



Exquisite gauge pressure transmitter

JUN-E70

JUN-E70 exquisite gauge pressure transmitter is an ultra-high performance pressure transmitter carefully developed by using the world's advanced pressure sensor technology and packaging technology, with the highest measuring accuracy of $\pm 0.1\%$. The transmitter has a built silicon sensor, export the current or voltage signal corresponding to the measured pressure.

The product is suitable for the pressure measurement of gas, liquid, steam and other process fluids, and can be used in the environment with explosion-proof requirements.

Standard layout

Export

Export Signal: 4~20mA, 0.5~4.5V, 4 ~ 20mA + HART, RS485 MODBUS-RTU

Supply voltage

DC12~32V

Load impedance

250~600 Ω for HART communication

Determine the pressure range

Nominal range	Minimum range	Range lower limit	Range upper limit	Overload
7kPa	5kPa	-7kPa	7kPa	10.5kPa
20kPa	10kPa	-20kPa	20kPa	30kPa
35kPa	20kPa	-35kPa	35kPa	52.5kPa
100kPa	35kPa	-100kPa	100kPa	150kPa
200kPa	100kPa	-100kPa	200kPa	300kPa
700kPa	200kPa	-100kPa	700kPa	1050kPa
1MPa	500kPa	0.1MPa	1MPa	1.5MPa
1.7MPa	1MPa	-0.1MPa	1.7MPa	2.55MPa
3.5MPa	1.7MPa	-0.1MPa	3.5MPa	5.25MPa
7MPa	3.5MPa	-0.1MPa	7MPa	10.5MPa
17MPa	7MPa	-0.1MPa	17MPa	25.5MPa
35MPa	17MPa	-0.1MPa	35MPa	52.5MPa
40MPa	20MPa	-0.1MPa	40MPa	60MPa
60MPa	30MPa	-0.1MPa	60MPa	90MPa
70MPa	35MPa	-0.1MPa	70MPa	105MPa
100MPa	50MPa	-0.1MPa	100MPa	150MPa



Use the temperature range

Use range: -40~85°C

Determine the temperature of the medium range: -30 to 80°C

Use humidity range

0~95%RH 40°C

Precision

$\pm 0.1\%$, $\pm 0.2\%$, $\pm 0.5\%$

Storage temperature range

-40~80°C

Levels of protection

IP65

Temperature characteristic

Total impact volume in the range of -20 to 80°C: $\pm 0.2\%$ range Upper limit / 10K

Time index

Power-on start time after power-off: 3S (with HART export time 6S)

life length

For the 107 pressure cycles

Diaphragm material quality

Material quality: 316L stainless steel, Harbin alloy C, etc

Procedural interface

M20x1.5(M) 、G1/2(M) 、G1/4(M) 、NPT1/2(M) 、NPT1/4 (M) 、NPT1/2(F) 、NPT1/4(F)

Distribution interface

Direct lead, M12 air insert, Hersman, can be customized

Insulation resistance

20M2@ reference condition, 100VDC

Additional instructions

NEPSI Intrinsic Safety Certification

Ex ia IIC T4

-30°C ≤ Tamb ≤ +60°C Process temperature=105°C

Electrical parameters: Ui=30V, Li=100mA, Pi=1 W, Ci=13nF, Li=0.5mH

Electromagnetic compatibility (EMC)

