

# KH15 Pressure Transmitter

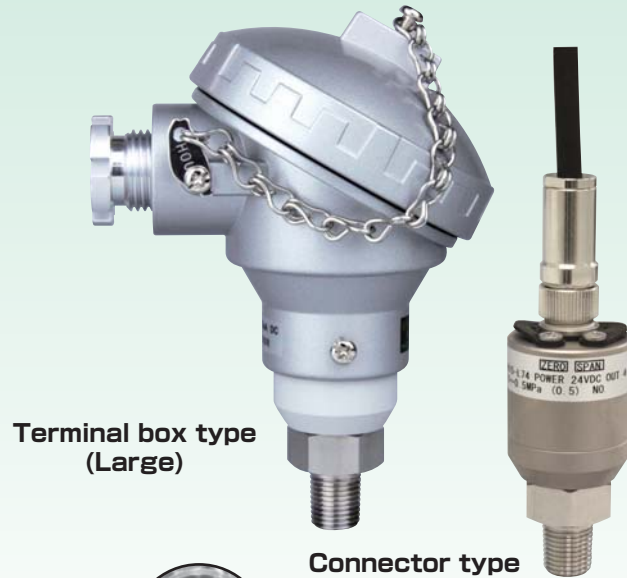
Wetted parts  
SUS316L available

## Overview

This pressure transmitter uses a semiconductor strain gauge type pressure sensor and built-in electronic circuit to convert pressure to 4 to 20mA DC, 0 to 5V DC, or 1 to 5V DC electric signal and to transmit the signal. The electrical and the mechanical reliability were improved, and zero and span adjustments were standard specification.

## Features

- Equipped zero and span adjustment
  - Selectable diaphragm material depending on applications (SUS630, SUS316L or Co-Ni alloy)
  - Enclosure rating IP67 (Cable type: IP52)
  - Versatile pressure ranges up to 120MPa (120MPa only available for 120MPa)
  - High speed response time 1ms or less
  - Equipped with check terminal (Terminal box type only)
- Output status can be checked without removing wirings



Terminal box type (Large)

Connector type



Flush diaphragm type can be selected by model no. KH15-□V4.

RoHS



Adaptable to various types of applications for liquids and gases measurements

Type	Connector type *1	Cable type	Terminal box type (Small)	Terminal box type (Large)
External appearance				
Enclosure (JIS C 0920)	IP67	IP52	IP67	IP67
CE marking	Applicable Directive: 2004/108/EC Applicable Standards: EN61326-1:2006;EN61326-2-3:2006			
Height*2	72 to 78mm*3	80 to 86mm*3	112 to 118mm	133 to 139mm
Weight	Approx. 240g (Include cable 2m)	Approx. 210g (Include cable 2m)	Approx. 220g	Approx. 360g

\*1 Mating connector (plug) has been altered due to model change since 2010.  
\*2 Depends on the connection size.  
\*3 Excluding connector and cable

### Features of sensor

#### Chemical Vapor-Deposited Semiconductor Strain Gauge (SS sensor)

Proven Chemical Vapor-Deposited Semiconductor Strain Gauge (SS sensor) achieves integral construction that semiconductor strain gauge, sensing part and fitting are all integrated without using any adhesive or corrosive materials to contribute to high durability and stability. Adaptable to various types of applications for liquids and gases measurements.



SS Sensor

### Sensor material

Diaphragm material is selectable.

Selectable materials

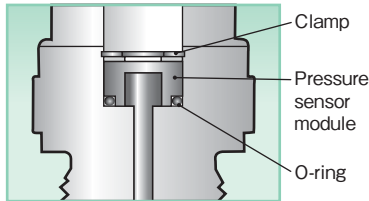
	Diaphragm	Fitting	Resistance level *1	Pressure range	Proof pressure
General use	SUS630	SUS316	○	0 to 0.5MPa → 0 to 100MPa	200% of pressure range. (150% for 35, 50MPa, 120% for 70, 100MPa)
Corrosion resistant	SUS316L		◎*2	0 to 0.5MPa → 0 to 35MPa	150% of pressure range. (120% for 3.5 to 35MPa range)
High corrosion resistant	Co-Ni alloy	SUS316	◎	0 to 0.5MPa → 0 to 120MPa	200% of pressure range. (150% for 35, 50MPa, 120% for 70, 100, 120MPa)

※ For the SUS316L, contains the inscription of "LC" on one side of the wrench (hexagonal) part.

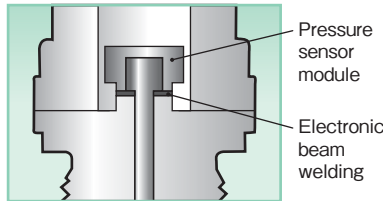
\*1 Diaphragm Material. \*2 Suitable for applications where corrosion proof, pitting corrosion proof are essential.

#### Difference in the internal structure

##### ① O-ring type (Low pressure range)



##### ② Fully welded type (Mid and high pressure ranges)



#### Applications

- Compressor Control
- HVAC and Refrigeration
- Process Automation and Control
- Pump Monitoring

### Connector / Cable

Mating connector (Plug): R04-P6F  
(Made by Tajimi Electronics Co., Ltd.)

- The wiring side connector (plug) differs from the connector of KH15-6□□, KH15-A□□, KH15-E□□ and KH15-G□□ type (former models) and is incompatible with former models.
- Please refer to Specifications 3 for former models.

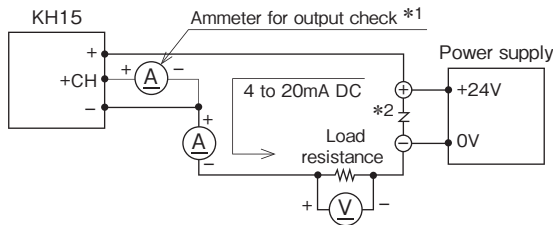
#### Cable type

	Environmental temperature	Conductor		Cable outer diameter (mm)	Minimum bend radius (mm)
		Cross-section area (mm <sup>2</sup> )	Construction (quantity/mm)		
Shielded cable (standard)	-20 to 60°C	0.2	7/0.18	φ 6.2	25
Heat resistant cable	-20 to 105°C	0.3	12/0.18	φ 6.0	25
Cold resistant cable	-40 to 80°C	0.3	12/0.18	φ 6.0	25

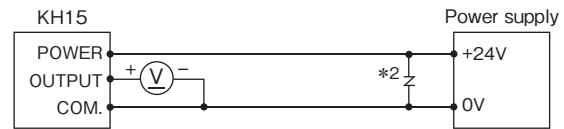
※Cable length: It can be made up to 5m for voltage output requirement(Accuracy: 1.0%F.S. if maximum 5m is required). 20m for current output requirement.

