

# ST3000 New Ace Electric Pressure Transmitter Remote-sealed diaphragm

Issued : Spt. 15, 2001	Page : 1-4-57
Effective : Dec. 1, 2009	UNIT : 1000YEN

Model	Pressure range/style	Service (Fill fluid)	Process connection
JTH920A	2.5 to 100kPa (250 to lowest pressure)	Regular service (Silicon oil), High temperature (Silicon oil), Oxygen service (Fluorine oil)	Flush diaphragm 3 in. (80mm)
JTH940A	35 to 3500kPa (0.35 to 35kgf/cm <sup>2</sup> )	Regular service (Silicon oil), High temperature (Silicon oil), Oxygen service (Fluorine oil)	Flush diaphragm 3 in. (80mm)
JTH960A	0.7 to 10MPa (7 to 102 kgf/cm <sup>2</sup> )	Regular service (Silicon oil), High temperature (Silicon oil), Oxygen service (Fluorine oil)	Flush diaphragm 3 in. (80mm)

Options 1, 2 : Refer to page 1-4-70

Basic model No. - I III IV V VI VII VIII - IX XX XII XIII XIV -Options 2

Basic Model No.	Measuring span	Model No.	Basic price
	2.5 to 100kPa(250 to 10.160mmH <sub>2</sub> O)	JTH920A	438
	35 to 3500kPa(0.35 to 35kgf/cm <sup>2</sup> )	JTH940A	438
	0.7 to 10MPa(7 to 102 kgf/cm <sup>2</sup> )	JTH960A	438

Selections				Additional price		
				JTH920A	JTH940A	
I	Output	4 to 20mA	1	0	0	
		Digital output (DE protocol)	3	*1, *2	0	0
		4 to 20mA (HART protocol)	5	*3, *4	5	5
II	Material of wetted part	SUS316 (Diaphragm : SUS316L)	2	0	0	
		Tantalum	4	139	139	
		Hastelloy C	H	87	87	
		SUS316L	8	25	25	
III	Fill Fluid	Regular type (Silicone oil)	1	0	0	
		For oxygen service (Fluorine oil)	2	62	62	
		For High temperature service (Silicon oil)	3	62	62	
IV	Flange rating *29	JIS 10K	A	0	0	
		JIS 20K	C	20	20	
		JIS 30K	D	30	30	
		JIS 63K	F	60	60	
		ANSI 150	G	0	0	
		ANSI 300	H	20	20	
		ANSI 600	J	30	30	
		JPI 150	N	0	0	
		JPI 300	P	20	20	
		JPI 600	Q	30	30	
V	Flange size	3 in. / 80 mm	2	0	0	
VI	Flange type	Standard	1	0	0	
VII	Flange material/bolt and nut	SUS304/Carbon steel	D	0	0	
		SUS304/SUS304	E	10	10	
		SUS304/SUS630	F	20	30	
		SUS316/Carbon steel	G	40	40	
		SUS316/SUS304	H	50	50	
		SUS316/SUS630	J	60	70	
		SUS316L/Carbon steel	K	50	50	
		SUS316L/SUS304	L	60	60	
VIII	Length of Capillary tube	2m	2	3	3	
		3m	3	7	7	
		4m	4	14	14	
		5m	5	21	21	
		6m	6	28	28	
		7m	7	35	35	
		8m	8	42	42	
		9m	Q	49	49	
		10m	A	56	56	
		Length of capillary tube with Olefin	2m	B	18	18
	3m		C	22	22	
	4m		H	29	29	
	5m		D	36	36	
	6m		J	43	43	
	7m		E	50	50	
	8m		F	57	57	
	9m		K	64	64	
	10m	G	71	71		

- Notes
- Digital output (DE protocol) should be selected with upper/lower direction of burn out feature.
  - Digital output (DE protocol) can not be combined with an external zero adjustment function.
  - HART Communication can not be combined with Special burn-out feature.**
  - The lowest output limit is -1.25%(3.8mA).
  - Dual diaphragm is not available for JIS63K, ANSI600 and JPI600 for a flange rating.
  - Flange rating should be selected based on the operative pressure range.