EN 61326-1:2013

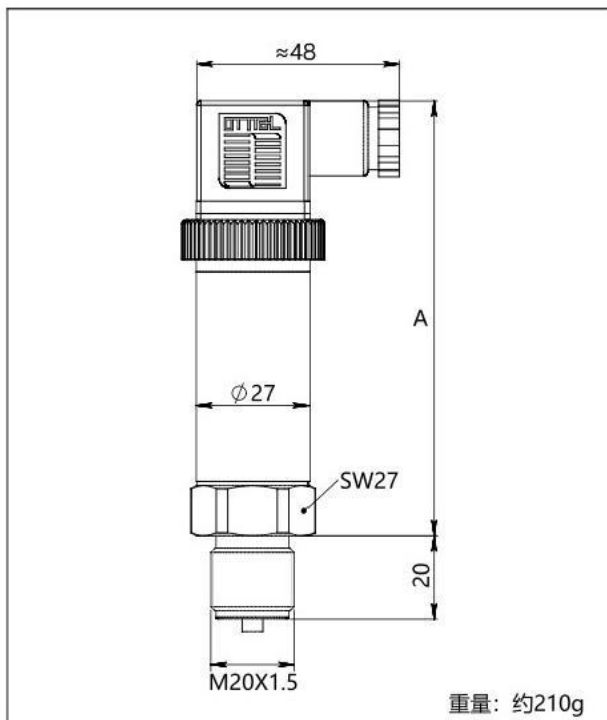
EN 61326-2-3:2013

EN 61326-2-5:2013

Electromagnetic compatibility directive: 2014/30/EU

Overall dimension drawing (in mm)

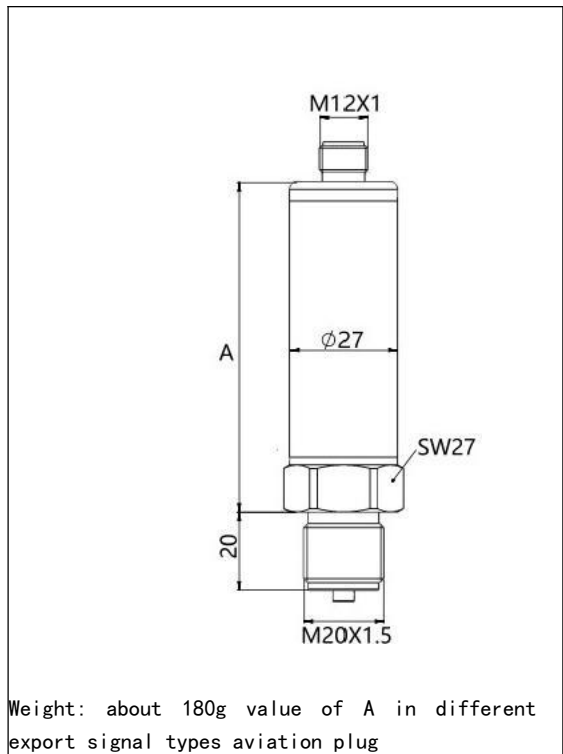
Dimension drawing of the whole machine with DIN43650



Value of A in different export signal types (DIN43650 connector)

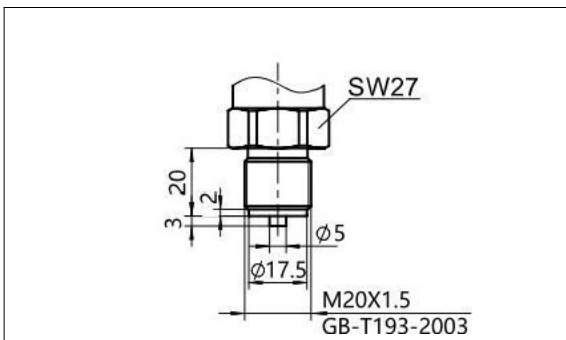
Export Way code	Accuracy of 0.1%range upper limit	Other precision
F、H、A	123	108
5、6		108
R	123	123

Dimension drawing of the whole machine with aviation plug (H1) (unit: mm)

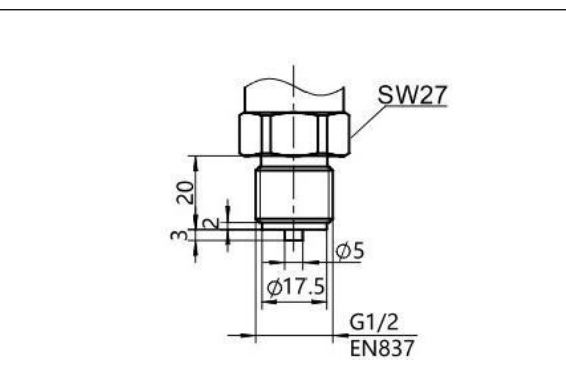


Export Mode code	Accuracy of 0.1%range upper limit	Other precision
F、H、A	83	68
5、6		68
R	83	83

Process Connection (M01) (in mm)

