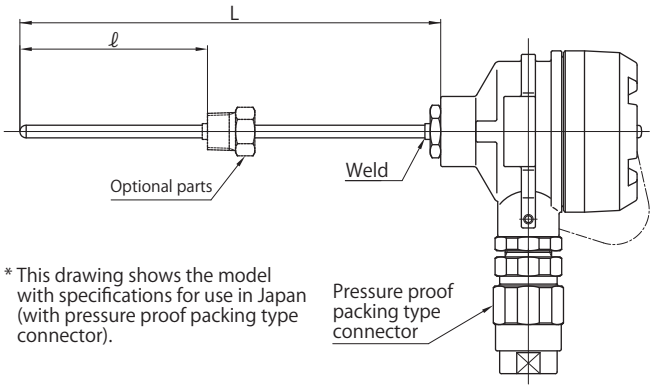
Explosion-Proof (Hydrogen Protection) Thermocouple



* This drawing shows the model with specifications for use in Japan (with pressure proof packing type connector).

Model code T99

T99- ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ / ⑩ ⑪

①	Certifying organization	Blank	TIIS (Japan)	NP	NEPSI (China)
		JP	CML (Japan)	KS	KOSHA (South Korea)
		EX	IECEx (International)	TR	TR CU (Russia/Kazakhstan/Belarus)
		EC	ATEX (Baseefa) (Europe)	PS	PESO (India)
		FM	FM (US)	TS	OSHA (Taiwan)
		FC	FMC (Canada)	IN	INMETRO (Brazil)
②	Terminal box	GE	Aluminum die-cast (ADC)	GED-CFT	Aluminum die-cast (ADC)*2 *3 (COPPER-FREE)
		GE-CFT	Aluminum die-cast (ADC)*2 *3 (COPPER-FREE)	GES	Stainless steel*2
		GED	Aluminum die-cast (ADC) (two-way)	GEDS	Stainless steel (two-way)*2
③	Length (Unit: mm)	L			
④	Sheath outer diameter (Unit: mm)	B,CN	φ1.6, φ2.0	F,FN	φ6.4, φ6.0
		D,DN	φ3.2, φ3.0	G	φ8.0
		E,EN	φ4.8, φ4.5		
⑤	Number of element wires	2	Single		
		4	Double		
⑥	Type	N	Ni-Cr-Si/Ni-Si	J	Fe/Cu-Ni
		K	Ni-Cr/Ni-Al	T	Cu/Cu-Ni
		E	Ni-Cr/Cu-Ni		
⑦	Measuring junction	5	(#5) Ungrounded/Separated	9	U (#9) Ungrounded
		8	G (#8) Grounded		
⑧	Sheath material	C	316SS	B	NCF600eq. (Inconel 600)
		D	310S SS		
⑨	Class	01	1 (Former JIS class 0.4)	05	ASTM SP.
		02	2 (Former JIS class 0.75)	06	1 (IEC)
		03	3 (Former JIS class 1.5)	07	2 (IEC)
		04	ASTM STD.	08	3 (IEC)
⑩	Optional parts		See "Standard Parts" section		
⑪	Immersion length (Unit: mm)	-ℓ			

Characteristics

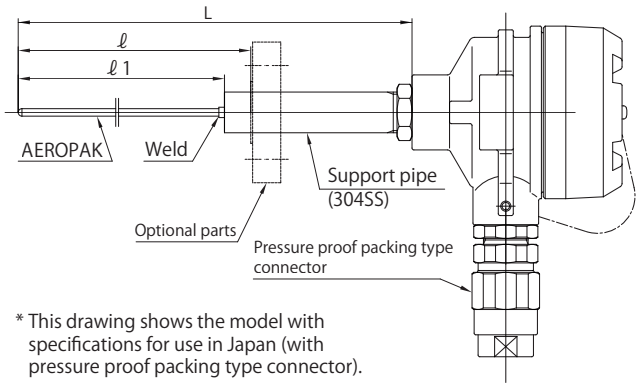
- New technical standards that conform to IEC standard (TIIS)
  Explosion proof class: Ex d II C T6 (for Japan/TIIS)
  Explosion proof class: Ex db eb II C T6 or T5 Gb
  Ex tb III C T85°C or T100°C Db (for Japan/CML)
- Suitable for use in environments with gas vapor, dust, etc. in conformance with IECEx and ATEX directives, and supplied with CE marking
  Explosion proof class: Ex db eb II C T6 & T5 Gb
  Ex tb III C T85°C & T100°C Db
- Suitable for use in environments with gas vapor, dust, etc. in conformance with NEC standard/CSA standard
  Explosion proof class: Class I, Div. 1 Gr. A, B, C & D (for US)
  Gr. B, C & D (for Canada)
  Class II/III, Div. 1 Gr. E, F & G (for US/Canada)
- Conforms to GB China explosion proof standards
  Explosion proof class: Ex de II C T5/T6 Gb Ex tD A21 IP66 T85°C/T100°C
- Conforms to South Korea safety standards
  Explosion proof class: Ex de II C T5/T6
- Conforms to EAC TR CU customs union regulations for Russia, Kazakhstan, and Belarus
  Explosion proof class: 1Ex de II C T5/T6 Gb X Ex tb III C T95°C/80°C Db X
- Conforms to India safety standards
  Explosion proof class: Ex de II C T6 Ta
- Excellent protection class: IP66 (for Japan, international, Europe, China, South Korea, Russia, Kazakhstan, Belarus, Taiwan, and India), NEMA4 & 4X (for US), and Type 4 & 4X (for Canada)
- Models with two-wire temperature transmitters (4 to 20 mA output) also supported
- Light and compact body: Made of aluminum die-cast (stainless steel also available)
- Pressure proof packing type connector equipped as standard (for Japan)
- Multi-paired type also available (for Japan, certified by IECEx, ATEX, FM, NEPSI, and PESO)