### Wiring / Example of external connection

Ex 1) 2-wire system (4 to 20mA DC)



Ex 2) 3-wire system (1 to 5V DC, 0 to 5V DC)



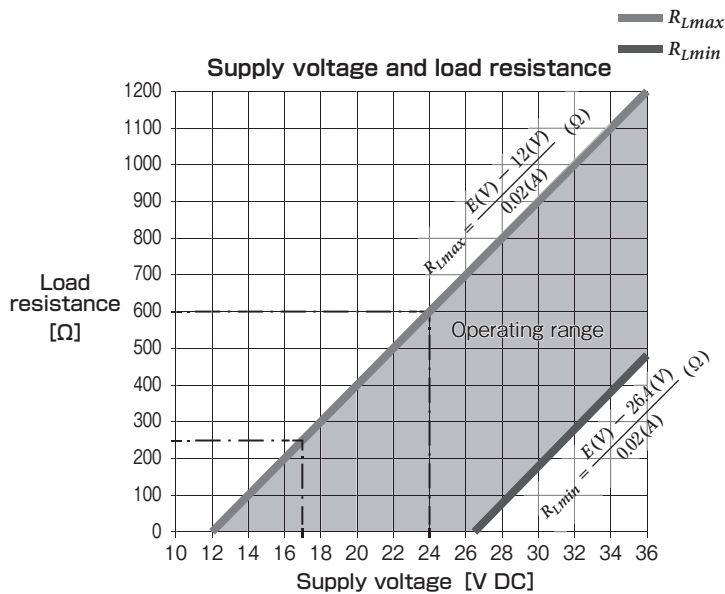
Ⓐ Receiver (DC Ammeter)    Ⓥ Receiver (DC Voltmeter)

\*1 For inspection, check with an ammeter whose internal resistance is 10 ohms or less.  
(The check terminal is not attached to connector type and cable type.)

\*2 When connecting equipment which can generate surge from the same power supply, connect a varistor etc. to protect KH15.

- Please use a shielded cable (Terminal box type)
- Do not use adhesive tape or glue sealing the end of cable as air vent tube is inside the cable to let atmospheric air into sensor where 1MPa and below are the rated pressure.

### Supply voltage and load resistance

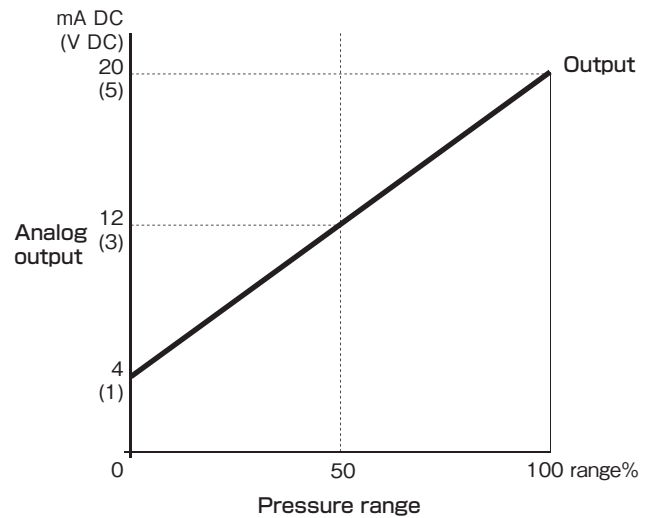


Maximum load resistance  $R_{Lmax} = \frac{E(V) - 12(V)}{0.02(A)} \text{ (}\Omega\text{)}$

Minimum load resistance  $R_{Lmin} = \frac{E(V) - 26.4(V)}{0.02(A)} \text{ , } R_{Lmin} \geq 0 \text{ (}\Omega\text{)}$

### Output characteristic

When 4 to 20mA DC



It is a linear of 4 to 20mA DC to the range.

### Diaphragm: SUS630 / Co-Ni (KH15-□□3, -□□4, -□□6)

#### Specifications 1

Item	Description
Fluid	Gas or Liquid (compatible with wetted material)
Operating environment	Places where there are no inflammable liquids or gases which may cause ignition or explosion under normal conditions.
Type 【Case construction】	Connector type IP67 *1 (JIS C 0920) Cable type IP52 With shielded cable 2m Terminal box type (Small) IP67 *2 (JIS C 0920) Terminal box type (Large) IP67 *2 (JIS C 0920) ※The diaphragm type is also available. Please contact NKS.
Connection	G1/4B, G3/8B, G1/2B, R1/8, R1/4, R3/8, R1/2, 1/4NPT, 3/8NPT, 1/2NPT
Sealing method	There are some types of connecting method as following to mate diaphragm part which is sensing element part, and fitting. O-ring type.....Diaphragm material: SUS630 (17-4PH) O-ring material: NBR Fully welded type.....Diaphragm material: SUS630 (17-4PH) or Co-Ni alloy (High corrosion-proof use)
Wetted parts	Diaphragm SUS630 (17-4PH) or Co-Ni alloy (Fully welded type only) Connection SUS316 O-ring NBR (O-ring type only) (Compatible with EPDM, Fluorine, Chloroprene)
Pressure range	O-ring type -0.1 to 0→0.1 to 0.3MPa, 0 to 0.1, 0 to 0.3MPa Fully welded type -0.1 to 0.5→-0.1 to 2MPa, 0 to 0.5→0 to 100MPa
Allowable maximum pressure	SUS630 / Co-Ni: 200% of pressure range (150% for 35, 50MPa range 120% for 70, 100MPa range)
Operating temperature	-20 to 70°C (for 0.1 MPa range or less, 0 to +70°C)*3 (No freezing or condensation)
Power source	24V DC±10% 12V DC±10% (3 wire system only) 15V DC±10% (3 wire system only)
Output	4 to 20mA DC (2 wire system) 0 to 5V DC (3 wire system) 1 to 5V DC (3 wire system)
Load resistance	500Ω max. (Current output) 10kΩ min. (Voltage output)
Transmission method	2 wire system or 3 wire system
Accuracy	±0.25%F.S., ±0.5%F.S., ±1.0%F.S. (Depends on pressure range)*4
Temperature coefficient	Zero } ±0.025%F.S./°C (Accuracy ±0.25%F.S.) ±0.05%F.S./°C (Accuracy ±0.5%F.S.) Span } ±0.1%F.S./°C (Accuracy ±1.0%F.S.)
Response time	1ms or less
RoHS directive	RoHS directive compatible
Weight	Connector type: Approx. 240g (Include cable 2m) Cable type: Approx. 210g (Include cable 2m) Terminal box type (Large): Approx. 360g Terminal box type (Small): Approx. 220g
CE marking	Applicable Directive: 2004/108/EC Applicable Standards: EN61326-1:2006;EN61326-2-3:2006

※Cable length: It can be made up to 5m for voltage output requirement (Accuracy: 1.0%F.S. if maximum 5m is required).  
20m for current output requirement.