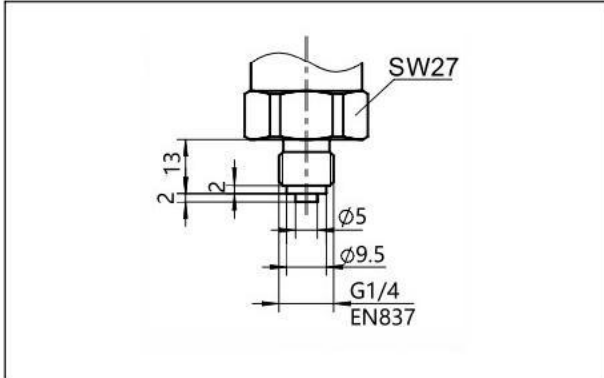


Process Connection (G01) (in mm)

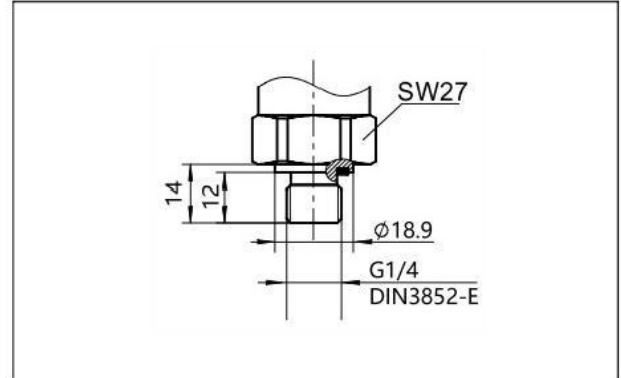


Dimensional drawing

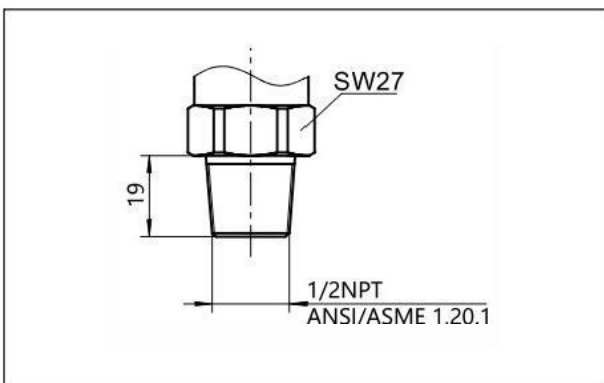
Process Connection (G02) (in mm)



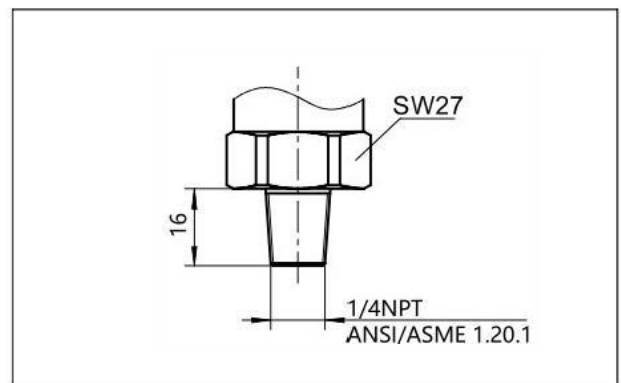
Process Connection (G08) (in mm)



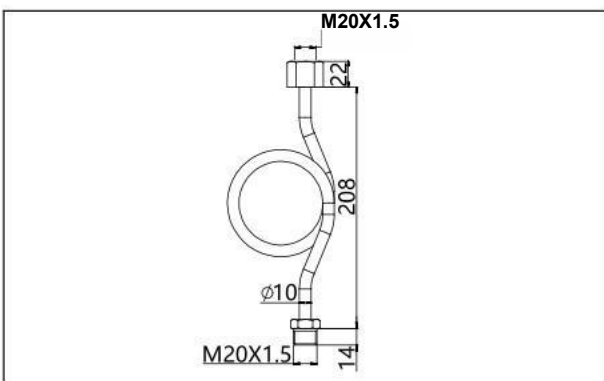
Process Connection (R01) (in mm)



