVC</b> insulated cable, type LiFYCY 4x2x0.2 mm <sup>2</sup> (AWG 24) 8-pole round connector + 10-pole clamping connector
<b>Do + Ka type 18</b>	<b>silicone</b> insulated cable, type 4x2x0.2 mm <sup>2</sup> (AWG 24) 8-pole round connector + 10-pole clamping connector

**Available cable lengths**

<b>...m</b>	2 m, 3 m, 5 m, 8 m, 10 m, 15 m, 20 m, 25 m, 30 m, 40 m, 50 m, 60 m, 70 m, 80 m, 90 m, 100 m, 110 m, 120 m, 130 m, 140 m, 150 m, 160 m, 170 m, 180 m, 190 m, 200 m (up to max. 656 ft)
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**Do + Ka type 15 - 2 m** ordering example

A

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B