- \*1 Please tighten the connector and the adjustment screw carefully, even though the case and the connector parts are waterproof construction (IP67).
- \*2 Ensure the careful waterproof treatment against the wiring port (Through hull fitting(JIS F 8801)is used), even though the case is waterproof structure (IP67).
- \*3 Be sure to use pipe siphon and so on within 70°C when wetted parts temperature exceeds 70°C (steam, the warm water, etc.).  
Please do the dewfall prevention measures when you measure the low temperature fluid such as cold water.
- \*4 The output accuracy of the pressure sensor is adjusted by factory on the following condition:  
  - Ambient temperature: 23°C±5°C
  - Mounting posture: Vertical mounting

### Diaphragm: SUS316L (KH15-□□G)

### Specifications 2

Item	Description
Fluid	Gas or Liquid (compatible with wetted material)
Operating environment	Places where there are no inflammable liquids or gases which may cause ignition or explosion under normal conditions.
Type 【Case construction】	Connector type           IP67*1 (JIS C 0920) Cable type                IP52    With shielded cable 2m Terminal box type (Small) IP67*2 (JIS C 0920) Terminal box type (Large) IP67*2 (JIS C 0920) ※Diaphragm seal type is also available. Please contact us.
Connection	G1/4B, G3/8B, G1/2B, R1/8, R1/4, R3/8, R1/2, 1/4NPT, 3/8NPT, 1/2NPT
Sealing method	Connecting method to mate diaphragm part which is sensing element part, and fitting. Fully welded type·····Diaphragm material
Wetted parts	Diaphragm   SUS316L Connection   SUS316L
Pressure range	Fully welded type -0.1 to 0.5→ -0.1 to 2MPa, 0 to 0.5→0 to 35MPa
Allowable maximum pressure	SUS316L: 150% of pressure range (In 3.5 to 35 MPa range, 120%) <span style="float: right;">Please select the SUS630 / Co-Ni specification when you need 200% of pressure range.</span>
Operating temperature	-20 to 70°C *3 (No freezing or condensation)
Power source	24V DC±10% 12V DC±10% (3 wire system only) 15V DC±10% (3 wire system only)
Output	4 to 20mA DC (2 wire system) 0 to 5V DC   (3 wire system) 1 to 5V DC   (3 wire system)
Load resistance	500Ω max. (Current output) 10kΩ min. (Voltage output)
Transmission method	2 wire system or 3 wire system
Accuracy	±0.5%F.S., ±1.0%F.S. *4
Temperature coefficient	Zero } Span } ±0.1%F.S./°C
Response time	1ms or less
RoHS directive	RoHS directive compatible
Weight	Connector type:            Approx. 240g (Include cable 2m) Cable type:                 Approx. 210g (Include cable 2m) Terminal box type (Large): Approx. 360g Terminal box type (Small): Approx. 220g
CE marking	Applicable Directive: 2004/108/EC Applicable Standards: EN61326-1:2006;EN61326-2-3:2006

※Cable length: It can be made up to 5m for voltage output requirement (Accuracy: 1.0%F.S. if maximum 5m is required).  
20m for current output requirement.

- \*1 Please tighten the connector and the adjustment screw carefully, even though the case and the connector parts are waterproof construction (IP67).
- \*2 Ensure the careful waterproof treatment against the wiring port (Through hull fitting〔JIS F 8801〕is used), even though the case is waterproof structure (IP67).
- \*3 Be sure to use pipe siphon and so on within 70°C when wetted parts temperature exceeds 70°C (steam, the warm water, etc.).  
Please do the dewfall prevention measures when you measure the low temperature fluid such as cold water.
- \*4 The output accuracy of the pressure sensor is adjusted by factory on the following condition:
  - Ambient temperature: 23°C±5°C
  - Mounting posture:    Vertical mounting

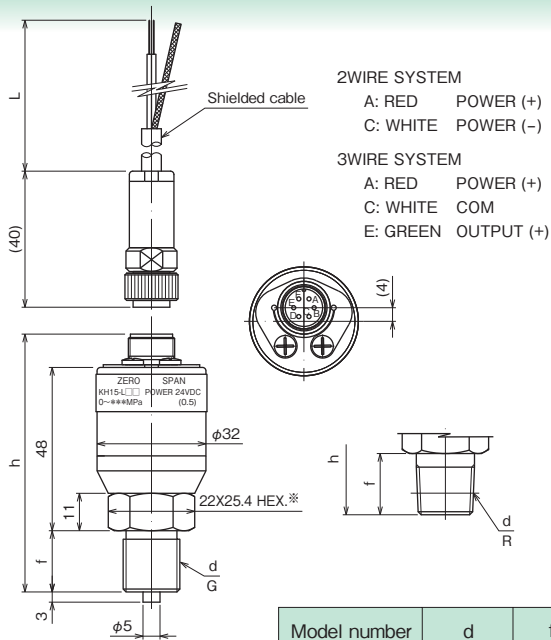
# KH15

## Pressure Transmitter

### Dimensions & terminal alignment

Unit: mm

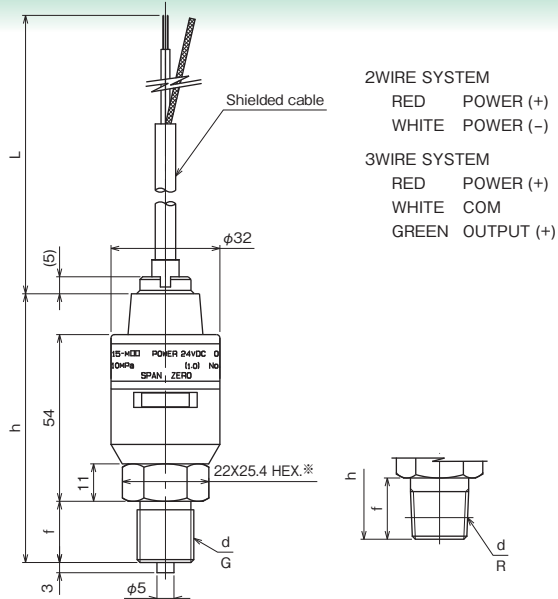
#### Connector type



Model number	d	f	h
KH15-L2□	G1/4B	16	74
KH15-L3□	G3/8B	18	76
KH15-L4□	G1/2B	20	78
KH15-L6□	R1/8	14	72
KH15-L7□	R1/4	16	74
KH15-L8□	R3/8	18	76
KH15-L9□	R1/2	20	78