# ST3000 New Ace Electric Pressure Transmitter Remote-sealed diaphragm

Issued : Spt. 15, 2001	Page : 1-4-58
Effective : Dec. 1, 2009	UNIT : 1000YEN

Model	Pressure range/style	Service (Fill fluid)	Process connection
JTH940A	35 to 3500kPa (0.35 to 35kgf/cm <sup>2</sup> )	Low pressure High temperature and vacuum(Silicon oil), High temperature and high vacuum(Silicon oil)	Flush diaphragm 3 in. (80mm)
JTH960A	0.7 to 10MPa (7 to 102 kgf/cm <sup>2</sup> )	High pressure High temperature and vacuum(Silicon oil), High temperature and high vacuum(Silicon oil)	Flush diaphragm 3 in. (80mm)

Basic model No.      Selections      Options 1      Options 2      Options 1, 2 : Refer to page 1-4-70

- I II III IV V VI VII VIII      - IX X XI XII XIII XIV      -Options 2

Basic Model No.	Measuring spa	Pressure range	Model	Basic price
	35 to 3500kPa(0.35 to 35kgf/cm <sup>2</sup> )		JTH940A	438
	0.7 to 10MPa(7 to 102 kaf/cm <sup>2</sup> )		JTH960A	438

Selections				Additional price		
				JTH940A	JTH960A	
I	Output	4 to 20mA	1		0	
		Digital output (DE protocol)	2	*1, *2	0	
		4 to 20mA (HART protocol)	3	*3, *4	5	
II	Material of wetted part	SUS316L	8		0	
		Tantalum *30	4		200	
		Hastelloy C	H		125	
III	Fill Fluid	For high temperature vacuum (Silicon oil)	4		296	
		For high temperature high vacuum (Silicon oil)	7		722	
IV	Flange rating *29	JIS 10K	A		0	
		JIS 20K	C		20	
		JIS 30K	D		30	
		JIS 63K	F		60	
		ANSI 150	G		0	
		ANSI 300	H		20	
		ANSI 600	J		30	
		JPI 150	N		0	
		JPI 300	P		20	
		JPI 600	Q		30	
V	Flange size	3 in. / 80 mm	2		0	
VI	Flange type	Standard	1		0	
VII	Flange material/bolt and nut	SUS304/Carbon steel	D		0	0
		SUS304/SUS304	E		10	10
		SUS304/SUS630	F		20	30
		SUS316/Carbon steel	G		40	40
		SUS316/SUS304	H		50	50
		SUS316/SUS630	J		60	70
		SUS316L/Carbon steel	K		50	50
		SUS316L/SUS304	L		60	60
SUS316L/SUS630	M		70	80		
VIII	Length of Capillary tube	2m	2		3	
		3m	3		7	
		4m	4		14	
		5m	5		21	
		6m	6		28	
		7m	7		35	
		8m	8		42	
		9m	Q		49	
		10m	A		56	

## Notes

- Digital output (DE protocol) should be selected with upper/lower direction of burn out feature.
- Digital output (DE protocol) can not be combined with an external zero adjustment function.
- HART Communication can not be combined with Special burn-out feature.**
- The lowest output limit is -1.25%(3.8mA).
- Analog FSK Communication can not be combined with Intrinsically safe.
- Dual diaphragm is not available for JIS63K, ANSI600 and JPI600 for a flange rating.
- Flange rating should be selected based on the operative pressure range.