*1: The type names on the certification certificates are indicated in the table on the right.
*2: Cannot be used as product with type approval in Japan (TIIS).
*3: The standard coating color is blue.

Japan (TIIS) type approved product	T99
Japan (CML) certified product	OFP
International/ATEX (Baseefa) certified product	OFP
FM certified product	T99
NEPSI certified product	OFP
TR CU certified product	OFP
KOSHA certified product	OFP
PESO certified product	OFP
OSHA certified product	OFP
INMETRO certified product	OFP

Explosion-Proof (Hydrogen Protection) Thermocouple with Support Pipe

Model code T99S



* This drawing shows the model with specifications for use in Japan (with pressure proof packing type connector).

T99S*1- ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ / ⑪ ⑫

①	Certifying organization	Blank	TIIS (Japan)	NP	NEPSI (China)
		JP	CML (Japan)	KS	KOSHA (South Korea)
		EX	IECEx (International)	TR	TR CU (Russia/Kazakhstan/Belarus)
		EC	ATEX (Baseefa) (Europe)	PS	PESO (India)
		FM	FM (US)	TS	OSHA (Taiwan)
		FC	FMC (Canada)	IN	INMETRO (Brazil)
②	Structure	-1	ϕ22 support pipe		
③	Terminal box	GE	Aluminum die-cast (ADC)	GED-CFT	Aluminum die-cast (ADC)*2 *3 (COPPER-FREE)
		GE-CFT	Aluminum die-cast (ADC)*2 *3 (COPPER-FREE)	GES	Stainless steel*2
		GED	Aluminum die-cast (ADC) (two-way)	GEDS	Stainless steel (two-way)*2
④	Length (Unit: mm)	L			
⑤	Sheath outer diameter	B,CN	ϕ1.6, ϕ2.0	F,FN	ϕ6.4, ϕ6.0
		D,DN	ϕ3.2, ϕ3.0	G	ϕ8.0
		E,EN	ϕ4.8, ϕ4.5		
⑥	Number of element wires	2	Single	4	Double
⑦	Type	N	Ni-Cr-Si/Ni-Si	J	Fe/Cu-Ni
		K	Ni-Cr/Ni-Al	T	Cu/Cu-Ni
		E	Ni-Cr/Cu-Ni		
⑧	Measuring junction	5	(#5) Ungrounded/Separated	9	U (#9) Ungrounded
		8	G (#8) Grounded		
⑨	Sheath material	C	316SS	B	NCF600eq. (Inconel 600)
		D	310S SS		
⑩	Class	01	1 (Former JIS class 0.4)	05	ASTM SP.
		02	2 (Former JIS class 0.75)	06	1 (IEC)
		03	3 (Former JIS class 1.5)	07	2 (IEC)
		04	ASTM STD.	08	3 (IEC)
⑪	Optional parts		See "Standard Parts" section		
⑫	Immersion length		N/A		