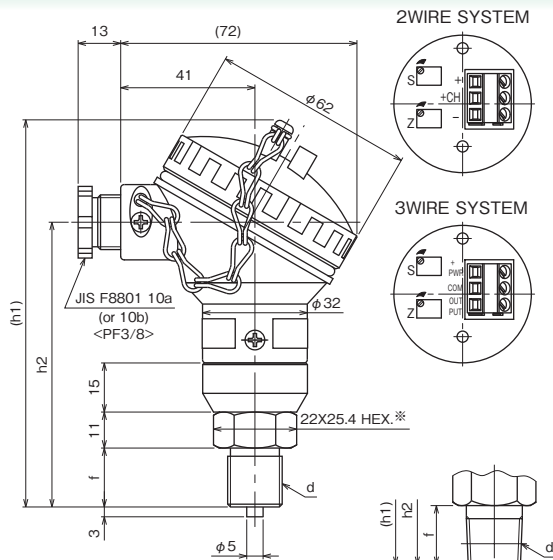
The wiring side connector (plug) differs from the connector of KH15-6□□, KH15-A□□, KH15-E□□ and KH15-G□□ type (former models) and is incompatible with former models.

#### Cable type



Model number	d	f	h
KH15-M2□	G1/4B	16	82
KH15-M3□	G3/8B	18	84
KH15-M4□	G1/2B	20	86
KH15-M6□	R1/8	14	80
KH15-M7□	R1/4	16	82
KH15-M8□	R3/8	18	84
KH15-M9□	R1/2	20	86

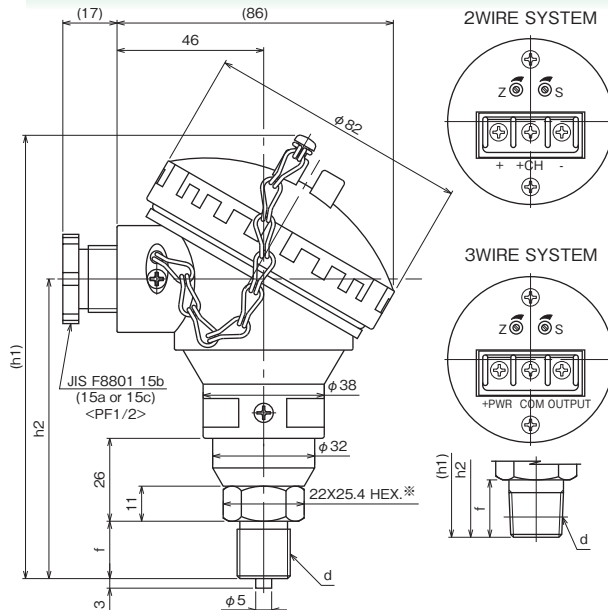
#### Terminal box type (small) Cable insertion connection



Outlet for electric wire	Cable outer dia. to conform
JIS 10a	ϕ7
JIS 10b	ϕ8

Model number	d	f	(h1)	h2
KH15-J2□	G1/4B	16	114	85
KH15-J3□	G3/8B	18	116	87
KH15-J4□	G1/2B	20	118	89
KH15-J6□	R1/8	14	112	83
KH15-J7□	R1/4	16	114	85
KH15-J8□	R3/8	18	116	87
KH15-J9□	R1/2	20	118	89

#### Terminal box type (large) Solderless terminal connection



Outlet for electric wire	Cable outer dia. to conform
JIS 15a	ϕ9
JIS 15b	ϕ10
JIS 15c	ϕ11

Model number	d	f	(h1)	h2
KH15-K2□	G1/4B	16	135	92
KH15-K3□	G3/8B	18	137	94
KH15-K4□	G1/2B	20	139	96
KH15-K6□	R1/8	14	133	90
KH15-K7□	R1/4	16	135	92
KH15-K8□	R3/8	18	137	94
KH15-K9□	R1/2	20	139	96

※When SUS316L wetted part is selected, "LC" mark is engraved on any position at hexagonal fitting part.







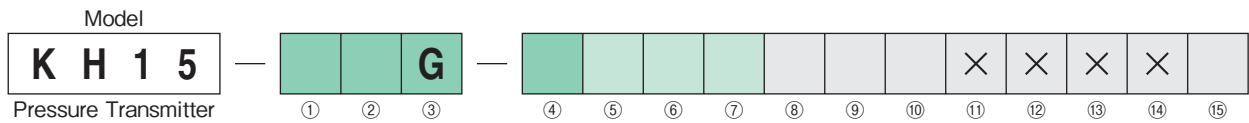
# KH15

## Pressure Transmitter

### Diaphragm: SUS316L (KH15-□□G)

#### Model number configuration 2

Please specify the model number, each specs and the range for ordering.



Model number		Product specifications	Additional specifications (Optional)
① Model	L	Connector type External adjustment with connector type shielded cable 2m	
	M	Cable type External adjustment with shielded cable 2m	
	J	Terminal box type (small) available with zero & span adjustment *	
	K	Terminal box type (large) available with zero & span adjustment *	
② Connection	2	G1/4B	
	3	G3/8B	
	4	G1/2B	
	6	R1/8	
	7	R1/4	
	8	R3/8	
	9	R1/2	
	K	1/4NPT	
	L	3/8NPT	
	M	1/2NPT	
③ Sealed type (Wetted parts)	G	Fully welded type (Diaphragm: SUS316L, Connection: SUS316L)	
④ Pressure range (MPa)	5	-0.1 to 0.5 (Compound)	
	6	-0.1 to 1 (Compound)	
	7	-0.1 to 2 (Compound)	
	E	0 to 0.5	
	G	0 to 1	
	J	0 to 2	
	K	0 to 3.5	
	L	0 to 5	
	N	0 to 10	
	Q	0 to 20	
R	0 to 35		

Please specify the pressure range and units separately besides selection of range code. Please select them by ③ the sealed type.

To next page

\* Zero adjustment, span adjustment:  
adjustable by opening the terminal box cover

· Mating connector (plug): R04-P6F  
(Made by Tajimi Electronics Co., Ltd.)