# ST3000 New Ace Electric Pressure Transmitter Remote-sealed diaphragm

Issued : Spt. 15, 2001	Page : 1-4-59
Effective : Dec. 1, 2009	UNIT : 1000YEN

Model	Pressure range/style	Service (Fill fluid)	Process connection
JTH920A	2.5 to 100kPa(250 to 10,160mmH <sub>2</sub> O) Lowest pressure	Chlorine service(Fluorine oil)	Flush diaphragm 3 in. (80mm)
JTH940A	35 to 3500kPa(0.35 to 35kgf/cm <sup>2</sup> ) Low pressure	Chlorine service(Fluorine oil)	Flush diaphragm 3 in. (80mm)
JTH960A	0.7 to 10MPa(7 to 102 kgf/cm <sup>2</sup> ) High pressure	Chlorine service(Fluorine oil)	Flush diaphragm 3 in. (80mm)

Options 1, 2 : Refer to page 1-4-70

Basic model No. - I III III IV V VI VII VIII - IX X XI XII XIII XIV -Options 2  
 Selections Options 1

Basic Model No.	Measuring span	Model	Basic price
	2.5 to 100kPa(250 to 10,160mmH <sub>2</sub> O)	JTH920A	438
	35 to 3500kPa(0.35 to 35kgf/cm <sup>2</sup> )	JTH940A	438
	0.7 to 10MPa(7 to 102 kgf/cm <sup>2</sup> )	JTH960A	438

Selections		Additional price			
		JTH920	JTH940		
I	Output	4 to 20mA	1	0	
		Digital output (DE protocol)	2	*1, *2	
		4 to 20mA (HART protocol)	3	*3, *4	
			4	5	
II	Material of	Tantalum	4	139	
III	Fill Fluid	For chlorine service (Fluorine oil)	5	62	
IV	Flange rating *29	JIS 10K	A	0	
		JIS 20K	C	20	
		JIS 30K	D	30	
		JIS 63K	F	60	
		ANSI 150	G	0	
		ANSI 300	H	20	
		ANSI 600	J	30	
		JPI 150	N	0	
		JPI 300	P	20	
		JPI 600	Q	30	
V	Flange size	3 in. /80 mm	2	0	
VI	Flange type	Standard	1	0	
VII	Flange material/bolt and nut	SUS304/Carbon steel	D	0	0
		SUS304/SUS304	E	10	10
		SUS304/SUS630	F	20	30
		SUS316/Carbon steel	G	40	40
		SUS316/SUS304	H	50	50
		SUS316/SUS630	J	60	70
		SUS316L/Carbon steel	K	50	50
		SUS316L/SUS304	L	60	60
		SUS316L/SUS630	M	70	80
VIII	Length of Capillary tube	2m	2	3	
		3m	3	7	
		4m	4	14	
		5m	5	21	
		6m	6	28	
		7m	7	35	
		8m	8	42	
		9m	Q	49	
		10m	A	56	
		Length of capillary tube with Olefin coating	2m	B	18
	3m		C	22	
	4m		H	29	
	5m		D	36	
	6m		J	43	
	7m		E	50	
	8m		F	57	
	9m		K	64	
	10m		G	71	

## Notes

- Digital output (DE protocol) should be selected with upper/lower direction or burn out feature.
- Digital output (DE protocol) can not be combined with an external zero adjustment function.
- HART Communication can not be combined with Special burn-out feature.**
- The lowest output limit is -1.25%(3.8mA).
- Dual diaphragm is not available for JIS63K, ANSI600 and JPI600 for a flange rating.
- Flange rating should be selected based on the operative pressure range.

# Transmitter Remote-sealed diaphragm style

Issued : Spt. 15, 2001	Page : 1-4-60
Effective : Dec. 1, 2009	UNIT : 1000YEN

Model	Pressure range/style	Service (Fill fluid)	Process connection
JTH940A	35 to 3500kPa(0.35 to 35kgf/cm <sup>2</sup> ) Low pressure	Regular service(Silicon oil), High temperature (Silicon oil), Oxygen service(Fluorine oil)	Flush diaphragm 2 in. (50mm)/1.5 in.(40mm)
JTH960A	0.7 to 10MPa(7 to 102 kgf/cm <sup>2</sup> ) High pressure	Regular service(Silicon oil), High temperature (Silicon oil), Oxygen service(Fluorine oil)	Flush diaphragm 2 in. (50mm)/1.5 in.(40mm)

Selections Options 1  
Basic model No. - I II III IV V VI VII VIII - IX X XI XII XIII XIV -Options 2

