● Sampling Conditioning Systems ● Process Analytics
● System Integration ● Gas Generators ● FTIR-Analysers

conditioning systems

Heated hose JH3F and JH3FR

FEATURES

- ◆ Customized construction
- ◆ Robust construction
- ◆ Excellent isolation
- ◆ Rugged outer protection
- ◆ Long lifetime
- ◆ JH3F witn non replaceable core
- ◆ JH3FR with replaceable core

APPLICATION

The heated hose series JH3F has especially been developped for the gas analysis technology. The flexible heated hose transports the sample gas from the sampling point to the sample gas conditioning unit. The heated JH3F keeps the temperature of the sample gas above the water and acid dew point and therefore avoids condensation and ensures that none of the gas components are discharged or lost. The heated hose is available in different constructions and manufactured according to customer‘s specifications.

TECHNOLOGY

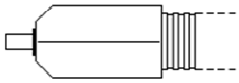
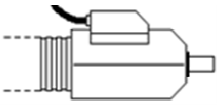
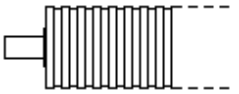
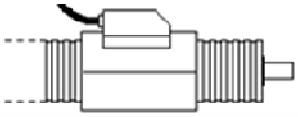
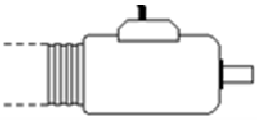
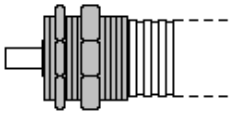
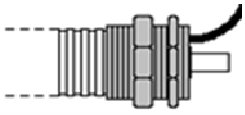
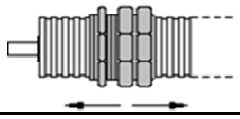
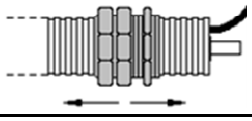
The basis of the heated hose is a smooth PTFE hose with one braided layer of stainless steel wire, which ensures high flexibility and is used as a bend protection. The stainless steel wire is wrapped with a PTFE isolated heating conductor, which is protected against humidity and is used for an optimum temperature distribution.

A reinforced thermovlies is used as a thermal isolation and ensures low heat losses. As an outer protection an abrasion-proof, UV resistant, non halogen and non-slip PA corrugated hose is used. A thermo element type K (NiCr-Ni) or a PT100 is used as a temperature sensor.

FEATURES

The electrical and thermal construction of the heated hose allows operating temperatures of up to 200℃. JCT can offer a multitude of end configurations for, which ensure easy integration in an existing analysis system. The heated hose JH3FR features a replaceable inner core, which allows an easy replacement at site in the case of contamination. Typical applications for the heated hose series JH3F are emission and process monitoring for mobile application and for fixed installation.

TECHNICAL DATA

Specification of end configuration						see note	see note
Side 2 (without cable)		Side 1 (feed cable)			Type	**JH3F**	**JH3FR**
F			A		hard cap	p RSL	p
G			B		hard cap (stepped)	p RSL	p
H			C		silicone cap	p RSL	p
I			D		PG36	p RSL	p
J			E		moveable PG42	P RSL	P

Note: p ... PTFE core 200 mm protruded
RSL ... SS 316 stubs, tube connector

JH3F with non replaceable PTFE core
JH3FR with replaceable PTFE core

DIMENSIONS OF HARD CAPS

NON REPLACEABLE CORE - TYPE JH3F

Diameter of heated hose	Length	Outer diameter without cable (Type F)	Outer diameter with feed cable (Type A und B)
DN 4/6 mm	110 mm	51 mm	75 mm
DN 6/8 mm	110 mm	51 mm	75 mm

REPLACEABLE CORE - TYPE JH3FR

Diameter of heated hose	Length	Outer diameter without cable (Type F)	Outer diameter with feed cable (Type A und B)
DN 4/6 mm	110 mm	51 mm	75 mm
DN 6/8 mm	120 mm	54 mm	79 mm