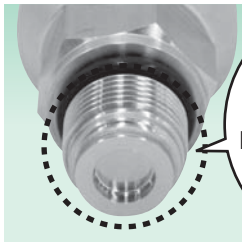


## Flush diaphragm

### Features of sensor

Safe and secure with non liquid-sealed design !

- A stainless steel sensor is placed on the end of a pressure receiving part. Its high resistance to corrosion makes it suitable for a wide variety of medium. (The metal diaphragm transmitter has achieved a non liquid-sealed structure.)
- The inner volume of the pressure receiving part and the volume of enclosed liquid have been significantly reduced.
  - ※The inner volume is down to 1/3 (compared to the conventional products).
- Supports various types of outputs. (4 to 20mA, 1 to 5V DC)
- A wide range of types are available. Connector type, Cable type, Terminal box type.



The pressure transmitter and sensing device is located at the end of the joint. (Metal diaphragm type)

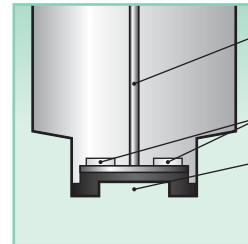
The shape varies depending on the pressure range. For a range of 2MPa or less, there is a projection for high sensitive measurements.



2MPa or less



3.5MPa and below



Electric wire  
Strain gauge  
Pressure receiving part

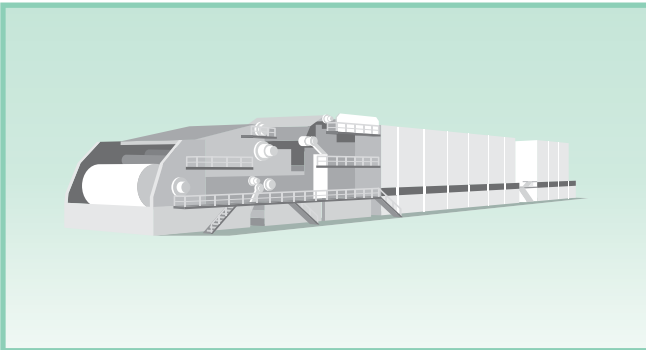
Diagram of the Internal structure

- \* Please consider our product SU10 for pressure ranges of 10 MPa or higher.
- \* Please consider our product KJ16 for the intrinsically safe type.

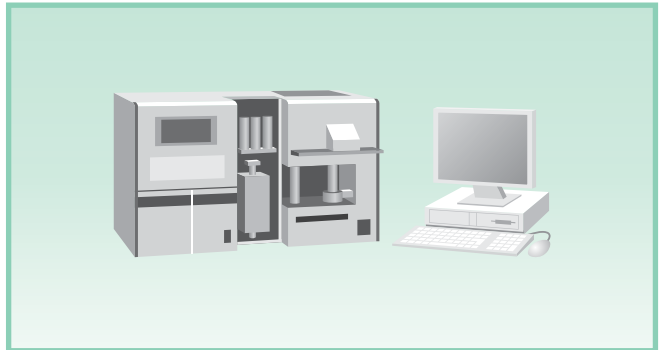
※Diaphragm Material of flush diaphragm type is SUS630 or Co-Ni alloy.

### Applications

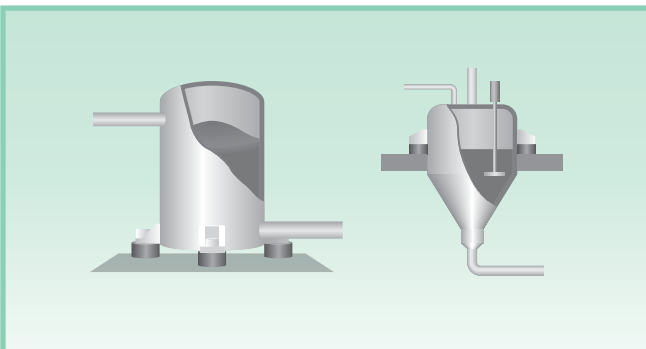
Monitoring various pressures relating to paper production (paper making machine)



Measuring the pressure of various analytical instruments



Monitoring the pressure of powder transport equipment and viscous fluids



Coating machines



Use KJ16 intrinsically safe transmitter with a safety barrier in hazardous area.

### Flush diaphragm

#### Specifications 3

Item	Description
Fluid	Gas or Liquid (compatible with wetted parts)
Operating environment	Places where there are no inflammable liquids or gases which may cause ignition or explosion under normal conditions.
Type [Enclosure]	Connector type IP67*1 (JIS C 0920) Cable type IP52 With shielded cable 2m Terminal box type (Small) IP67*2 (JIS C 0920) Terminal box type (Large) IP67*2 (JIS C 0920)
Connection	G3/8A (Tightening torque 30N·m)
Wetted parts	Diaphragm SUS630 (17-4PH) Connection SUS316 O-ring Hard NBR (Compatible with EPDM, Fluorine, Neoprene, etc.)
Pressure range	-0.1 to 1→0.1 to 2MPa 0 to 1→0 to 10MPa
Allowable maximum pressure	200% of pressure range
Operating temperature	-20 to 70°C*3 (No freezing or condensation)
Power source	24V DC±10% 12V DC±10% (3 wire system only) 15V DC±10% (3 wire system only)
Output	4 to 20mA DC (2 wire system) 0 to 5V DC (3 wire system) 1 to 5V DC (3 wire system)
Load resistance	500Ω max. (Current output) 10kΩ min. (Voltage output)
Transmission system	2 wire system or 3 wire system
Accuracy	±1.0%F.S.
Temperature coefficient	Zero } ±0.1%F.S./°C Span }
Response time	1ms or less
RoHS directive	RoHS directive compatible
Weight	Connector type: Approx. 240g (Include cable 2m) Cable type: Approx. 210g (Include cable 2m) Terminal box type (Large): Approx. 360g Terminal box type (Small): Approx. 220g
CE marking	Applicable Directive: 2004/108/EC Applicable Standards: EN61326-1:2006;EN61326-2-3:2006

※Please consider our product SU10 for pressure ranges of 10MPa or higher.

※Cable length: It can be made up to 5m for voltage output requirement (Accuracy: 1.0%F.S. if maximum 5m is required).  
20m for current output requirement.

