

HTI/HGI type pressure sensors

Instruction Manual

MEIYO ELECTRIC Co., Ltd.

Safety Precautions

Be sure to follow the precautions given below before starting inspection or servicing.

An accident may result due to electric shock or short circuit.

- (1) Be sure to turn off the power.
- (2) Using a tester make sure no voltage is applied before starting the work.
- (3) Do not perform live-line work except as required in emergency.

General Information on Electric Shock.

There are the following three cases where people suffer from electric shock:

- (1) Brought into contact with something electrically hot, his/her body makes a path of a ground-fault current.
- (2) Brought into contact with two lines under voltage, his/her body makes short circuit the lines.
- (3) Brought into a path of electricity, such as an electric wire and a switch, his/her body is inserted into the path of load current.

Electric Shock Preventive Measures.

- (1) Eliminate insufficient insulation in wiring and electrical machinery and apparatus.
- (2) Completely execute grounding work for electrical machinery and apparatus.
- (3) Provide electric leak preventive measures for cables to electrical machinery and apparatus operated in wet places.
- (4) Be sure to turn off the power before starting inspection or repair work.

1 Precautions

1.1 Storage

- (1) Do not store the sensor in the following places.
 - In a location subject to exposed by rain.
 - In a location subject to rocking vibration.
 - In an extremely hot, dry or humid place. Storage temperature is defined between -20°C to 80°C , but condition at room temperature and normal humidity (approximate 25°C 65%RH) is recommended.
 - In a location filled with corrosive gas.
- (2) Please store the sensor at form of packing.
- (3) Before the sensor which is used before, is stored, confirm the any measured fluid objects is not get entered into the sensing terminal and cleanse the sensor until any object is completely removed.

1.2 Setting location

HTI/HGI type pressure sensors are designed for working at hard condition. However, to use them for safety, long term and precise working, please check the following items.

- (1) Refrain from setting the sensor under direct sunlight or near a heater.
- (2) Refrain from setting the sensor at corrosive gas atmosphere, if it is inevitable, air ventilation is needed.
- (3) The sensor is designed as waterproof, however refrain from exposed by water is recommended, especially wiring access entry is not get wet for more safe.
- (4) The sensor is designed as vibrational proof, however please set it in location less vibration for more safe.
- (5) The sensor is NOT designed as explosion proof, therefore please do NOT set this sensor at explosive gas atmosphere.

1.3 To protect diaphragm from damage.

- (1) HTI/HGI type pressure sensors are used double diaphragm method, so fluid measured object will not be contacted with the diaphragm directly.
- (2) Diaphragm may be damaged if measured fluid object become frozen. Therefore please take measured object refrain from freezing up.

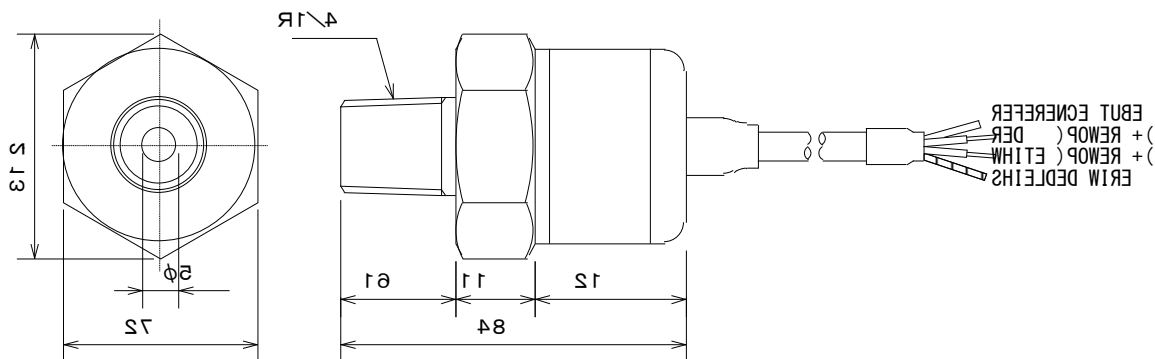
1.4 Reference tube

HTI/HGI type pressure sensors are gauge pressure sensors corrected atmospheric pressure by the air coming from reference tube. Please do not clog the reference tube with a water drip or others.

2. Outline

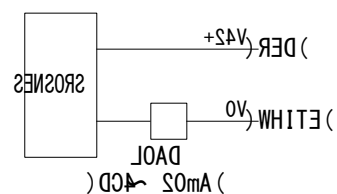
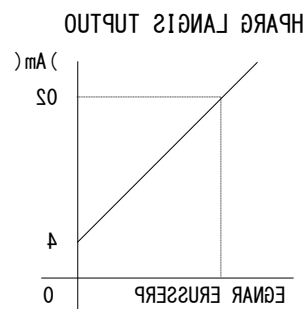
HTI/HGI type pressure sensors measure respective pressure and convert to electrical current output signal between 4mA to 20mA. It uses diffused semiconductor sensor and double diaphragm which will not be contacted measured object directly.