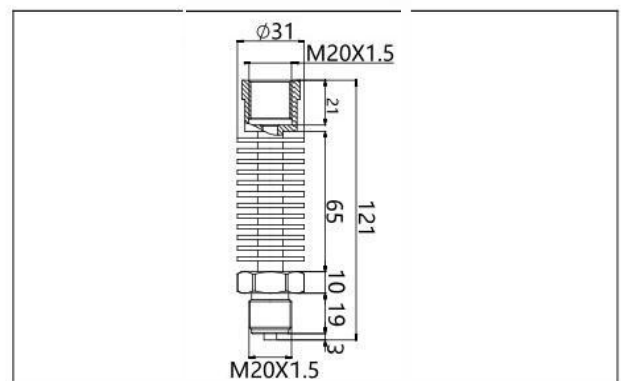
Process Connection (R02) (in mm)



Heat exchange connector (N1) (unit:mm)

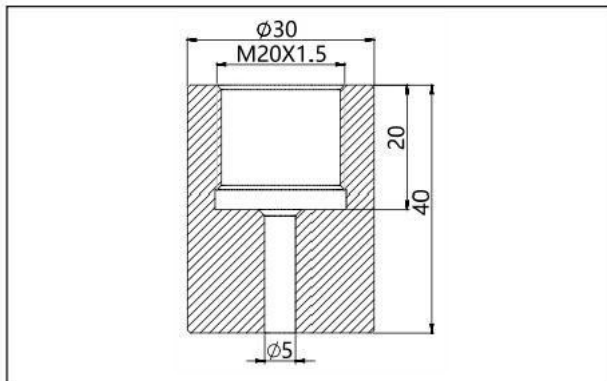


Heat exchange connector (N2) (unit:mm)

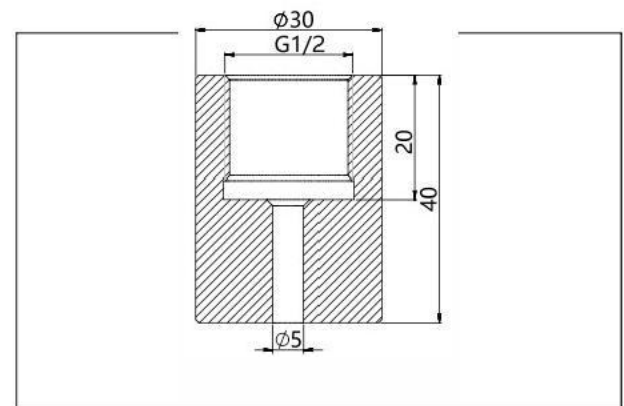


Dimensional drawing

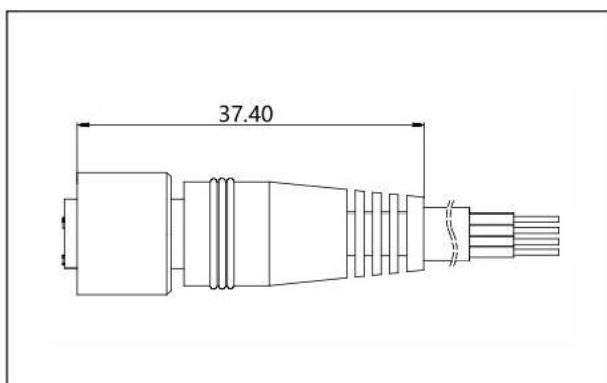
Welded transfer joint (Z1)



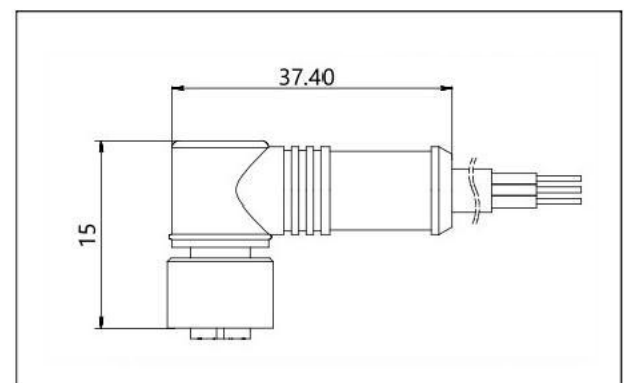
Welded transfer joint (Z2)



