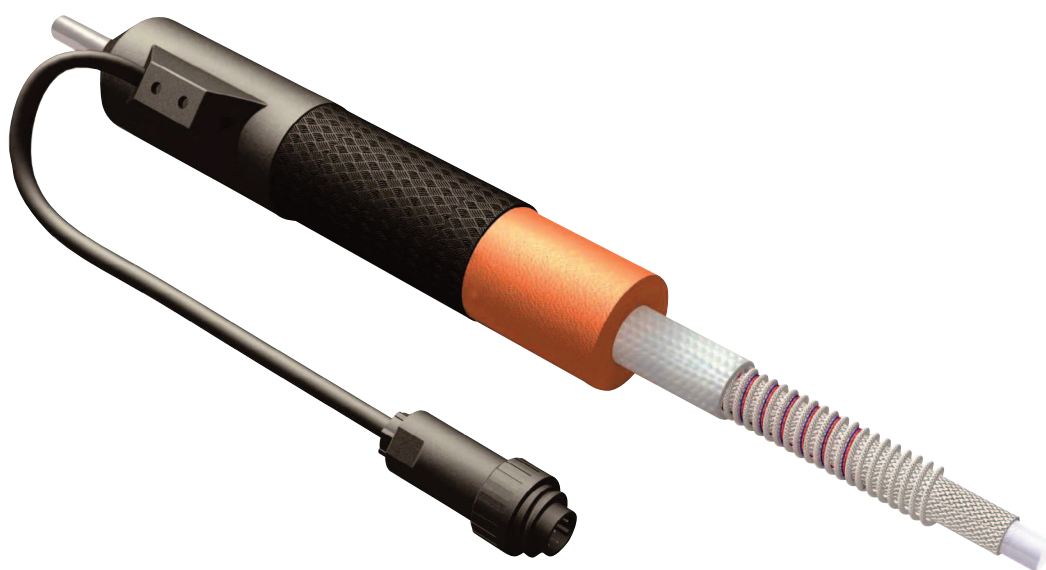




**JCT**  
Analysentechnik

# JH3FG & JH3FGR Heated Sample Lines with PA-Protection Braid



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
- Applicable for portable systems

## BENEFITS

- No condensate formation, no freezing
- Close bending radius possible
- Excellent thermal insulation
- Optimal heat deployment
- Customized configurations
- Easy exchange of the inner core (JH3FGR)
- Long lifetime also in portable applications
- Kink protection

## FEATURES

- Regulated heatable to max. 200 °C
- External jacket flexible protection braid of polyamide
- Heat insulation with silicone foam
- Ready for use
- Very flexible
- Interchangeable inner core for JH3FGR
- Second core for e.g. calibration gas as option
- Integrated temperature controller as option
- Inner core reinforced with stainless steel braid

## TECHNICAL DATA

### Model

**JH3FG / JH3FGR**

Description	regulated heatable sample line	
External protection jacket	polyamide braid, 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	close pore, waterproof silicone hose, thermally stabilised	
End configuration	hard caps or silicone caps (see below)	
Maximum sample line length*	50 m	
Diameter core / sample line outside	DN 4/6 mm / 42 mm +/-3 mm DN 6/8 mm / 42 mm +/-3 mm	DN 4/6 mm / 42 mm +/-3 mm DN 6/8 mm / 48 mm +/-3 mm
Minimum bending radii JH3FG / JH3FGR	DN 4/6 mm: 50 mm / 100 mm DN 6/8 mm: 75 mm / 120 mm	
Dimensions of silicone-caps [mm]	DN 4/6: L = 88, Ø 50 (H), Ø 70 (C) DN 6/8: L = 88, Ø 50 (H), Ø 70 (C)	
Dimensions of PA hard caps [mm]	DN 4/6: L = 111, Ø 50 (F), Ø 75 (A) DN 6/8: L = 111, Ø 50 (F), Ø 75 (A)	DN 4/6: L = 111, Ø 50 (F), Ø 75 (A) DN 6/8: L = 120, Ø 54 (F), Ø 79 (A)
Protection class	IP44 (EN60529)	

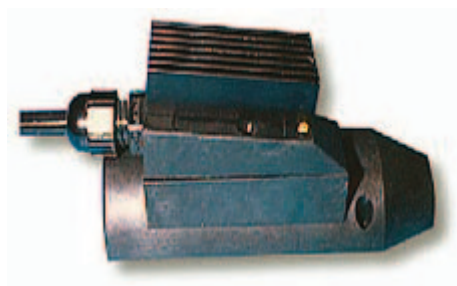
### Electrics

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	

### Option integrated temperature controller HT 54

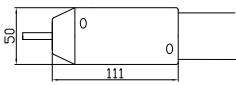
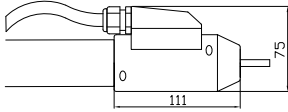
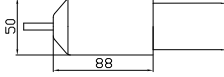
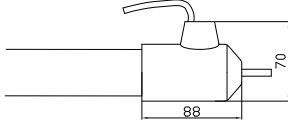
Installation site	directly on hard cap end	
Power supply	230 VAC 50 to 60 Hz / 115 V 60 Hz	
Switching capacity	max. 1000 W / 5 A (max. 10 m 230 V and 5 m at 115 V)	
Temperature range	0° to 254 °C, adjustable in 2 °C steps via DIP-switch	
Temperature sensor	PT100	
Housing material	PA-reinforced glass fiber	
Protection class	IP42 optional sealed: IP65 (fixed temperature adjustment)	

\* 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.



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

## End configuration of sample line

Without electrical connection (side 2)		With electrical connection (side 1)		Type	JH3FG	JH3FGR
F			A	Hard cap	p	p
					RSL	
H			C	Silicone cap	p	p
					RSL	

JH3FG with non interchangeable inner core  
p = PTFE core, 200 mm protruded

JH3FGR with interchangeable core  
RSL = Stainless steel stubs, 30 mm long

Dimensions in mm

## ORDER CODE

### JH3FG

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 PA braid	0														
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 H (without electrical connection)	H														
End configuration side 1 type A (with electrical connection)	A														
End configuration side 1 type C (with electrical connection)	C														
Without calibration core	0														
Calibration core DN 2/3 mm	2														
Calibration core DN 4/6 mm	4														
Without integrated temperature controller	0														
With integrated temperature controller HT-54	Z2														
With integrated sealed temperature controller HT-54 with fixed temperature adjustment (please specify desired temperature with order)	Z3														
Without strain relief	0														
With strain relief***	Q16														
<b>Order code</b>	0														

\*\* 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)

## ORDER CODE

### JH3FGR

Temperature sensor PT100*	2																			
Temperature sensor PT100* + limiter (thermo switch in connection housing)	3																			
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With strain relief****																				Q16

Order code	0	0																	
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\* 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

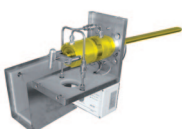
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Gas Sampling Probes



Heated Sample Lines



Sample Gas Coolers



Gas Conditioning Systems



NOx Converter



and solutions for