- \*1 Please tighten the connector and the adjustment screw carefully, even though the case and the connector parts are waterproof construction (IP67).
- \*2 Ensure the careful waterproof treatment against the wiring port (Through hull fitting〔JIS F 8801〕is used), even though the case is waterproof structure (IP67).
- \*3 Be sure to use pipe siphon and so on within 70°C when wetted parts temperature exceeds 70°C (steam, the warm water, etc.).  
Please do the dewfall prevention measures when you measure the low temperature fluid such as cold water.
- \*4 The output accuracy of the pressure sensor is adjusted by factory on the following condition:
  - Ambient temperature: 23°C±5°C
  - Mounting posture: Vertical mounting

# KH15

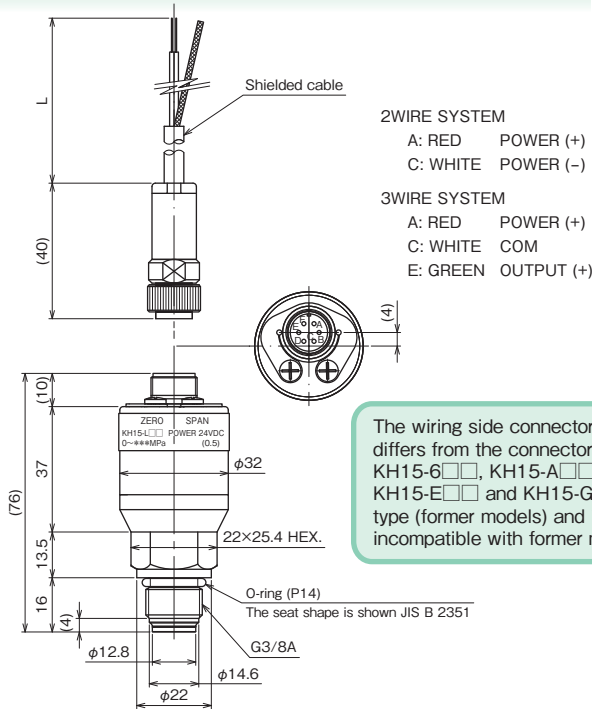
Pressure Transmitter

## Flush diaphragm

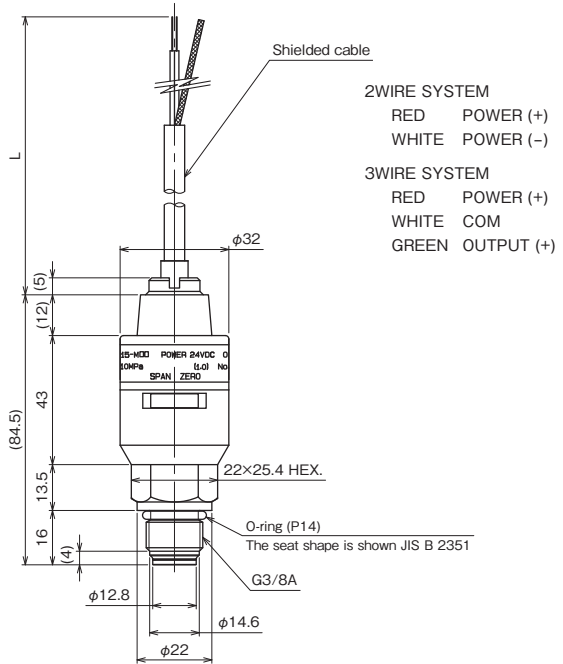
### Dimensions & terminal alignment

Unit: mm

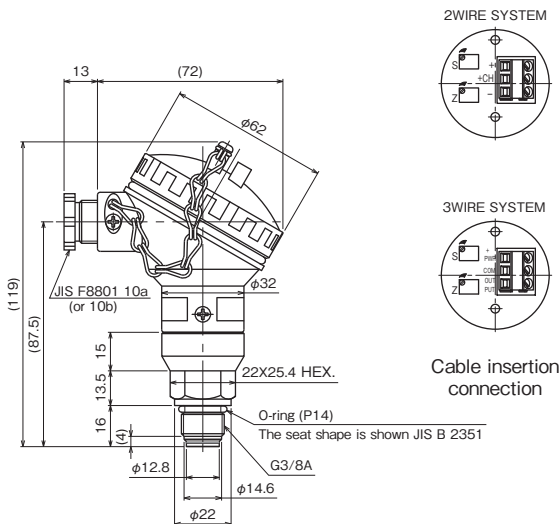
#### Connector type



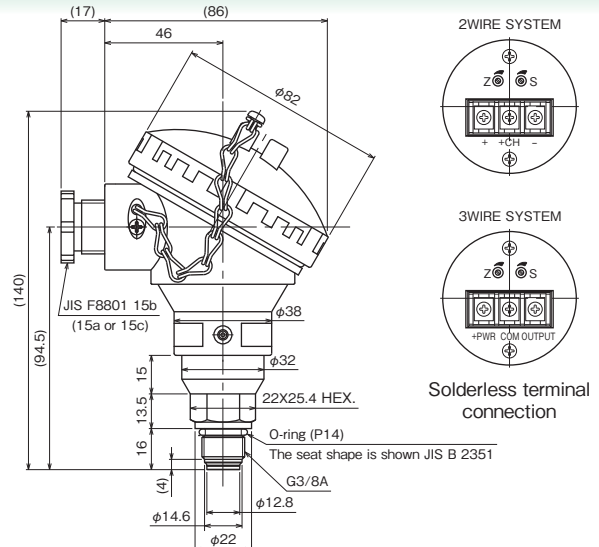
#### Cable type



#### Terminal box type (small) Cable insertion connection

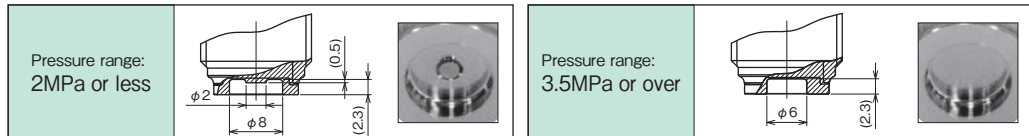


#### Terminal box type (large) Solderless terminal connection



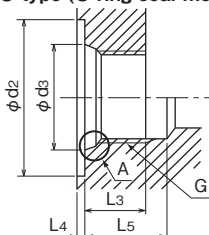
#### External dimensions of flush diaphragm type

Unit: mm

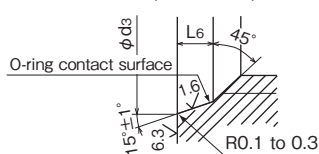


#### Shape and size of the mating port and parallel screw attachment of fitting (JIS B 2351-1 Appendix Table 7 excerpt)

##### O type (O-ring seal method)



##### A Enlarged view (Reference)



Screw size G	d2±0.3	d3+0.1 0	L3 (min.)	L4 (max.)	L5 (min.)	L6+0.4 0	The identification number of applicable O-ring
	O type						
3/8	28	18.6	12	2	18	2.5	P14

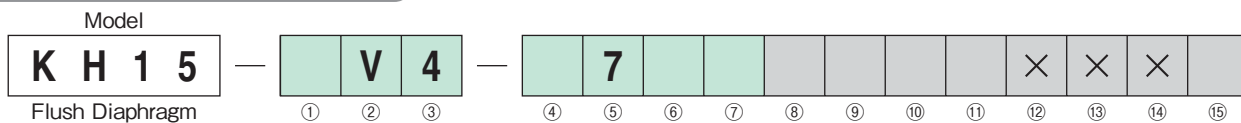
- Screw G is class A parallel pipe screw of JIS B 0202.
- Regarding O-ring contact surface of the O-type, there must be no scratches in the axial direction or spiral-shaped tool marks.
- Surface of the pocket of the d2 has to be flat and perpendicular to the axis of the screw.