Options 1, 2 : Refer to page 1-4-70

Basic Model No.	Measuring span	Basic price
	35 to 3500kPa(0.35 to 35kgf/cm <sup>2</sup> )	JTH940A 438
	0.7 to 10MPa(7 to 102 kgf/cm <sup>2</sup> )	JTH960A 438

Selections		Additional price			
		JTH940A	JTH960A		
I	Output	4 to 20mA	1	0	
		Digital output (DE protocol)	3	*1, *2	0
		4 to 20mA (HART protocol)	5	*3, *4	5
II	Material of wetted part	SUS316 (Diaphragm : SUS316L)	2	0	
		Tantalum *30	4	150	
		SUS316L	8	87	
		Hastelloy C	H	25	
III	Fill Fluid	Regular type (Silicone oil)	1	0	
		For oxygen service (Fluorine oil)	2	62	
		For High temperature service (Silicon oil)	3	62	
IV	Flange rating *29	JIS 10K	A	0	
		JIS 20K	C	20	
		JIS 30K	D	30	
		JIS 63K	F	60	
		ANSI 150	G	0	
		ANSI 300	H	20	
		ANSI 600	J	30	
		JPI 150	N	0	
		JPI 300	P	20	
		JPI 600	Q	30	
V	Flange size	2 in. /50mm	3	0	
		1.5 in. /40mm *30	4	0	
VI	Flange type	Standard	1	0	
VII	Flange material/bolt and nut	SUS304/Carbon steel	D	0	0
		SUS304/SUS304	E	10	10
		SUS304/SUS630	F	20	30
		SUS316/Carbon steel	G	40	40
		SUS316/SUS304	H	50	50
		SUS316/SUS630	J	60	70
		SUS316L/Carbon steel	K	50	50
		SUS316L/SUS304	L	60	60
		SUS316L/SUS630	M	70	80
VIII	Length of Capillary tube	2m	2	3	
		3m	3	7	
		4m	4	14	
		5m	5	21	
		Length of capillary tube with Olefin coating			
	2m	B	18		
	3m	C	22		
	4m	H	29		
	5m	D	36		

## Notes

- 1 Digital output (DE protocol) should be selected with upper/lower direction or burn out feature.
- 2 Digital output (DE protocol) can not be combined with an external zero adjustment function.
- 3 **HART Communication can not be combined with Special burn-out feature.**
- 4 The lowest output limit is -1.25%(3.8mA).
- 11 Dual diaphragm is not available for JIS63K, ANSI600 and JPI600 for a flange rating.
- 29 Flange rating should be selected based on the operative pressure range.
- 30 If the fill fluid is for high temperature service and wetted part material is Tantalum, 1.5 in. for flange size is not available.



# ST3000 New Ace Electric Pressure Transmitter Remote-sealed diaphragm

Issued : Spt. 15, 2001	Page : 1-4-62
Effective : Dec. 1, 2009	UNIT : 1000YEN

Model	Pressure range/style	Service (Fill fluid)	Process connection
JTH940A	35 to 3500kPa(0.35 to 35kgf/cm <sup>2</sup> ) Low pressure	High temperature and vacuum(Silicon oil), High temperature and high vacuum(Silicon oil)	Flush diaphragm 2 in. (50mm)/1.5 in.(40mm)
JTH960A	0.7 to 10MPa(7 to 102 kgf/cm <sup>2</sup> ) High pressure	High temperature and vacuum(Silicon oil), High temperature and high vacuum(Silicon oil)	Flush diaphragm 2 in. (50mm)/1.5 in.(40mm)

Selections Options 1

Options 1, 2 : Refer to page 1-4-70

Basic model No. - I III III IV V VI VII VIII - IX X XI XII XIII XIV -Options 2

Basic Model No.	Measuring spa	Basic price
	35 to 3500kPa(0.35 to 35kgf/cm <sup>2</sup> )	JTH940A 438
	0.7 to 10MPa(7 to 102 kgf/cm <sup>2</sup> )	JTH960A 438