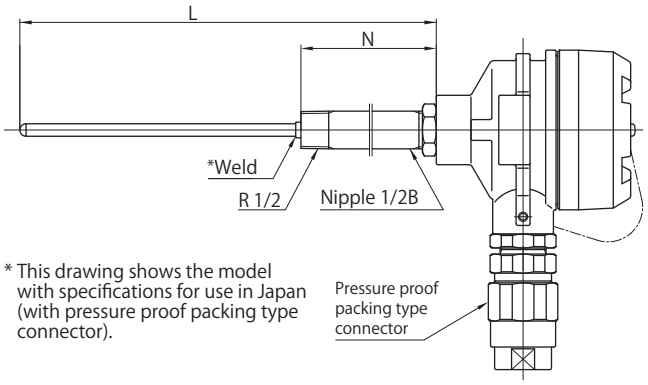
Characteristics

- New technical standards that conform to IEC standard (TIIS)
  Explosion proof class: Ex d II C T6 (for Japan/TIIS)
  Explosion proof class: Ex db eb II C T6 or T5 Gb
  Ex tb III C T85°C or T100°C Db (for Japan/CML)
- Suitable for use in environments with gas vapor, dust, etc. in conformance with IECEx and ATEX directives, and supplied with CE marking
  Explosion proof class: Ex db eb II C T6 & T5 Gb
  Ex tb III C T85°C & T100°C Db
- Suitable for use in environments with gas vapor, dust, etc. in conformance with NEC standard/CSA standard
  Explosion proof class: Class I, Div. 1 Gr. A, B, C & D (for US)
  Gr. B, C & D (for Canada)
  Class II/III, Div. 1 Gr. E, F & G (for US/Canada)
- Conforms to GB China explosion proof standards
  Explosion proof class: Ex de II C T5/T6 Gb Ex tD A21 IP66 T85°C/T100°C
- Conforms to South Korea safety standards
  Explosion proof class: Ex de II C T5/T6
- Conforms to EAC TR CU customs union regulations for Russia, Kazakhstan, and Belarus
  Explosion proof class: 1Ex de II C T5/T6 Gb X Ex tb III C T95°C/80°C Db X
- Conforms to India safety standards
  Explosion proof class: Ex de II C T6 Ta
- Excellent protection class: IP66 (for Japan, international, Europe, China, South Korea, Russia, Kazakhstan, Belarus, Taiwan, and India), NEMA4 & 4X (for US), and Type 4 & 4X (for Canada)
- Models with two-wire temperature transmitters (4 to 20 mA output) also supported
- Light and compact body: Made of aluminum die-cast (stainless steel also available)
- Pressure proof packing type connector equipped as standard (for Japan)
- Multi-paired type also available (for Japan, certified by IECEx, ATEX, FM, NEPSI, and PESO)

*1: The type names on the certification certificates are indicated in the table on the right.
*2: Cannot be used as product with type approval in Japan (TIIS).
*3: The standard coating color is blue.

Japan (TIIS) type approved product	T409
Japan (CML) certified product	OFP
International/ATEX (Baseefa) certified product	OFP
FM certified product	T409
NEPSI certified product	OFP
TR CU certified product	OFP
KOSHA certified product	OFP
PESO certified product	OFP
OSHA certified product	OFP
INMETRO certified product	OFP

Explosion-Proof (Hydrogen Protection) Thermocouple with Nipple



* This drawing shows the model with specifications for use in Japan (with pressure proof packing type connector).

Model code T99N

T99N*1- ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ / ⑪ ⑫

①	Certifying organization	Blank	TIIS (Japan)	NP	NEPSI (China)
		JP	CML (Japan)	KS	KOSHA (South Korea)
		EX	IECEx (International)	TR	TR CU (Russia/Kazakhstan/Belarus)
		EC	ATEX (Baseefa) (Europe)	PS	PESO (India)
		FM	FM (US)	TS	OSHA (Taiwan)
		FC	FMC (Canada)	IN	INMETRO (Brazil)
②	Structure	-1	N=100 *Not welded	-3	N=100 *Welded
		-2	N=150 *Not welded	-4	N=150 *Welded
③	Terminal box	GE	Aluminum die-cast (ADC)	GED-CFT	Aluminum die-cast (ADC)*2 *3 (COPPER-FREE)
		GE-CFT	Aluminum die-cast (ADC)*2 *3 (COPPER-FREE)	GES	Stainless steel*2
		GED	Aluminum die-cast (ADC) (two-way)	GEDS	Stainless steel (two-way)*2
④	Length (Unit: mm)	L			
⑤	Sheath outer diameter	D,DN	ϕ3.2, ϕ3.0	F,FN	ϕ6.4, ϕ6.0
		E,EN	ϕ4.8, ϕ4.5	G	ϕ8.0
⑥	Number of element wires	2	Single	4	Double
⑦	Type	N	Ni-Cr-Si/Ni-Si	J	Fe/Cu-Ni
		K	Ni-Cr/Ni-Al	T	Cu/Cu-Ni
		E	Ni-Cr/Cu-Ni		
⑧	Measuring junction	5	(#5) Ungrounded/Separated		
		8	G (#8) Grounded		
		9	U (#9) Ungrounded		
⑨	Sheath material	C	316SS	B	NCF600eq. (Inconel 600)
		D	310S SS		
⑩	Class	01	1 (Former JIS class 0.4)	05	ASTM SP.
		02	2 (Former JIS class 0.75)	06	1 (IEC)
		03	3 (Former JIS class 1.5)	07	2 (IEC)
		04	ASTM STD.	08	3 (IEC)
⑪	Optional parts		See "Standard Parts" section		
⑫	Immersion length		N/A		