EXTERNAL LINKS



1 SPECIFICATION

THIEW	g011 ETAMIXORPPA
ELBAC	EBUT ECNEREFER +DLEIHS
ESAC	F00RP-PIRD
TR0P T0ATN0C ERN2SERP	4\IR
.PMET NOITASNEPMOC	°00~0~
.PMET GNITAREPO	°08~0~1-
()	2F 98.0 ± NAHT 2SEL
()	2F 98.0 ± NAHT 2SEL
()	2F 98.0 ± NAHT 2SEL
ACCAUCOY	() °00~0~2F 98 ± NAHT 2SEL
YTLIBISN0P2SER	cesm01 NAHT 2SEL
ECNATISER DAOL	2008 XAM
OUTPU2	~0m0A
YLPUS REWOP	CDV42
ERUS2SERP MUMIAM	EGNAR EHT FO %021
MEIT	2NOITACIFICE2S



LEDOM \ EGNAR ERUSSEPP I

LEDOM	EGNAR
PK010-1TH	9PK 01 0
PK020-1TH	9PK 02 0
PK020-1TH	9PK 02 0
PK001-1TH	9PK 001 0
PK003-1TH	9PK 003 0
PK002-1TH	9PK 002 0
PM100-1TH	9PM 00.1 0
PM200-1TH	9PM 00.2 0
PK001-N1TH	9PK 001-0 0
PK010-N1TH	9PK 01-0 0
PK002-C1TH	9PK 002 001-
PK010-C1TH	9PK 01-0 01-

LEDOM	EGNAR
PM100-1GH	PM 00.1
PM200-1GH	PM 00.2

3. Preparing the operation

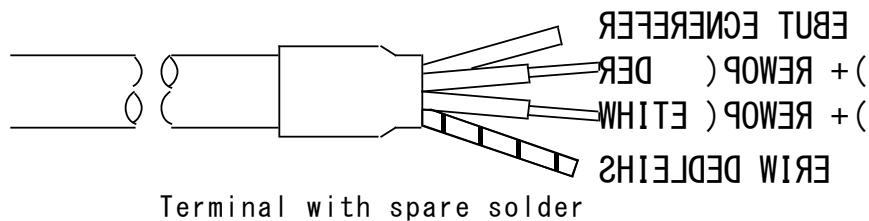
3.1 Check there is no any problem of application, set the pressure sensor at measured places.

- (1) Pay attention to avoid giving abrupt high pressure to the sensor. If high pressure exceeds the device specification, the sensor may be damaged even a moment.
- (2) Pay attention to avoid making bubble get into sensor during measuring liquid. Also if shock wave may occur in pipe, set the pressure snubber (Damper)
- (3) Use monkey wrench, drive the hexagon head bolt and certainly install. Do not use body of case.
- (4) Tightening torque 12~14N/m(Max:20N/m) is recommended.

3.2 Connect the cable.

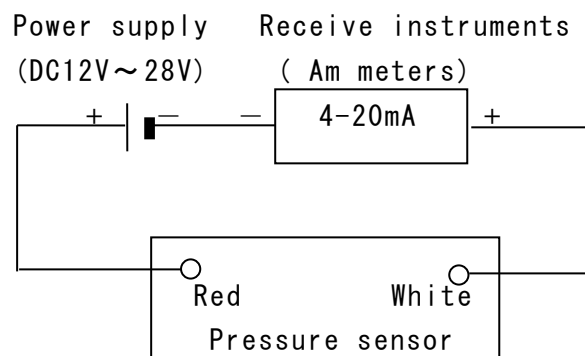
Please refer the connection diagram below.

Choose both part number and size of solderless terminal, screw, lead wire respectively suited.



3.3 Connecting diagram

- (1) Off the switch before connection.
- (2) Check the polarity before connection.



(Note) If Power supply line may contain noise or surge, get rid of them by such as setting a varistor and then supply to pressure sensor.