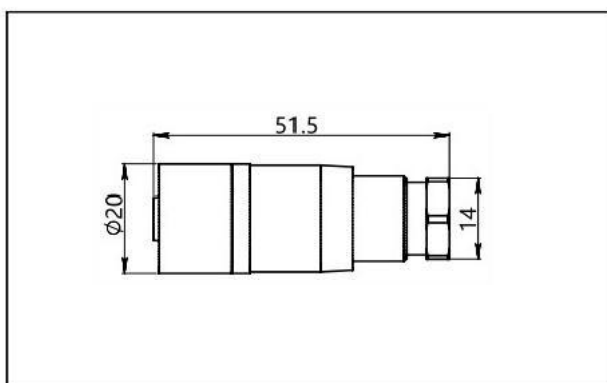
Aviation mother straight plug (J1) (unit: mm)



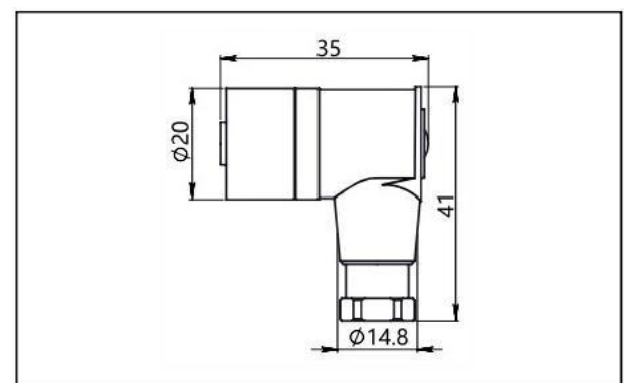
Aeric plug bend (J2) (in mm)



Aviation plug straight head (J4) (in mm)



Aviation plug bend (J5) (in mm)



Order number	Project	Code	content
1	Model	JUN-E70	Exquisite gauge pressure transmitter
2	Accuracy	A	0.1%
		B	0.2%
		C	0.5%
3	Range	G07	0~7kPa (ventilation gauge pressure, 0Pa = current atmospheric pressure)
		G20	0 ~ 20kPa ventilation gauge pressure, 0Pa = current atmospheric pressure
		G35	0 ~ 35kPa ventilation gauge pressure, 0Pa= current atmospheric pressure
		G100	0~100kPa (ventilation gauge pressure, 0Pa = current atmospheric pressure)
		G200	0 ~ 200 kPa ventilation gauge pressure, 0Pa= current atmospheric pressure
		G700	0~700kPa (ventilation gauge pressure, 0Pa = current atmospheric pressure)
		G1K	0~1MPa ventilation gauge pressure, 0Pa= current atmospheric pressure
		G1.7K	0~1.7MPa (Vent gauge pressure, 0Pa = current atmosphere)
		G3.5K	0~3.5MPa (Air atory pressure, 0Pa = current atmosphere)
		G7K	0~7MPa (seal gauge pressure, 0Pa = calibration daily ambient air pressure)
		G17K	0~17MPa (seal gauge pressure, 0Pa = calibration daily ambient air pressure)
		G35K	0~35MPa (seal gauge pressure, 0Pa = calibration daily ambient air pressure)
		G40K	0~40MPa (seal gauge pressure, 0Pa = calibration daily ambient pressure)
		G60K	0~60MPa (seal gauge pressure, 0Pa = calibration daily ambient air pressure)
		G70K	0~70MPa (seal gauge pressure, 0Pa = calibration daily ambient pressure)
		G100K	0~100MPa (seal gauge pressure, 0Pa = calibration daily ambient pressure)
4	Pressure type	G	Gage pressure
5	Signal	F	4~20mA, made with two lines
		H	4~20mA + HART, made in two lines
		R	RS485 MODBUS-RTU
		5	0.5~4.5V, Three-line system, suitable for power supply voltage 6-15VDC
		6	0.5~4.5V, Three-line system, proportional export is applicable to the power supply voltage of 5VDC
		A	4~20mA, two-line system, basic safety type, applicable to power supply voltage 12-28VDC
6	Tube body	37	The length of the stainless steel pipe body is 37mm, with HART, Modbus-TRU / RS 485export is not optional
		53	The length of stainless steel pipe body is 53mm, with HART, Modbus-TRU / RS 485export is not optional
		65	Stainless steel pipe body length of 65mm, HART and Modbus export mode options, the precision of 0.1% selection
		85	Stainless steel pipe length 85mm, HART and Modbus export options, precision 0.1% selection