Characteristics

- New technical standards that conform to IEC standard (TIIS)
  Explosion proof class: Ex d II C T6 (for Japan/TIIS)
  Explosion proof class: Ex db eb II C T6 or T5 Gb
  Ex tb III C T85°C or T100°C Db (for Japan/CML)
- Suitable for use in environments with gas vapor, dust, etc. in conformance with IECEx and ATEX directives, and supplied with CE marking
  Explosion proof class: Ex db eb II C T6 & T5 Gb
  Ex tb III C T85°C & T100°C Db
- Suitable for use in environments with gas vapor, dust, etc. in conformance with NEC standard/CSA standard
  Explosion proof class: Class I, Div. 1 Gr. A, B, C & D (for US)
  Gr. B, C & D (for Canada)
  Class II/III, Div. 1 Gr. E, F & G (for US/Canada)
- Conforms to GB China explosion proof standards
  Explosion proof class: Ex de II C T5/T6 Gb Ex tD A21 IP66 T85°C/T100°C
- Conforms to South Korea safety standards
  Explosion proof class: Ex de II C T5/T6
- Conforms to EAC TR CU customs union regulations for Russia, Kazakhstan, and Belarus
  Explosion proof class: 1Ex de II C T5/T6 Gb X Ex tb III C T95°C/80°C Db X
- Conforms to India safety standards
  Explosion proof class: Ex de II C T6 Ta
- Excellent protection class: IP66 (for Japan, international, Europe, China, South Korea, Russia, Kazakhstan, Belarus, Taiwan, and India), NEMA4 & 4X (for US), and Type 4 & 4X (for Canada)
- Models with two-wire temperature transmitters (4 to 20 mA output) also supported
- Light and compact body: Made of aluminum die-cast (stainless steel also available)
- Pressure proof packing type connector equipped as standard (for Japan)
- Multi-paired type also available (for Japan, certified by IECEx, ATEX, FM, NEPSI, and PESO)

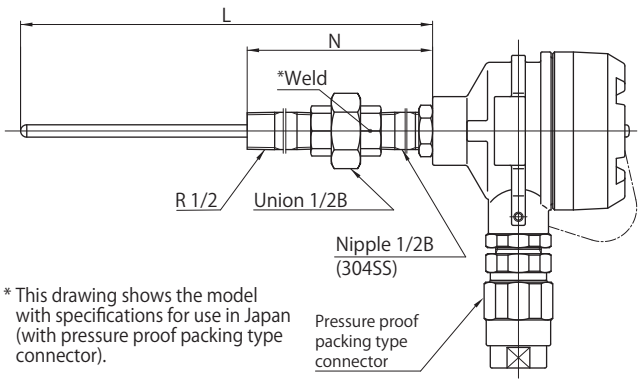
*1: The type names on the certification certificates are indicated in the table on the right.
*2: Cannot be used as product with type approval in Japan (TIIS).
*3: The standard coating color is blue.

Japan (TIIS) type approved product	T99
Japan (CML) certified product	OFP
International/ATEX (Baseefa) certified product	OFP
FM certified product	T99
NEPSI certified product	OFP
TR CU certified product	OFP
KOSHA certified product	OFP
PESO certified product	OFP
OSHA certified product	OFP
INMETRO certified product	OFP

OKAZAKI MANUFACTURING COMPANY

Explosion-Proof (Hydrogen Protection) Thermocouple with Nipple/Union

Model code T99U



* This drawing shows the model with specifications for use in Japan (with pressure proof packing type connector).

