

SF72

Dew-Point Transmitter



The SF72 dew-point transmitter is a compact sensor designed for use in industrial dryer applications at the key -50 to $+10^{\circ}\text{Cdp}$ measuring points, where response speed, reliability and long term stability of data within a control process is critical.

The transmitter is pressure rated to 450 bar, ensuring process gas safety, through the use of a 10-year field-proven stainless steel body and glass-to-metal seal. The SF72 has three alternative industry-standard sample block connections giving form, fit & function benefits.

Our polymer based sensor is calibrated on a high volume traceable calibration system, providing OEM quantities of units, each with an 8-point traceable calibration certificate.

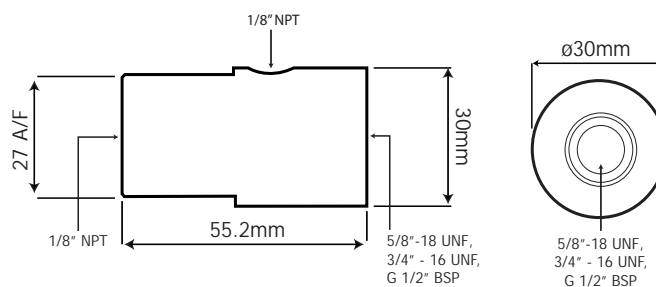
Highlights

- Ideal for membrane and refrigeration dryer use
- Compatible with *Compressed Air Quality ISO8573.1* Class 2 to 6 requirements
- Dew point measurement range -60 to $+60^{\circ}\text{Cdp}$
- Fast response
- 316 stainless steel IP66 construction
- 8-Point traceable calibration certificate
- Accuracy $\pm 2^{\circ}\text{Cdp}$
- G 1/2" BSP, 3/4" and 5/8" UNF process connections
- Service exchange program

Technical Specifications

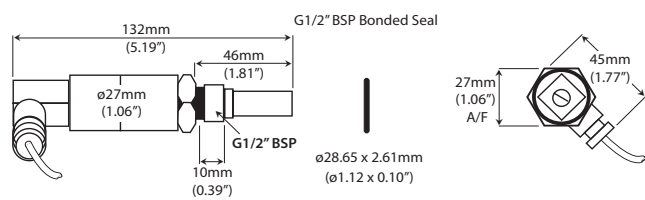
Performance	
Measurement range (dp)	-60 to $+60^{\circ}\text{C}$ dew point
Accuracy (dp)	$\pm 2^{\circ}\text{C}$ dew point
Repeatability	$\pm 0.2^{\circ}\text{C}$ dew point
Long term stability	Less than 1% per year at reference conditions
Calibration	Traceable 8-point calibration certificate
Electrical Specifications	
Output signal	4–20 mA (2-wire connection, current source)
Output	Dew point
Analog output scaled range	Standard -60 to $+60^{\circ}\text{C}$ -50 to $+50^{\circ}\text{C}$ -50 to $+30^{\circ}\text{C}$ Non-standard available upon request
Supply voltage	12–28 V DC
Load resistance	Max 250 Ω @ 12 V (500 Ω @ 24 V)
CE marked	Certified
Operating Specifications	
Operating temperature	-40 to $+60^{\circ}\text{C}$
Operating pressure	45 MPa (450 barg) maximum
Over pressure rating	x2 operating pressure 90 MPa (900 barg)
Flow rate	1 to 5 NI/min mounted in standard sampling block; 0 to 10 m/sec (0 to 32.8 fps) direct insertion
Thermal compensation	Characterized over operating range
Mechanical Specifications	
Ingress protection	IP66 in accordance with standard BS EN 60529:1992 NEMA 4 in protection accordance with standard NEMA 250-2003
Housing material	316 Stainless steel
Dimensions	L=132mm (incl. connector & HDPE Filter) x $\phi 27\text{mm}$
Filter	Standard HDPE Guard $<10\mu\text{m}$ Optional Sintered guard $80\mu\text{m}$
Process connections and material	G 1/2" BSP, 3/4" — 16 UNF, 5/8" — 18 UNF 316 Stainless steel
Weight	150g
Electrical connections	Hirschmann GDS series (DIN 4350-C)
Digital diagnostic communications	RS485, 2-wire Modbus RTU

