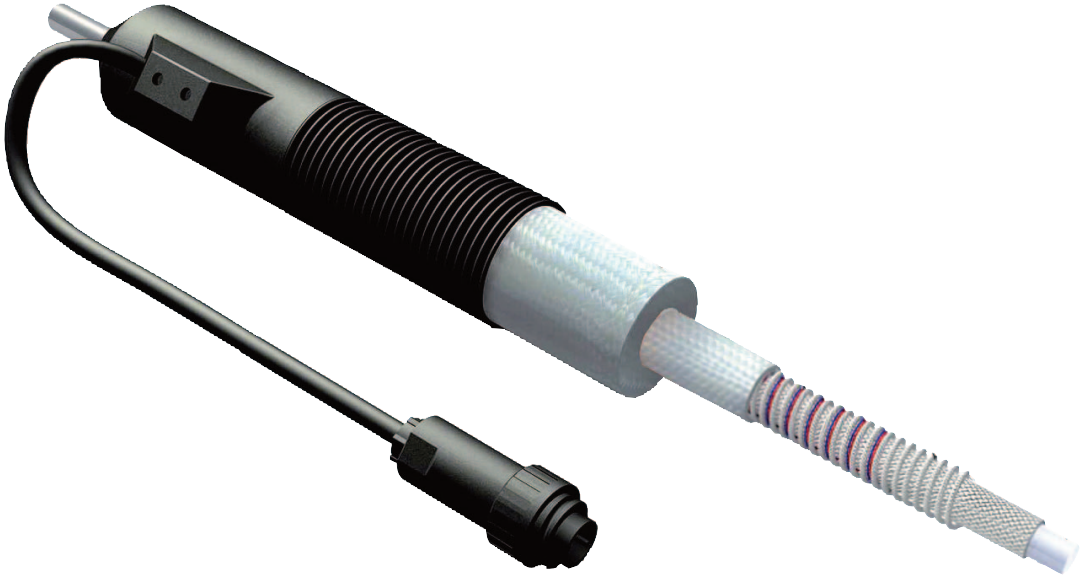
JH3F & JH3FR
Heated Sample Lines with PA-Corrugated Hose

JCT Analysentechnik



Gas Sampling Probes
Heated Sample Lines
Sample Gas Coolers
Condensate Treatment
Accessories
Gas Conditioning Systems
Sample Gas Converters

APPLICATION

- Extractive gas analysis
- Emission and process monitoring
- Transport of sample gas from sample point to analysis system
- To stay safely above the acid dew point
- Protection against measured value falsification and frost
- Indoor and outdoor use

FEATURES

- Regulated heatable to max. 200 °C
- External protection corrugated jacket of Polyamide
- Heat insulation with thermo fleece
- Ready for use
- Interchangeable inner core for JH3FR
- Second core for e.g. calibration gas as option
- Inner core reinforced with stainless steel braid

BENEFITS

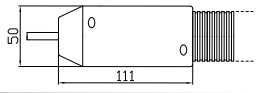
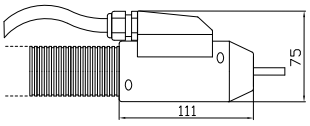
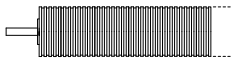
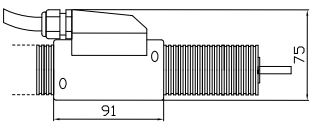
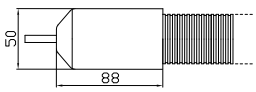
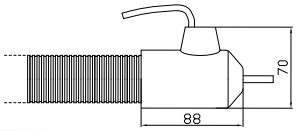
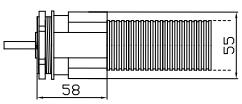
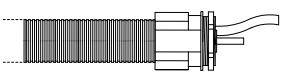
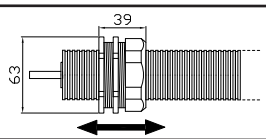
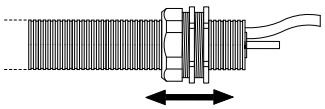
- No condensate formation, no freezing
- Robust external protection
- Excellent insulation
- Optimal heat deployment
- Customer-specific executions
- Easy exchange of the inner core (JH3FR)
- Long lifetime
- Kink protection

TECHNICAL DATA

Model	JH3F	JH3FR
Description	regulated heated sample line	
External protection jacket	corrugated polyamide jacket, black	
Inner core	fixed	interchangeable
Area of application	mobile and fixed installation indoor and outdoor	
Operation data		
Operating temperature	max. 200 °C	
Operating pressure	max. 10 bara	
Ambient temperature*	–30° to +60 °C	
Construction		
Material inner core	PTFE, optional PFA	
Heating element	design according to DIN moisture proof with protection braid	
Thermal insulation	thermo fleece	
End configuration	PA hard caps, silicone caps, PG36 or PG42 (see table below)	
Maximum sample line length*	50 m	
Diameter core / sample line outside	DN 4/6 mm / 42 mm DN 6/8 mm / 42 mm	
Minimum bending radius JH3F / JH3FR	DN 4/6 mm: 100 mm / 150 mm DN 6/8 mm: 150 mm / 200 mm	
Dimensions of silicone caps	DN 4/6: L = 88 mm, Ø 50 mm (H), Ø 70 mm (C) DN 6/8: L = 88 mm, Ø 50 mm (H), Ø 70 mm (C)	
Dimensions of PA hard caps	DN 4/6: L = 111, Ø 50 (F), Ø 75 (A/B) DN 6/8: L = 111, Ø 50 (F), Ø 75 (A/B)	DN 4/6: L = 111, Ø 50 (F), Ø 75 (A/B) DN 6/8: L = 120, Ø 54 (F), Ø 79 (A/B)
Protection class	IP44 (EN60529)	
Electrics		
Power supply	230 VAC 50/60 Hz or 115 VAC 50/60 Hz	
Power consumption	100 W/m	
Connection cable	3 m	
Connection plug	7-pole plug for connection of temperature controller HT-43 and HT-55 HANQ8-plug for connection of temperature controller HT-41	