T99U*1- ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ / ⑪ ⑫

①	Certifying organization	Blank	TIIS (Japan)	NP	NEPSI (China)
		JP	CML (Japan)	KS	KOSHA (South Korea)
		EX	IECEx (International)	TR	TR CU (Russia/Kazakhstan/Belarus)
		EC	ATEX (Baseefa) (Europe)	PS	PESO (India)
		FM	FM (US)	TS	OSHA (Taiwan)
		FC	FMC (Canada)	IN	INMETRO (Brazil)
②	Structure	-2	N=150 *Not welded		
		-4	N=150 *Welded		
③	Terminal box	GE	Aluminum die-cast (ADC)	GED-CFT	Aluminum die-cast (ADC)*2 *3 (COPPER-FREE)
		GE-CFT	Aluminum die-cast (ADC)*2 *3 (COPPER-FREE)	GES	Stainless steel*2
		GED	Aluminum die-cast (ADC) (two-way)	GEDS	Stainless steel (two-way)*2
④	Length (Unit: mm)	L			
⑤	Sheath outer diameter	D,DN	ϕ3.2, ϕ3.0	F,FN	ϕ6.4, ϕ6.0
		E,EN	ϕ4.8, ϕ4.5	G	ϕ8.0
⑥	Number of element wires	2	Single	4	Double
⑦	Type	N	Ni-Cr-Si/Ni-Si	J	Fe/Cu-Ni
		K	Ni-Cr/Ni-Al	T	Cu/Cu-Ni
		E	Ni-Cr/Cu-Ni		
⑧	Measuring junction	5	(#5) Ungrounded/Separated		
		8	G (#8) Grounded		
		9	U (#9) Ungrounded		
⑨	Sheath material	C	316SS	B	NCF600eq. (Inconel 600)
		D	310S SS		
⑩	Class	01	1 (Former JIS class 0.4)	05	ASTM SP.
		02	2 (Former JIS class 0.75)	06	1 (IEC)
		03	3 (Former JIS class 1.5)	07	2 (IEC)
		04	ASTM STD.	08	3 (IEC)
⑪	Optional parts		See "Standard Parts" section		
⑫	Immersion length		N/A		

Characteristics

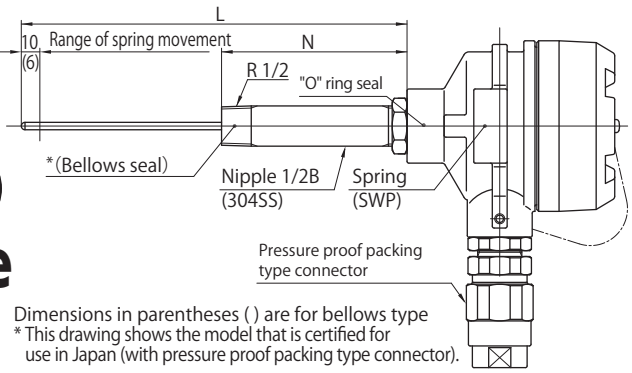
- New technical standards that conform to IEC standard (TIIS)
  Explosion proof class: Ex d II C T6 (for Japan/TIIS)
  Explosion proof class: Ex db eb II C T6 or T5 Gb
  Ex tb III C T85°C or T100°C Db (for Japan/CML)
- Suitable for use in environments with gas vapor, dust, etc. in conformance with IECEx and ATEX directives, and supplied with CE marking
  Explosion proof class: Ex db eb II C T6 & T5 Gb
  Ex tb III C T85°C & T100°C Db
- Suitable for use in environments with gas vapor, dust, etc. in conformance with NEC standard/CSA standard
  Explosion proof class: Class I, Div. 1 Gr. A, B, C & D (for US)
  Gr. B, C & D (for Canada)
  Class II/III, Div. 1 Gr. E, F & G (for US/Canada)
- Conforms to GB China explosion proof standards
  Explosion proof class: Ex de II C T5/T6 Gb Ex tD A21 IP66 T85°C/T100°C
- Conforms to South Korea safety standards
  Explosion proof class: Ex de II C T5/T6
- Conforms to EAC TR CU customs union regulations for Russia, Kazakhstan, and Belarus
  Explosion proof class: 1Ex de II C T5/T6 Gb X Ex tb III C T95°C/80°C Db X
- Conforms to India safety standards
  Explosion proof class: Ex de II C T6 Ta
- Excellent protection class: IP66 (for Japan, international, Europe, China, South Korea, Russia, Kazakhstan, Belarus, Taiwan, and India), NEMA4 & 4X (for US), and Type 4 & 4X (for Canada)
- Models with two-wire temperature transmitters (4 to 20 mA output) also supported
- Light and compact body: Made of aluminum die-cast (stainless steel also available)
- Pressure proof packing type connector equipped as standard (for Japan)
- Multi-paired type also available (for Japan, certified by IECEx, ATEX, FM, NEPSI, and PESO)

*1: The type names on the certification certificates are indicated in the table on the right.
*2: Cannot be used as product with type approval in Japan (TIIS).
*3: The standard coating color is blue.

Japan (TIIS) type approved product	T99
Japan (CML) certified product	OFP
International/ATEX (Baseefa) certified product	OFP
FM certified product	T99
NEPSI certified product	OFP
TR CU certified product	OFP
KOSHA certified product	OFP
PESO certified product	OFP
OSHA certified product	OFP
INMETRO certified product	OFP

Spring Loaded Explosion-Proof (Hydrogen Protection) Thermocouple with Nipple

Model code T409N



Dimensions in parentheses ( ) are for bellows type
* This drawing shows the model that is certified for use in Japan (with pressure proof packing type connector).