Selections		Additional price			
		JTH940A	JTH960A		
I	Output	4 to 20mA	1	0	
		Digital output (DE protocol)	3	*1, *2	0
		4 to 20mA (HART protocol)	5	*3, *4	5
II	Material of wetted part	SUS316L	8	0	
		Tantalum *15	4	200	
		Hastelloy C	H	125	
III	Fill Fluid	For high temperature vacuum (Silicon oil)	4	296	
		For high temperature high vacuum (Silicon oil)	7	722	
IV	Flange rating *29	JIS 10K	A	0	
		JIS 20K	C	20	
		JIS 30K	D	30	
		JIS 63K	F	60	
		ANSI 150	G	0	
		ANSI 300	H	20	
		ANSI 600	J	30	
		JPI 150	N	0	
		JPI 300	P	20	
		JPI 600	Q	30	
V	Flange size	2 in. /50mm	3	0	
		1.5 in. /40mm	4	0	
VI	Flange type	Standard	1	0	
VII	Flange material/bolt and nut	SUS304/Carbon steel	D	0	0
		SUS304/SUS304	E	10	10
		SUS304/SUS630	F	20	30
		SUS316/Carbon steel	G	40	40
		SUS316/SUS304	H	50	50
		SUS316/SUS630	J	60	70
		SUS316L/Carbon steel	K	50	50
		SUS316L/SUS304	L	60	60
SUS316L/SUS630	M	70	80		
VIII	Length of Capillary tube	2m	2	3	
		3m	3	7	
		4m	4	14	
		5m	5	21	

## Notes

- Digital output (DE protocol) should be selected with upper/lower direction of burn out feature.
- Digital output (DE protocol) can not be combined with an external zero adjustment function.
- HART Communication can not be combined with Special burn-out feature.**
- The lowest output limit is -1.25%(3.8mA).
- If the fill fluid is for high temperature service and wetted part material is Tantalum, the applicable temperature
- Flange rating should be selected based on the operative pressure range.

# ST3000 New Ace Electric Pressure Transmitter Remote-sealed diaphragm

Issued : Spt. 15, 2001	Page : 1-4-63
Effective : Dec. 1, 2009	UNIT : 1000YEN

Model	Pressure range/style	Service (Fill fluid)	Process connection
JTH920A	2.5 to 100kPa (250 to 10,160mmH <sub>2</sub> O) Lowest pressure	Regular service(Silicon oil), High temperature (Silicon oil), Oxygen service(Fluorine oil)	Extended flange type 4 in.(100mm)
JTH940A	35 to 3500kPa (0.35 to 35kgf/cm <sup>2</sup> ) Low pressure	Regular service(Silicon oil), High temperature (Silicon oil), Oxygen service(Fluorine oil)	Extended flange type 4 in.(100mm)
JTH960A	0.7 to 10MPa (7 to 102 kgf/cm <sup>2</sup> ) High pressure	Regular service(Silicon oil), High temperature (Silicon oil), Oxygen service(Fluorine oil)	Extended flange type 4 in.(100mm)

Selections                      Options 1

Options 1, 2 : Refer to page 1-4-70

Basic model No. - I III IIII IV V VI VII VIII                      - IX X XI XII XIII XIV                      -Options 2

Basic Model No.	Measuring span	Model	Basic price
	2.5 to 100kPa(250 to 10,160mmH <sub>2</sub> O)	JTH920A	438
	35 to 3500kPa(0.35 to 35kgf/cm <sup>2</sup> )	JTH940A	438
	0.7 to 10MPa(7 to 102 kgf/cm <sup>2</sup> )	JTH960A	438

