

Model 436F Strain Gauge Pressure Transmitter with Integrated 4-digits Display



Based on BCM metal-foil strain gauge technology, 436F strain gauge pressure transmitters are in mass manufacturing for general pressure measurements in industry applications. The transmitters provide analogue 4~20 mA output signal with integrated 4-digits display meter, so the measured pressure can be field displayed.

In order to measure different kinds of media, the connecting ports of 436F are manufactured to two kinds of inner cavity types, flush diaphragm type or internal thread type, the inner cavity types and internal thread type are used for gases or dilute liquids, while flush diaphragm type is specially used for viscous fluid media or fluid media with grains.

436F pressure transmitter achieves nice measuring accuracy of 0.5%fso (fso = full scale output), in measuring ranges of 0~16 bar to 0~2000 bar. The transmitter is temperature compensated in range of -10 ~ +60 °C and has nice long term stability of 0.15%fso per year, widely used in oil and chemical industry, irrigation works, electric power, refrigerate system etc.



436F (type I):
inner cavity
with flat port



436F (type II):
inner cavity
with protrude port

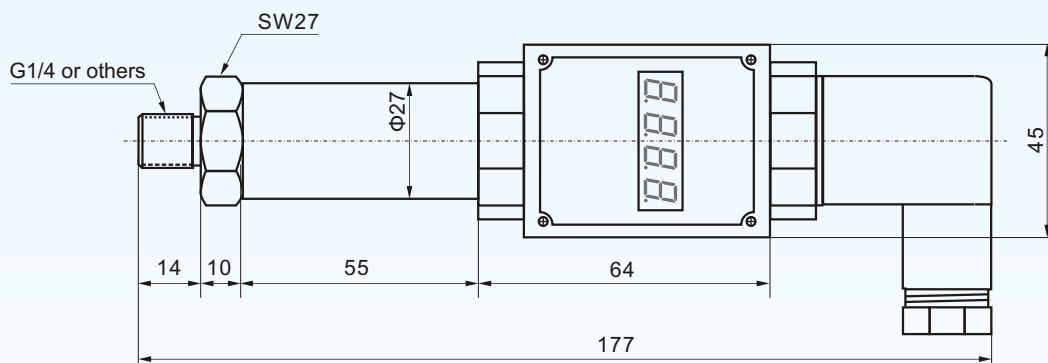


436F (type III):
flush diaphragm



436F (type IV):
internal thread type

Dimensions:



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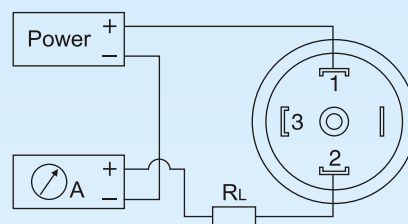


Features:

- pressure ranges: 0~16 bar, ..., 0~2000 bar
- output signal: 4~20 mA, with integrated 4-digits display
- measuring accuracy: 0.5 %fso
 - option: 0.05%fso, 0.1%fso or 0.25%fso for 4~20 mA output
 - signal in range of 0~20 to 0~2000 bar,
 - while 0.5 %fso for 4-digits display meter
- compensated temperature ranges: -10 ~ +60 °C
- materials: 17-4PH SS (pressure membrane); 316 SS (housing)
 - housing protection: IP 65 (connector);
 - IP 66 (direct cable)

Electrical connection:

(example of 4~20 mA output signal with DIN 43650 connector)