T409N*1- ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ / ⑪ ⑫

①	Certifying organization	Blank	TIIS (Japan)	NP	NEPSI (China)
		JP	CML (Japan)	KS	KOSHA (South Korea)
		EX	IECEx (International)	TR	TR CU (Russia/Kazakhstan/Belarus)
		EC	ATEX (Baseefa) (Europe)	PS	PESO (India)
		FM	FM (US)	TS	OSHA (Taiwan)
		FC	FMC (Canada)	IN	INMETRO (Brazil)
②	Structure	-1	N=100	-3	N=100 *Bellows seal
		-2	N=150	-4	N=150 *Bellows seal
③	Terminal box	GE	Aluminum die-cast (ADC)	GED-CFT	Aluminum die-cast (ADC)*2 *3 (COPPER-FREE)
		GE-CFT	Aluminum die-cast (ADC)*2 *3 (COPPER-FREE)	GES	Stainless steel*2
		GED	Aluminum die-cast (ADC) (two-way)	GEDS	Stainless steel (two-way)*2
④	Length (Unit: mm)	L			
⑤	Sheath outer diameter	D,DN	ϕ3.2, ϕ3.0	F,FN	ϕ6.4, ϕ6.0
		E,EN	ϕ4.8, ϕ4.5	G	ϕ8.0
⑥	Number of element wires	2	Single	4	Double
⑦	Type	N	Ni-Cr-Si/Ni-Si	J	Fe/Cu-Ni
		K	Ni-Cr/Ni-Al	T	Cu/Cu-Ni
		E	Ni-Cr/Cu-Ni		
⑧	Measuring junction	5	(#5) Ungrounded/Separated		
		8	G (#8) Grounded		
		9	U (#9) Ungrounded		
⑨	Sheath material	C	316SS	B	NCF600eq. (Inconel 600)
		D	310S SS		
⑩	Class	01	1 (Former JIS class 0.4)	05	ASTM SP.
		02	2 (Former JIS class 0.75)	06	1 (IEC)
		03	3 (Former JIS class 1.5)	07	2 (IEC)
		04	ASTM STD.	08	3 (IEC)
⑪	Optional parts		See "Standard Parts" section		
⑫	Immersion length		N/A		

Characteristics

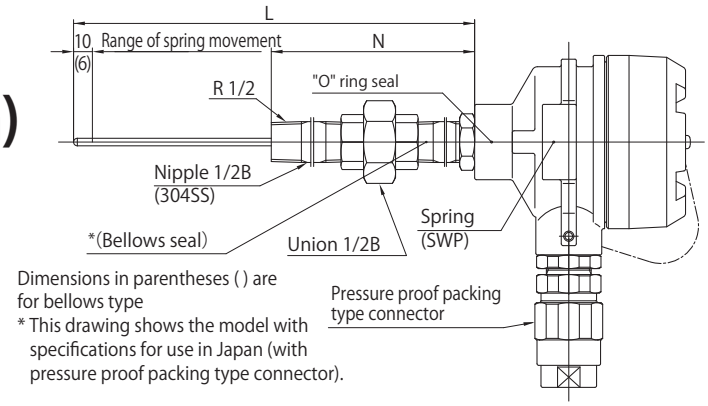
- New technical standards that conform to IEC standard (TIIS)
  Explosion proof class: Ex d II C T6 (for Japan/TIIS)
  Explosion proof class: Ex db eb II C T6 or T5 Gb
  Ex tb III C T85°C or T100°C Db (for Japan/CML)
- Suitable for use in environments with gas vapor, dust, etc. in conformance with IECEx and ATEX directives, and supplied with CE marking
  Explosion proof class: Ex db eb II C T6 & T5 Gb
  Ex tb III C T85°C & T100°C Db
- Suitable for use in environments with gas vapor, dust, etc. in conformance with NEC standard/CSA standard
  Explosion proof class: Class I, Div. 1 Gr. A, B, C & D (for US)
  Gr. B, C & D (for Canada)
  Class II/III, Div. 1 Gr. E, F & G (for US/Canada)
- Conforms to GB China explosion proof standards
  Explosion proof class: Ex de II C T5/T6 Gb Ex tD A21 IP66 T85°C/T100°C
- Conforms to South Korea safety standards
  Explosion proof class: Ex de II C T5/T6
- Conforms to EAC TR CU customs union regulations for Russia, Kazakhstan, and Belarus
  Explosion proof class: 1Ex de II C T5/T6 Gb X Ex tb III C T95°C/80°C Db X
- Conforms to India safety standards
  Explosion proof class: Ex de II C T6 Ta
- Excellent protection class: IP66 (for Japan, international, Europe, China, South Korea, Russia, Kazakhstan, Belarus, Taiwan, and India), NEMA4 & 4X (for US), and Type 4 & 4X (for Canada)
- Models with two-wire temperature transmitters (4 to 20 mA output) also supported
- Light and compact body: Made of aluminum die-cast (stainless steel also available)
- Pressure proof packing type connector equipped as standard (for Japan)
- Multi-paired type also available (for Japan, certified by IECEx, ATEX, FM, NEPSI, and PESO)

*1: The type names on the certification certificates are indicated in the table on the right.
*2: Cannot be used as product with type approval in Japan (TIIS).
*3: The standard coating color is blue.