Selections			Additional price		
			JTH920A	JTH940A	JTH960A
I	Output	4 to 20mA	1	0	0
		Digital output (DE protocol)	3	*1.*2	0
		4 to 20mA (HART protocol)	5	*3.*4	5
II	Material of wetted part	SUS316 (Diaphragm : SUS316L)	2	0	0
		SUS316L	8	75	0
III	Fill Fluid	Regular type (Silicone oil)	1	0	0
		For oxygen service (Fluorine oil)	2	62	62
		For High temperature service (Silicon oil)	3	62	62
IV	Flange rating *29	JIS 10K	A	0	0
		JIS 20K	C	20	20
		JIS 30K	D	30	30
		ANSI 150	G	0	0
		ANSI 300	H	20	20
		API 150	N	0	0
		API 300	P	20	20
V	Flange size	4 in /100mm	1	0	0
		Flange type			
VI	Length of extended part	50mm	2	62	62
		100mm	3	68	68
		150mm	4	75	75
		200mm	5	83	83
		250mm	6	93	93
		300mm	7	103	103
		VII	Flange material/bolt	SUS304/Carbon steel	D
SUS304/SUS304	E			10	10
SUS304/SUS630	F			20	30
SUS316/Carbon steel	G			40	40
SUS316/SUS304	H			50	50
SUS316/SUS630	J			60	70
SUS316L /Carbon steel	K			50	50
SUS316L /SUS304	L			60	60
SUS316L /SUS630	M			70	80
VIII	Length of Capillary	2m	2	3	7
		3m	3	7	14
		4m	4	14	21
		5m	5	21	28
		6m	6	28	35
		7m	7	35	42
		8m	8	42	46
		9m	O	46	56
		10m	A	56	18
		Length of capillary tube with Olefin	2m	B	22
	3m		C	29	36
	4m		H	36	43
	5m		D	43	50
	6m		J	50	57
	7m		E	57	64
	8m		F	64	71
	9m		K	71	
	10m		G		

### Notes

- Digital output (DE protocol) should be selected with upper/lower direction of burn out feature.
- Digital output (DE protocol) can not be combined with an external zero adjustment function.
- HART Communication can not be combined with Special burn-out feature.**
- The lowest output limit is -1.25%(3.8mA).
- Flange rating should be selected based on the operative pressure range.

# ST3000 New Ace Electric Pressure Transmitter Remote-sealed diaphragm

Issued : Spt. 15, 2001	Page : 1-4-64
Effective : Dec. 1, 2009	UNIT : 1000YEN

Model	Pressure range/style	Service (Fill fluid)	Process connection
JTH940A	35 to 3500kPa (0.35 to 35kgf/cm <sup>2</sup> )	Low pressure High temperature and vacuum(Silicon oil), High temperature and high vacuum(Silicon oil)	Extended flange type 4 in.(100mm)
JTH960A	0.7 to 10MPa (7 to 102 kgf/cm <sup>2</sup> )	High pressure High temperature and vacuum(Silicon oil), High temperature and high vacuum(Silicon oil)	Extended flange type 4 in.(100mm)

Selections                      Options 1

Options 1, 2 : Refer to page 1-4-70

Basic model No.    - I III IIII V VI VII VIII    - IX X XI XII XIII XIV    - Options 2

Basic Model No.				Basic price
Measuring span	35 to 3500kPa(0.35 to 35kgf/cm <sup>2</sup> )	JTH940A		438
	0.7 to 10MPa(7 to 102 kgf/cm <sup>2</sup> )	JTH960A		438

Selections				Additional price		
				JTH940A	JTH960A	
I	Output	4 to 20mA	1		0	
		Digital output (DE protocol)	3	*1, *2	0	
		4 to 20mA (HART protocol)	5	*3, *4	5	
II	Material of wetted part	SUS316 (Diaphragm : SUS316L)	2		0	
		SUS316L	8		75	
III	Fill Fluid	For high temperature vacuum (Silicon oil)	4		296	
		For high temperature high vacuum (Silicon oil)	7		722	
IV	Flange rating *29	JIS 10K	A		0	
		JIS 20K	C		20	
		JIS 30K	D		30	
		ANSI 150	G		0	
		ANSI 300	H		20	
		JPI 150	N		0	
		JPI 300	P		20	
V	Flange size	4 in./100A	1		0	
VI	Flange type	Length of extended part 50mm	2		62	
		Length of extended part 100mm	3		68	
		Length of extended part 150mm	4		75	
		Length of extended part 200mm	5		83	
		Length of extended part 250mm	6		93	
		Length of extended part 300mm	7		103	
VII	Flange material/bolt and nut	SUS304/Carbon steel	D		0	0
		SUS304/SUS304	E		10	10
		SUS304/SUS630	F		20	30
		SUS316/Carbon steel	G		40	40
		SUS316/SUS304	H		50	50
		SUS316/SUS630	J		60	70
		SUS316L/Carbon steel	K		50	50
		SUS316L/SUS304	L		60	60
SUS316L/SUS630	M		70	80		
VIII	Length of Capillary tube	2m	2		3	
		3m	3		7	
		4m	4		14	
		5m	5		21	
		6m	6		28	
		7m	7		35	
		8m	8		42	
		9m	Q		49	
		10m	A		56	