7	Connect the fluid section diaphragm material quality	S	And 316L stainless steel
		H	Hastelloy C
8	Seal into the liquid	S	Silicone oil, applicable to the direct contact temperature range of -45 to 205°C
9	Treatment of the solution site	0	No special treatment
		1	No oil treatment
		2	Water ban treatment
10	Pressure import connection	M01	Outer thread M20 * 1.5, Φ 3 lead hole, GB / T193-2003, ISO 261
		G01	External thread G1 / 2, Φ 3 lead hole, EN 837
		G02	External thread G1 / 4, Φ 3 lead hole, EN 837
		G08	Outer thread G1 / 4A, Φ 3 lead hole, GB / T7307, ISO 228, DIN 16288, BS 2779, seal reference DIN 3852-E (rear end seal), maximum measurement range 60MPa
		R01	Outer thread 1 / 2 NPT-14, Φ 3 lead pressure orifice, GB / T12716, ANSI / ASME B 1.20.1
		R02	Outer thread 1 / 4 NPT-18, Φ 3 lead pressure orifice, GB / T12716, ANSI / ASME B 1.20.1
		R03	Inner thread 1 / 2 NPT-14, Φ 3 lead pressure orifice, GB / T12716, ANSI / ASME B 1.20.1
		R04	Inner thread 1 / 4 NPT-18, Φ 3 lead pressure orifice, GB / T12716, ANSI / ASME B 1.20.1
11	Electrical connection	D1	DIN 43650 Hessman connector
		D2	M12 aviation connector
		D3	Direct lead
12	Additional option-pressure import mounting fitting	-N1	Heat exchange connector, 304 stainless steel bend, M20 * 1.5 inner thread to M20 * 1.5 outer thread
		-N2	Heat exchange connector, 304 stainless steel bellows, M20 * 1.5 inner thread to M20 * 1.5 outer thread
13	Additional option-pressure import attachment	-Z1	Welded connector, 304 stainless steel, M20 * 1.5 internal thread
		-Z2	Welded connections, 304 stainless steel, G1 / 2 inner thread
14	Additional option-Check the report	-Q2	Provide a nationally recognized third-party verification report

Matters need attention



To better perform the performance of the transmitter, please pay attention to the following before use and read the instructions.

Note for transmitter installation

Notice
When installing the transmitter, ensure that the sealing gasket is connected in the process, not from the transmitter to the process fluid (such as fitting flange connection, connecting pipe Lane, flange) connected prominent, if the sealing gasket protruding outside, may lead to liquid leakage and output errors. Do not use the transmitter beyond the specified pressure, temperature range and operating conditions of the product specification, otherwise it may cause the leakage of the product and cause serious accidents.
When wiring in dangerous areas, please follow the operation method specified in the explosion-proof standard instructions.

Notice
Please do not stand on the installed transmitter, take it as a foot.foot may occur splash, causing fluid splash injury personnel.
Be careful of the glass display, do not use tools to hit the glass part of the digital watch head, breaking the glass may cause body injury.
The transmitter is heavy, please carefully install and wear safety shoes.
The collision transmitter may damage the sensor module.

Wiring notice matters

Warning
To prevent a short circuit, please do not use wet hands or in a live state of the wiring work.

Notice
Please connect correctly according to the technical specification. Wrong wiring will cause instrument failure or irreparable damage.
Please use the power supply that meets the technical specification. Using the inappropriate power supply can cause instrument failure or irreparable damage.

Use the HART protocol equipment notice matters

If the instrument is operated by the helper (HART Communicator, etc.), set the communication interval of the server (DCS, equipment management system) for more than 8 seconds, or stop the communication between the server and the instrument. If the server communicates with the instrument repeatedly within 8 seconds, the instrument may not accept the request of the helper (may not be able to communicate with the instrument).

If the electrical noise interference in the surrounding environment affects the HART communication with the server, please take corresponding measures, such as separating the signal cable from the noise source, improving the grounding or replacing the signal shielding cable, etc. If an analog signal of 4-20mA is used, the use will not be affected even if the HART communication is disturbed by the noise

△ Before using the product, please read the operation manual carefully.

△ Any change in appearance or specification due to improvement without notice.

YMCL-CP07.C/1