Japan (TIIS) type approved product	T409
Japan (CML) certified product	OFP
International/ATEX (Baseefa) certified product	OFP
FM certified product	T409
NEPSI certified product	OFP
TR CU certified product	OFP
KOSHA certified product	OFP
PESO certified product	OFP
OSHA certified product	OFP
INMETRO certified product	OFP

Spring Loaded Explosion-Proof (Hydrogen Protection) Thermocouple with Nipple/Union

Model code T409U



T409U*1- ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ / ⑪ ⑫

①	Certifying organization	Blank	TIIS (Japan)	NP	NEPSI (China)
		JP	CML (Japan)	KS	KOSHA (South Korea)
		EX	IECEx (International)	TR	TR CU (Russia/Kazakhstan/Belarus)
		EC	ATEX (Baseefa) (Europe)	PS	PESO (India)
		FM	FM (US)	TS	OSHA (Taiwan)
		FC	FMC (Canada)	IN	INMETRO (Brazil)
②	Structure	-2	N=150		
		-4	N=150 *Bellows seal		
③	Terminal box	GE	Aluminum die-cast (ADC)	GED-CFT	Aluminum die-cast (ADC)*2 *3 (COPPER-FREE)
		GE-CFT	Aluminum die-cast (ADC)*2 *3 (COPPER-FREE)	GES	Stainless steel*2
		GED	Aluminum die-cast (ADC) (two-way)	GEDS	Stainless steel (two-way)*2
④	Length (Unit: mm)	L			
⑤	Sheath outer diameter	D,DN	ϕ3.2, ϕ3.0	F,FN	ϕ6.4, ϕ6.0
		E,EN	ϕ4.8, ϕ4.5	G	ϕ8.0
⑥	Number of element wires	2	Single	4	Double
⑦	Type	N	Ni-Cr-Si/Ni-Si	J	Fe/Cu-Ni
		K	Ni-Cr/Ni-Al	T	Cu/Cu-Ni
		E	Ni-Cr/Cu-Ni		
⑧	Measuring junction	5	(#5) Ungrounded/Separated		
		8	G (#8) Grounded		
		9	U (#9) Ungrounded		
⑨	Sheath material	C	316SS	B	NCF600eq. (Inconel 600)
		D	310S SS		
⑩	Class	01	1 (Former JIS class 0.4)	05	ASTM SP.
		02	2 (Former JIS class 0.75)	06	1 (IEC)
		03	3 (Former JIS class 1.5)	07	2 (IEC)
		04	ASTM STD.	08	3 (IEC)
⑪	Optional parts		See "Standard Parts" section		
⑫	Immersion length		N/A		