## Notes

- 1 Digital output (DE protocol) should be selected with upper/lower direction of burn out feature.
- 2 Digital output (DE protocol) can not be combined with an external zero adjustment function.
- 3 **HART Communication can not be combined with Special burn-out feature.**
- 4 The lowest output limit is -1.25%(3.8mA).
- 29 Flange rating should be selected based on the operative pressure range.

# ST3000 New Ace Electric Pressure Transmitter Remote-sealed diaphragm style

Issued : Spt. 15, 2001	Page : 1-4-65
Effective : Dec. 1, 2009	UNIT : 1000YEN

Model	Pressure range/style	Service (Fill fluid)	Process connection
JTH940A	35 to 3500kPa (0.35 to 35kgf/cm <sup>2</sup> ) Low pressure	Regular service(Silicon oil), High temperature (Silicon oil), Oxygen service(Fluorine oil)	Extended flange type 3 in.(80mm)/2 in.(50mm)
JTH960A	0.7 to 10MPa (7 to 102 kgf/cm <sup>2</sup> ) High pressure	Regular service(Silicon oil), High temperature (Silicon oil), Oxygen service(Fluorine oil)	Extended flange type 3 in.(80mm)/2 in.(50mm)

Selections

Options 1

Options 1, 2 : Refer to page 1-4-70

Basic model No. - I II III IV V VI VII VIII - IX X XI XII XIII XIV - Options 2

Basic Model No.	Measuring span	Basic price
JTH940A	35 to 3500kPa(0.35 to 35kgf/cm <sup>2</sup> )	438
JTH960A	0.7 to 10MPa(7 to 102 kgf/cm <sup>2</sup> )	438

Selections		Additional price		
		JTH940A	JTH960A	
I	Output	4 to 20mA	1	0
		Digital output (DE protocol)	3	*1, *2
		4 to 20mA (HART protocol)	5	*3, *4
II	Material of wetted part	SUS316 (Diaphragm : SUS316L)	2	0
		SUS316L	8	75
III	Fill Fluid	Regular type (Silicone oil)	1	0
		For oxygen service (Fluorine oil)	2	62
		For High temperature service (Silicon oil)	3	62
IV	Flange rating *29	JIS 10K	A	0
		JIS 20K	C	20
		JIS 30K	D	30
		ANSI 150	G	0
		ANSI 300	H	20
		JPI 150	N	0
		JPI 300	P	20
V	Flange size	3 in./80 mm	2	0
		2 in./50 mm	3	0
VI	Flange type	Length of extended part 50mm	2	62
		Length of extended part 100mm	3	68
		Length of extended part 150mm	4	75
		Length of extended part 200mm	5	83
		Length of extended part 250mm	6	93
		Length of extended part 300mm	7	103
VII	Flange material/bolt and nut	SUS304/Carbon steel	D	0
		SUS304/SUS304	E	10
		SUS304/SUS630	F	20
		SUS316/Carbon steel	G	40
		SUS316/SUS304	H	50
		SUS316/SUS630	J	60
		SUS316L/Carbon steel	K	50
		SUS316L/SUS304	L	60
VIII	Length of Capillary tube	2m	2	3
		3m	3	7
		4m	4	14
		5m	5	21
	Length of capillary tube with Olefin coating	2m	B	18
		3m	C	22
		4m	H	29
		5m	D	36

Notes

- 1 Digital output (DE protocol) should be selected with upper/lower direction of burn out feature.
- 2 Digital output (DE protocol) can not be combined with an external zero adjustment function.
- 3 **HART Communication can not be combined with Special burn-out feature.**
- 4 The lowest output limit is -1.25%(3.8mA).
- 29 Flange rating should be selected based on the operative pressure range.