DIMENSIONS OF SILICONE CAPS

NON REPLACEABLE CORE - TYPE JH3F

Diameter of heated hose	Length	Outer diameter without cable (Type H)	Outer diameter with feed cable (Type C)
DN 4/6 mm	89 mm	46 mm	66 mm
DN 6/8 mm	89 mm	46 mm	66 mm

REPLACEABLE CORE - TYPE JH3FR

Diameter of heated hose	Length	Outer diameter without cable (Type H)	Outer diameter with feed cable (Type C)
DN 4/6 mm	89 mm	46 mm	66 mm
DN 6/8 mm	89 mm	46 mm	66 mm

SPECIFICATIONS

Operating temperature	Max. 200℃
Max. operating pressure	10 bar
Ambient temperature	-40℃ - +60℃
Application	Mobile and fixed installation indoor and outdoor
Core	PTFE; Optional: PFA
Heating conductor	Construction according to DIN, protected against humidity, with braided protection
Thermal isolation	Thermovlies
Outer protection	PA corrugated hose
End configuration	Hard caps, Silikone caps, PG36 or PG42 (see above)

SPECIFICATIONS

Feed cable	3 m long with 7-pin connector
Connector types	7-pin connector for connection of temperature controller HT43 and HT55 HANQ8-connector for connection of temperature controller HT41
Power supply	230 VAC or 115 VAC
Power consumption	100 W/meter
Length	Up to 50 m
Outer diameter	DN 4/6 mm: 42 mm DN 6/8 mm: 42 mm
Minimum bending radius JH3F / JH3FR	DN 4/6 mm: 50 mm / 100 mm DN 6/8 mm: 75 mm / 120 mm

ORDER CODE

ORDER CODE JH3F										
Temperature sensor PT100	2									
Temperature sensor PT100 + limiter	3									
Temperature sensor NiCr-Ni	4									
2 x Temperature sensor PT100	9									
Outer protection PA corrugated hose		3								
Without endconfiguration, core 200 mm protruded			0							
Stainless steel stubs approx. 30 mm long			6							
Length in dm (e.g.: 10 m = 100; 4,5 m = 045)				XXX						
Diameter DN 4/6 mm					4					
Diameter DN 6/8 mm					6					
PTFE core						PTFE				
PFA core						PFA				
Power supply 230 V/50-60 Hz							2			
Power supply 115 V/50-60 Hz							1			
End configuration side 2 (without cable)								F		
End configuration side 2 (without cable)								G		
End configuration side 2 (without cable)								H		
End configuration side 2 (without cable)								I		
End configuration side 2 (without cable)								J		
End configuration side 1 (feed cable)									A	
End configuration side 1 (feed cable)									B	
End configuration side 1 (feed cable)									C	
End configuration side 1 (feed cable)									D	
End configuration side 1 (feed cable)									E	
Without calibration gas inlet										0
Calibration gas inlet 2/3 mm										2
Calibration gas inlet 4/6 mm										4

Order code	JH3F									

ORDER CODE

ORDER CODE JH3FR										
Temperature sensor PT100	2									
Temperature sensor PT100 + limiter	3									
Temperature sensor NiCr-Ni	4									
2 x Temperature sensor PT100	9									
Outer protection PA corrugated hose		3								
Without endconfiguration, core 200 mm protruded			0							
Length in dm (e.g.: 10 m = 100; 4,5 m = 045)				XXX						
Diameter DN 4/6 mm					4					
Diameter DN 6/8 mm					6					
PTFE core						PTFE				
PFA core						PFA				
Power supply 230 V/50-60 Hz							2			
Power supply 115 V/50-60 Hz							1			
End configuration side 2 (without cable)								F		
End configuration side 2 (without cable)								G		
End configuration side 2 (without cable)								H		
End configuration side 2 (without cable)								I		
End configuration side 2 (without cable)								J		
End configuration side 1 (feed cable)									A	
End configuration side 1 (feed cable)									B	
End configuration side 1 (feed cable)									C	
End configuration side 1 (feed cable)									D	
End configuration side 1 (feed cable)									E	
Without calibration gas inlet										0
Calibration gas inlet 2/3 mm										2
Calibration gas inlet 4/6 mm										4

Order code	JH3FR										

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