Characteristics

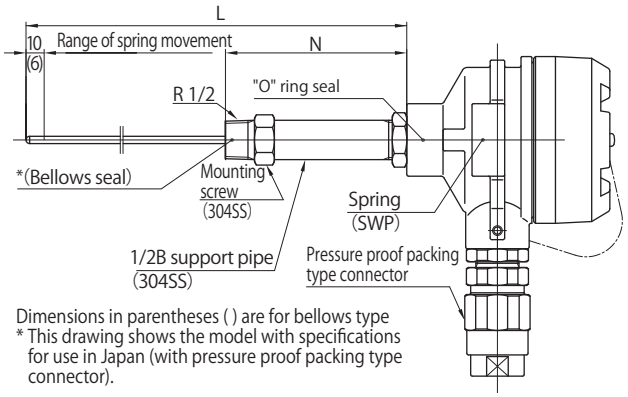
- New technical standards that conform to IEC standard (TIIS)
  Explosion proof class: Ex d II C T6 (for Japan/TIIS)
  Explosion proof class: Ex db eb II C T6 or T5 Gb
  Ex tb III C T85°C or T100°C Db (for Japan/CML)
- Suitable for use in environments with gas vapor, dust, etc. in conformance with IECEx and ATEX directives, and supplied with CE marking
  Explosion proof class: Ex db eb II C T6 & T5 Gb
  Ex tb III C T85°C & T100°C Db
- Suitable for use in environments with gas vapor, dust, etc. in conformance with NEC standard/CSA standard
  Explosion proof class: Class I, Div. 1 Gr. A, B, C & D (for US)
  Gr. B, C & D (for Canada)
  Class II/III, Div. 1 Gr. E, F & G (for US/Canada)
- Conforms to GB China explosion proof standards
  Explosion proof class: Ex de II C T5/T6 Gb Ex tD A21 IP66 T85°C/T100°C
- Conforms to South Korea safety standards
  Explosion proof class: Ex de II C T5/T6
- Conforms to EAC TR CU customs union regulations for Russia, Kazakhstan, and Belarus
  Explosion proof class: 1Ex de II C T5/T6 Gb X Ex tb III C T95°C/80°C Db X
- Conforms to India safety standards
  Explosion proof class: Ex de II C T6 Ta
- Excellent protection class: IP66 (for Japan, international, Europe, China, South Korea, Russia, Kazakhstan, Belarus, Taiwan, and India), NEMA4 & 4X (for US), and Type 4 & 4X (for Canada)
- Models with two-wire temperature transmitters (4 to 20 mA output) also supported
- Light and compact body: Made of aluminum die-cast (stainless steel also available)
- Pressure proof packing type connector equipped as standard (for Japan)
- Multi-paired type also available (for Japan, certified by IECEx, ATEX, FM, NEPSI, and PESO)

*1: The type names on the certification certificates are indicated in the table on the right.
*2: Cannot be used as product with type approval in Japan (TIIS).
*3: The standard coating color is blue.

Japan (TIIS) type approved product	T409
Japan (CML) certified product	OFP
International/ATEX (Baseefa) certified product	OFP
FM certified product	T409
NEPSI certified product	OFP
TR CU certified product	OFP
KOSHA certified product	OFP
PESO certified product	OFP
OSHA certified product	OFP
INMETRO certified product	OFP

Spring Loaded Explosion-Proof (Hydrogen Protection) Thermocouple with Support Pipe

Model code T409S



Dimensions in parentheses ( ) are for bellows type
* This drawing shows the model with specifications for use in Japan (with pressure proof packing type connector).

T409S*1- ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ / ⑪ ⑫

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		EC	ATEX (Baseefa) (Europe)	PS	PESO (India)
		FM	FM (US)	TS	OSHA (Taiwan)
		FC	FMC (Canada)	IN	INMETRO (Brazil)
②	Structure	-1	N=100	-3	N=100 *Bellows seal
		-2	N=150	-4	N=150 *Bellows seal
③	Terminal box	GE	Aluminum die-cast (ADC)	GED-CFT	Aluminum die-cast (ADC)*2 *3 (COPPER-FREE)
		GE-CFT	Aluminum die-cast (ADC)*2 *3 (COPPER-FREE)	GES	Stainless steel*2
		GED	Aluminum die-cast (ADC) (two-way)	GEDS	Stainless steel (two-way)*2
④	Length (Unit: mm)	L			
⑤	Sheath outer diameter	D,DN	ϕ3.2, ϕ3.0	F,FN	ϕ6.4, ϕ6.0
		E,EN	ϕ4.8, ϕ4.5	G	ϕ8.0
⑥	Number of element wires	2	Single	4	Double
⑦	Type	N	Ni-Cr-Si/Ni-Si	J	Fe/Cu-Ni
		K	Ni-Cr/Ni-Al	T	Cu/Cu-Ni
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⑧	Measuring junction	5	(#5) Ungrounded/Separated		
		8	G (#8) Grounded		
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⑨	Sheath material	C	316SS	B	NCF600eq. (Inconel 600)
		D	310S SS		
⑩	Class	01	1 (Former JIS class 0.4)	05	ASTM SP.
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		04	ASTM STD.	08	3(IEC)
⑪	Optional parts		See "Standard Parts" section		
⑫	Immersion length		N/A		

Characteristics

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  Explosion proof class: Ex d II C T6 (for Japan/TIIS)
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  Ex tb III C T85°C or T100°C Db (for Japan/CML)
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- Suitable for use in environments with gas vapor, dust, etc. in conformance with NEC standard/CSA standard
  Explosion proof class: Class I, Div. 1 Gr. A, B, C & D (for US)
  Gr. B, C & D (for Canada)
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  Explosion proof class: Ex de II C T5/T6
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  Explosion proof class: 1Ex de II C T5/T6 Gb X Ex tb III C T95°C/80°C Db X
- Conforms to India safety standards
  Explosion proof class: Ex de II C T6 Ta
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KOSHA certified product	OFP
PESO certified product	OFP
OSHA certified product	OFP
INMETRO certified product	OFP