### Flush diaphragm

#### Model number configuration 3

Please specify the model number, each specs and the range for ordering.



Flush Diaphragm Pressure Transmitter

Model number

Continued from previous page

Product specifications	Additional specifications (Optional)			
⑧ Outlet for electric wire ⑨ Cable type	⑧	⑨	⑧ Outlet for electric wire	⑨ Cable type
	Connector type			
	0	A	—	Shielded cable (standard)
	0	B	—	Heat resistant cable
	0	C	—	Cold resistant cable
	0	0	—	Not required (Transmitter unit only)
	Cable type (Cable length is 2m when there are no requirements of the cable length.)			
	0	A	—	Standard specification
	0	B	—	Heat resistant specification
	0	C	—	Cold resistant specification
	Terminal box type (Small) (attached no cable)			
	1	0	JIS 10a	—
	2	0	JIS 10b	—
	Terminal box type (Large) (attached no cable)			
	3	0	JIS 15a	—
4	0	JIS 15b	—	
5	0	JIS 15c	—	
⑩ Treatment	0	Not required		
	1	Use no oil		
	2	Use no water		
	3	Use no oil & water		
	9	Others		
⑪ O-ring	0	Hard NBR (Standard)		
	1	EPDM		
	2	Neoprene		
	3	Silicone		
	4	Fluorine-contained rubber		
	9	Others		
⑮ Documents	0	Not required		
	1	Required (Documents available upon request) Datasheet (Drawing / Specifications) Instruction manual Inspection procedure Mill test report Calibration test report (One-part one sheet) Inspection / Traceability certificate Strength calculation sheet Attending inspection		

• Cable length: It can be made up to 5m for voltage output requirement (Accuracy: 1.0%F.S. if maximum 5m is required), 20m for current output requirement.

• When the connector type is selected with no requirement of cable length, the mating connector (plug) is not attached. When the connector (plug) is necessary without cable, please request it separately.

• It is possible to output 4 to 20mA in the opposite direction by factory default setting. (Low pressure side: 20mA, High pressure side: 4mA) Please specify it when ordering.

#### Treatment against wetted parts

##### ■ Use no oil

Oil used in manufacturing the gauges had been flushed out & no oil residue remained inside its wetted parts.

##### ■ Use no water

Water used in manufacturing the gauges had been flushed out & no water residue remained inside its wetted parts.

##### ■ Use no oil & water

Oil/Water used in manufacturing the gauges had been flushed out & no oil/water residue remained inside its wetted parts.

• Please contact NAGANO KEIKI for diaphragm-seal type.

\* Specify code "X" to refer N/A





# KH15

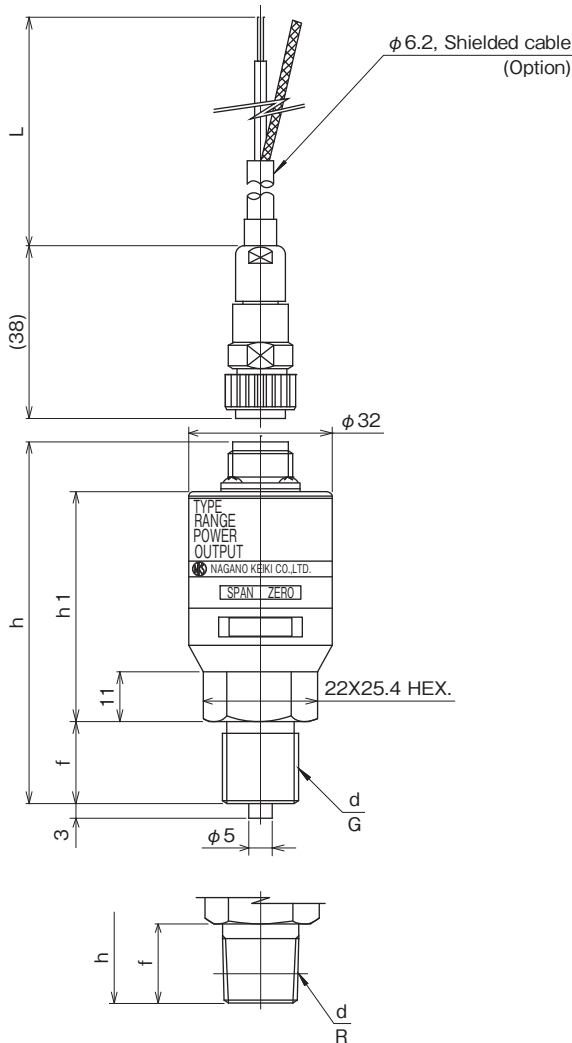
Pressure Transmitter

Former model (KH15-A□□)

## Dimensions & terminal alignment

Unit: mm

### Connector type

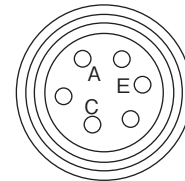


#### 2WIRE SYSTEM

A: RED POWER (+)  
C: WHITE POWER (-)

#### 3WIRE SYSTEM

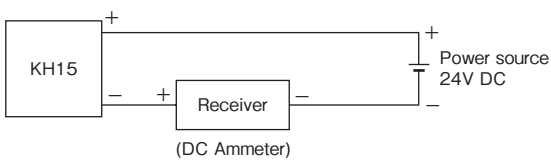
A: RED POWER (+)  
C: WHITE COM  
E: GREEN OUTPUT (+)



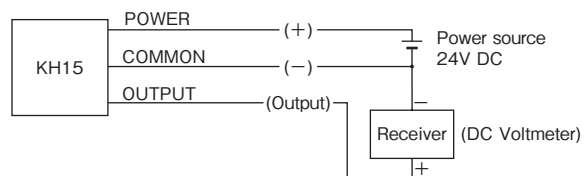
Model number	d	f	h	h1
KH15-A2□	G1/4B	16	77	51
KH15-A3□	G3/8B	18	79	51
KH15-A4□	G1/2B	20	81	51
KH15-A6□	R1/8	14	75	51
KH15-A7□	R1/4	16	77	51
KH15-A8□	R3/8	18	79	51
KH15-A9□	R1/2	20	81	51

## Wiring

### 2wire system



### 3 wire system



# KH15

## Pressure Transmitter

### Former model (KH15-A□□)

#### Model number configuration 4

Please specify the model number, each specs and the range for ordering.