* To achieve extended length **JCT** offers heated lines with reduced power (W/m) or with a second heating circuit. For lower ambient temperatures versions with higher performance are available. Please consult **JCT** sales team.

End configuration of sample line

Without electrical connection (side 2)		With electrical connection (side 1)		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	movable PG42	p RSL	p

JH3F with non interchangeable inner core JH3FR with interchangeable core
p = PTFE core, 200 mm protruded RSL = Stainless steel stubs, 30 mm long

ORDER CODE

JH3F

Temperature sensor PT100*	2
Temperature sensor PT100* + limiter (thermo switch in connection housing)	3
Temperature sensor NiCr-Ni type K*	4
2 x Temperature sensor PT100*	9
Outer protection corrugated PA jacket	3
Core 200 mm protruded	0
Stainless steel stubs 30 mm long	6
Line length** without protrusion 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 VAC / 50/60 Hz	2
Power supply 115 VAC / 50/60 Hz	1
End configuration side 2 type F (without electrical connection)	F
End configuration side 2 type G (without electrical connection)	G
End configuration side 2 type H (without electrical connection)	H
End configuration side 2 type I (without electrical connection)	I
End configuration side 2 type J (without electrical connection)	J
End configuration side 1 type A (with electrical connection)	A
End configuration side 1 type B (with electrical connection)	B
End configuration side 1 type C (with electrical connection)	C
End configuration side 1 type D (with electrical connection)	D
End configuration side 1 type E (with electrical connection)	E
Without calibration core	0
Calibration core DN 2/3 mm	2
Calibration core DN 4/6 mm	4
Without strain relief	0
With strain relief***	Q16
Order code	3

* Temperature sensor position at line length up to 10 m = 0.3 m from electrical connection, at line length > 10 m = 3 m from electrical connection, others on request

** the specified hose length is determined as follows:
1) for heated hoses with fittings - the heated hose length including the fittings
2) for heated hoses without fittings - the heated hose length including the end terminations
3) for heated hoses with core projection - the heated hose length incl. the end terminations (if necessary incl. fitting), the projection is shown separately
the length tolerance is +/-2 % without special specification and refers to a temperature of 22 °C, operational changes in length (pressure, temperature...) are not covered by this specification

*** For sample line length > 10 m and vertical installation a strain relief is recommended

Suitable temperature controllers series HT and JPXR4 can be found in this chapter (2)

The standard external (outer) jacket is made of corrugated PA6. For harsh ambient conditions we strongly recommend to use PA12 outer protection. The PA12 material has a higher resistance against UV radiation, influence from acid rain and high temperatures.
Please consult **JCT** sales team.

ORDER CODE

JH3FR

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Temperature sensor PT100* + limiter (thermo switch in connection housing)	3											
Temperature sensor NiCr-Ni type K*	4											
2 x Temperature sensor PT100*	9											
Outer protection corrugated PA jacket		3										
Core 200 mm protruded			0									
Line length without protrusion in dm (e.g. 10 m = 100; 4,5 m = 045)				XXX								
Diameter DN4/6 mm					4							
Diameter DN6/8 mm					6							
PTFE core						PTFE						
PFA core						PFA						
Power supply 230 VAC / 50/60 Hz							2					
Power supply 115 VAC / 50/60 Hz							1					
End configuration side 2 type F (without electrical connection)								F				
End configuration side 2 type G (without electrical connection)								G				
End configuration side 2 type H (without electrical connection)								H				
End configuration side 2 type I (without electrical connection)								I				
End configuration side 2 type J (without electrical connection)								J				
End configuration side 1 type A (with electrical connection)									A			
End configuration side 1 type B (with electrical connection)									B			
End configuration side 1 type C (with electrical connection)									C			
End configuration side 1 type D (with electrical connection)									D			
End configuration side 1 type E (with electrical connection)									E			
Without calibration core										0		
Calibration core DN2/3 mm										2		
Calibration core DN4/6 mm										4		
Without strain relief											0	
With strain relief**											Q16	
Order code		3	0									

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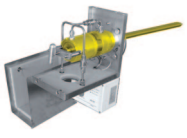
Gas Sampling **Probes**



Heated Sample **Lines**

Sample Gas **Coolers**

JCT Analysentechnik

Gas Conditioning **Systems**

NOx **Converter**

and **solutions** for

IECEx fixed installation portable

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