Specifications:

pressure media	type I, II, IV	gas or dilute liquid, which is compatible with wetted parts materials.
	type III	viscous fluid or fluid with grains, which is compatible with wetted parts.
measuring ranges & type	barG	0/16, /20, /25, /40, /60, /100, /160, /250, /400, /600, /1000, /1600, /2000
overload pressure	%fso	150
output signals		4~20 mA with integrated 4-digits display meter
combined error	%fso	0.5(standard); 0.05, 0.1 or 0.25 (option: for 4~20 mA output signal in 0/20 to 0/2000 bar, while 0.5 %fso for integrated 4-digits display meter)
insulation resistance	MΩ	> 500 @ 100 Vdc
supply voltage		12, ..., 30 V (depending on load resistance)
load resistance	Ω	250, ..., 1100
temperature coefficient of ZERO	%fso/10°C	±0.5
temperature coefficient of SPAN	%fso/10°C	±0.5
long-term stability	%fso/year	± 0.15
compensated temperature range	°C	-10 ~ +60
operating temperature range	°C	-40 ~ +125
process connection	type I, II, IV	G1/4 (standard), 1/4 NPT, M14x1.5, others are available on request
	type III	G1/2 (standard), M20 x 1.5
electrical connection	connector/cable	DIN 43650 connector; 4-pin plug-in connector, plus matting connector; 2-conductor shielded PVC skin cable (Φ5 mm, length 2 m).

The listed specifications are subject to change without prior notice.

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Ordering Codes System:

(The items in GRAY in the following table mean that, those items can be requested by the customer on his order sheet once those requested items have been confirmed already in writing by BCM sales people.)

example: 436F(I) - L6 - O3 - A4 - M5- E2 - S4 - P5 - C*

code	model
436F(I)	436F (type I)
436F(II)	436F (type II)
436F(III)	436F (type III)
436F(IV)	436F (type IV)

code	pressure range
L1	0~16 bar
L2	0~20 bar
L3	0~25 bar
L4	0~40 bar
L5	0~60 bar
L6	0~100 bar
L7	0~160 bar
L8	0~250 bar
L9	0~400 bar
L10	0~600 bar
L11	0~1000 bar
L12	0~1600 bar
L13	0~2000 bar
L14	other range to request

code	output signal
O3	4~20 mA, + 4-digits display
O4	other output signal to request

code	combined error
A1	0.05 %fso for 4~20 mA output signal in range of 0~20 to 0~2000 bar, while 0.5 %fso for 4-digits display meter
A2	0.1 %fso for 4~20 mA output signal in range of 0~20 to 0~2000 bar, while 0.5 %fso for 4-digits display meter
A3	0.25 %fso for 4~20 mA output signal in range of 0~20 to 0~2000 bar, while 0.5 %fso for 4-digits display meter
A4	0.5 %fso

code	customer especially requested item
C*	This is a customized code given by the customer, who wants to use this code to define his desired or wished specific item for the sensor to be ordered. This code starts with a "C" followed by a "*". Once the customer desired or wished item is confirmed by BCM sales people, the customer can write this code "C*" as part of his ordering code on his order sheet. If the customer does not have such special request, this "C*" code can be omitted.

code	environment protection
P5	IP 65 (connector for electrical connection)
P6	IP 66 (cable for electrical connection)
P7	IP 67

code	power supply
S4	12, ..., 30 V
S5	other power supply to request

code	electrical connection
E2	DIN 43650 connector
E3	4-pin plug-in connector, plus mating connector
E4	2-conductor shielded PVC skin cable (Φ5 mm, length 2 m)
E5	other electrical connection to request

code	process connection
M2	G1/4
M3	1/4 NPT
M4	M14 x 1.5
M5	G1/2
M6	M20 x 1.5
M7	other thread to request

Explanation of the Ordering Code: 436F(I) - L6 - O3 - A4 - M5- E2 - S4 - P5 - C*

Model 436F (type I) pressure transmitter in inner cavity construction for 0~100 bar gauge pressure application, the transmitter has 4~20 mA output signal with integrated 4-digits display meter, achieve 0.5%fso combined error, the process connection for transmitter is G1/2, electrical connection is DIN 43650 connector, power supply is 12, ..., 30 V depending on load resistance, environment protection grade for the transmitter is IP

65. The customer has indicated his wished specification on his order sheet by code "C*" (for instance, C* = overload pressure has to be 200%FS), and this customer-wished item has to be confirmed by BCM sales people on <<Order Confirmation>>.



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