Dimensions

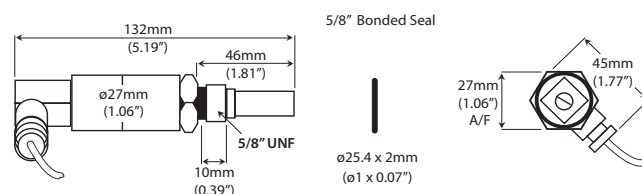


Sample Block (optional)

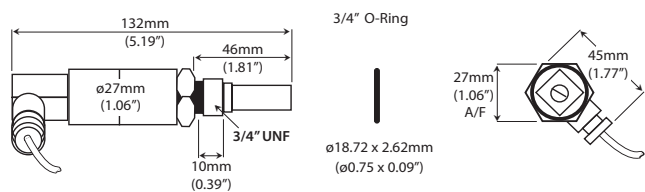
Dimensions



G 1/2" Process Connection



5/8" Process Connection



3/4" Process Connection

Electrical Connections

4-20 mA connections 2-wire	
Pin 1	4-20 mA
Pin 3	POWER

Ordering Codes

To construct the order code, select the relevant feature from the tables below, starting with the base model, which is {Feature A} and then add on options to create a string: {Feature A} + {Feature B} + {Feature C} + {Feature D}

Order example: SF72-TX+B1+C2+D1

SF72 Transmitter, 2-wire, 4-20 mA output, G 1/2" BSP, measurement range -50 to +50°Cdp, HDPE guard

Base Model {Feature A} SF72 Transmitter SF72-TX		SF72-TX	B1	C2	D1	Protection {Feature D} Standard HDPE guard <i>(for protection against fine particulate <10µm)</i> D1 SS sintered guard <i>(for protection against fine particulate <80µm)</i> D2
Type {Feature B} G 1/2" BSP process connection B1 3/4" UNF process connection B2 5/8" UNF process connection B3						Range {Feature C} -60/+60°Cdp output scaled 4-20 mA range C1 -50/+50°Cdp output scaled 4-20 mA range C2 -50/+30°Cdp output scaled 4-20 mA range C3

Also available as a Service Exchange transmitter using the following order code "SF72-TX-X" in conjunction with {Feature B, C & D} above.

Accessories and Spare Parts

		Process Connection Size		
		G 1/2"	3/4"	5/8"
Sensor Protectors	Pack of 10 replacement HDPE guards for protection against fine particulate <10µm	EA2-HDPE	EA2-HDPE	EA2-HDPE
	Stainless steel sintered guard replacement for protection against fine particulate <80µm	SSG	SSG	SSG
	Pack of 10 particulate filter cartridges for protection against fine particulate <25µm (for sampler kits)	SSF-PF-10PK		SSF-PF-10PK
Connection Adaptors	3/4" -16 UNF to 5/8" UNF adaptor			APT-PAN
	G 1/2" BSP to 5/8" UNF adaptor			APT-GEI
	1/2" NPT to 5/8" UNF adaptor			APT-TSO
Sampling Blocks	G 1/2" 316 stainless steel sample block (with 1/8" NPT inlet & outlet ports)	SB-12		
	G 1/2" 316 stainless steel sample block with filter (with 1/8" BSP and 1/4" BSP ports)	A000351		
	3/4" stainless steel sample block with filter (with 1/8" BSP and 1/4" BSP ports)		SB-34	
	5/8" 316 stainless steel sample block (with 1/8" NPT inlet & outlet ports)			CSB
	5/8" sampler kit- For atmospheric or pressure dp measurements (145 psig / 10 barg max)			EA2-SAM
	5/8" HP sampler kit – For atmospheric or pressure dp measurements (2900 psig / 200 barg max)			EA2-SAM-HP
Other Parts	PTFE sample tube – 6mm (0.24") outside diameter, thick-walled (for sampler kit) (price per meter- above 0.5m)	PTFE-xx	PTFE-xx	PTFE-xx
	KFD0-CS-EX1.50P galvanic isolator (Pepperl & Fuchs)	GI-PF-01	GI-PF-01	GI-PF-01
	Additional/replacement transmitter labels (2 Labels)	GEN-LABEL	GEN-LABEL	GEN-LABEL
	Sensor connector	EA2-SC	EA2-SC	EA2-SC
	Communication kit for SF72 transmitter	SF72-CK	SF72-CK	SF72-CK
	BS EN 10204 3.1 material certificate	DP-MC	DP-MC	DP-MC
	Recalibration of SF72 transmitter	READINGS	READINGS	READINGS
	O-rings/Bonded seals for process connection – pack of 5	BS-12-PK5	OR-34-PK5	BS-58-PK5