Model

<b>K</b>	<b>H</b>	<b>1</b>	<b>5</b>	—	<b>A</b>						<b>0</b>			×	×	×	×			
					①	②	③		④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮

Pressure Transmitter

Model number	Product specifications	Additional specifications (Optional)
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① Model	A	Connector type Externally adjustable
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② Connection	2	G1/4B	Available in range 50MPa and below
	3	G3/8B	
	4	G1/2B	
	6	R1/8	
	7	R1/4	
	8	R3/8	
	9	R1/2	
	K	1/4NPT	
	L	3/8NPT	
	M	1/2NPT	

③ Sealed type	3	O-ring type (SUS630 (17-4PH), NBR, SUS316)
	4	Fully welded type (SUS630 (17-4PH), SUS316)

Please specify the pressure range and units separately besides selection of range code. Please select them by ③ the sealed type.

④ Pressure range (MPa)	Sealed type	④ Pressure range (MPa)	Available accuracy (%F.S.)			
			±0.25	±0.5	±1.0	
	O-ring type	1	-0.1 to 0 (Vacuum)	—	—	○
		2	0 to 0.1	—	—	○
		3	-0.1 to 0.1, 0.3 (Compound)	—	—	○
		4	0 to 0.3	—	—	○
		5	-0.1 to 0.5, 1, 2 (Compound)	—	○	○
		6	0 to 0.5, 1, 2	—	○	○
		7	0 to 3.5, 5, 10	○	○	○
	Fully welded type	A	-0.1 to 1, 2 (Compound)	—	○	○
		B	0 to 1, 2	—	○	○
		C	0 to 3.5, 5, 10	○	○	○
		D	0 to 20	○	○	○
		E	0 to 35	—	○	○
		F	0 to 50	—	○	○
		G	0 to 70	—	—	○
H	0 to 100	—	—	○		

⑤ Accuracy	4	±0.25%F.S.
	5	±0.5%F.S.
	7	±1.0%F.S.

To next page

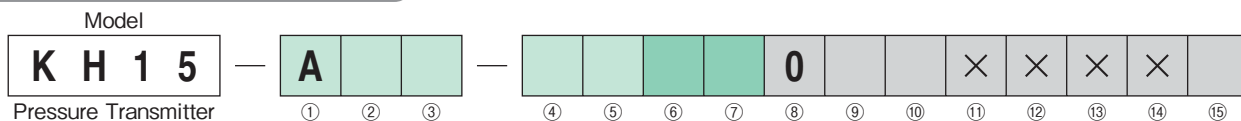
# KH15

## Pressure Transmitter

### Former model (KH15-A□□)

#### Model number configuration 4

Please specify the model number, each specs and the range for ordering.

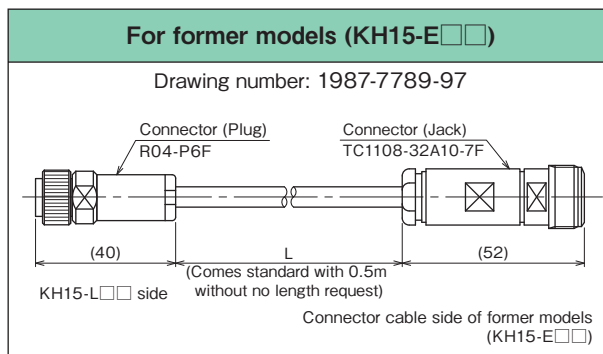
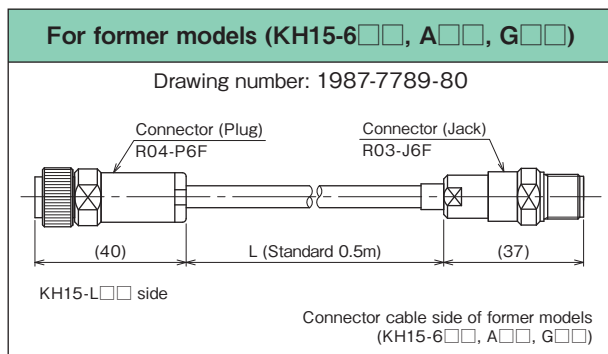


Model number	Product specifications	Additional specifications (Optional)
Continued from previous page	⑥ Power source	1 24V DC±10%
		6 12V DC±10% (Only 3 wire system can be made)
	⑦ Output	1 4 to 20mA DC (2 wire system)
6 0 to 5V DC (3 wire system)		
8 1 to 5V DC (3 wire system)		
<ul style="list-style-type: none"> <li>When no attached cable is selected, only the mating connector (plug) is attached. Please specify length after selecting the type of cable when the cable is necessary.</li> </ul>	⑨ Cable type	0 Attached no cable
		1 Shielded cable (standard)
		2 Heat resistant cable
		3 Cold resistant cable
<ul style="list-style-type: none"> <li>External adjustment: Can be adjusted from side holes</li> <li>Mating connector (plug): R03-P6M (Made by Tajimi Electronics Co., Ltd.)</li> </ul>	⑩ Treatment	0 Not required
		1 Use no oil
		2 Use no water
		3 Use no oil & water
<ul style="list-style-type: none"> <li>Consult us for diaphragm-seal type.</li> </ul>	⑮ Documents	0 Not required
		1 Required (Documents available upon request) Datasheet (Drawing / Specifications) Instruction manual Inspection procedure Mill test report Calibration test report (One-part one sheet) Inspection / Traceability certificate Strength calculation sheet Attending inspection

\* Specify code "X" to refer N/A

#### Conversion cable (option)

Please request the conversion cable below to convert with former models.



The connector (plug) specification change based on its renewal in 2010.

	Current model	Former models	
	KH15-L□□	KH15-6□□, A□□, G□□	KH15-E□□
Transmitter side connection	Female	Male	Male
Model number	R04-P6F	R03-P6M	TC1108-12A10-7M
Manufacturer	Tajimi Electronics Co., Ltd.		