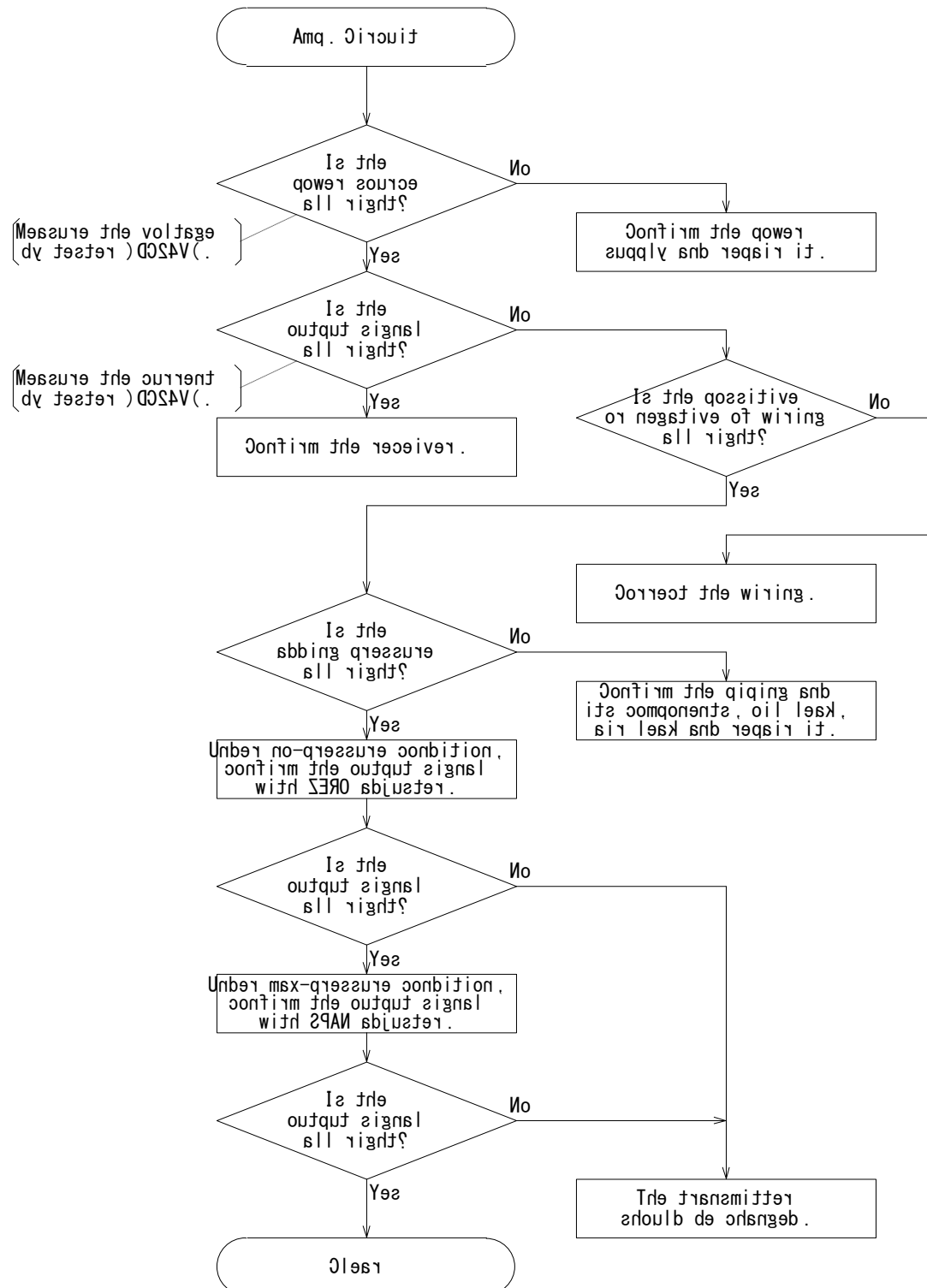
4. Perform an operation

4.1 Check the power supply voltage is in specification range.

4.2 Turn on the switch and begin the measurement.

4.3 Press equivalent the 0% of range pressure and confirm receiving instruments is also shows it is 0%.

2.Flow-chart for trouble-shooting



5. 保証範囲

(1) この製品の性能保証期間は納入後1年間と致します。

保証期間内に弊社の責による故障が生じた場合には、その機械の保証部分の交換をおこないます。

但し、次に該当する場合はこの保証範囲外とさせていただきます。

- ① お客様の不適切な取扱い、または使用による場合
- ② 弊社以外の改造、または修理による場合
- ③ その他天災、災害、争乱等で弊社の責にない場合
- ④ 電源、測定流体による故障の場合

尚、ここでいう保証は、納入品単体の保証を意味し納入品の故障により誘発される損害はご容赦頂きます。

(2) この製品は、人命にかかわるような状況の下で使用される機器、あるいはシステムに用いられることを目的として設計・製造されたものではありません。

(3) 記載内容は、お断りなく変更させて頂くことがあります。