# ST3000 New Ace Electric Pressure Transmitter Remote-sealed diaphragm

Model	Pressure range/style	Service (Fill fluid)	Process connection
JTH940A	35 to 3500kPa (0.35 to 35kgf/cm <sup>2</sup> )	Low pressure High temperature and vacuum (Silicon oil), High temperature and high vacuum (Silicon oil)	Extended flange type 3 in.(80mm)/2 in.(50mm)
JTH960A	0.7 to 10MPa (7 to 102 kgf/cm <sup>2</sup> )	High pressure High temperature and vacuum (Silicon oil), High temperature and high vacuum (Silicon oil)	Extended flange type 3 in.(80mm)/2 in.(50mm)

Issued : Spt. 15, 2001	Page : 1-4-66
Effective : Dec. 1, 2009	UNIT : 1000YEN

Selections Options 1

Options 1, 2 : Refer to page 1-4-70

Basic model No. - I II III IV V VI VII VIII - IX X XI XII XIII XIV -Options 2

Basic Model No.	Basic price
Measuring span 35 to 3500kPa(0.35 to 35kgf/cm <sup>2</sup> )	JTH940A 438
0.7 to 10MPa(7 to 102 kgf/cm <sup>2</sup> )	JTH960A 438

Selections	Additional price			
	JTH940A	JTH960A		
I Output	4 to 20mA	1	0	
	Digital output (DE protocol)	3 *1,*2	0	
	4 to 20mA (HART protocol)	5 *3,*4	5	
II Material of wetted part	SUS316 (Diaphragm : SUS316L)	2	0	
	SUS316L	8	75	
III Fill Fluid	For high temperature vacuum (Silicon oil)	4	296	
	For high temperature high vacuum (Silicon oil)	7	722	
IV Flange rating *29	JIS 10K	A	0	
	JIS 20K	C	20	
	JIS 30K	D	30	
	ANSI 150	G	0	
	ANSI 300	H	20	
	JPI 150	N	0	
	JPI 300	P	20	
V Flange size	3 in. /80 mm	2	0	
	2 in./50 mm	3	0	
VI Flange type	Length of extended part 50mm	2	62	
	Length of extended part 100mm	3	68	
	Length of extended part 150mm	4	75	
VII Flange material/bolt and nut	SUS304/Carbon steel	D	0	0
	SUS304/SUS304	E	10	10
	SUS304/SUS630	F	20	30
	SUS316/Carbon steel	G	40	40
	SUS316/SUS304	H	50	50
	SUS316/SUS630	J	60	70
	SUS316L/Carbon steel	K	50	50
	SUS316L/SUS304	L	60	60
SUS316L/SUS630	M	70	80	
VIII Length of Capillary tube	2m	2	3	
	3m	3	7	
	4m	4	14	
	5m	5	21	

## Notes

- Digital output (DE protocol) should be selected with upper/lower direction of burn out feature.
- Digital output (DE protocol) can not be combined with an external zero adjustment function.
- HART Communication can not be combined with Special burn-out feature.**
- The lowest output limit is -1.25%(3.8mA).
- Flange rating should be selected based on the operative pressure range.



# ST3000 New Ace Electric Pressure Transmitter Remote-sealed diaphragm style

Issued : Spt. 15, 2001	Page : 1-4-68
Effective : Dec. 1, 2009	UNIT : 1000YEN

Model	Pressure range/style	Service (Fill fluid)	Process connection
JTH920A	2.5 to 100kPa (250 to 10,160mmH <sub>2</sub> O)	Lowest pressure Regular service(Silicon oil), Oxygen service(Fluorine oil)	2in. Wafer diaphragm
JTH940A	35 to 3500kPa (0.35 to 35kgf/cm <sub>2</sub> )	Low pressure Regular service(Silicon oil), Oxygen service(Fluorine oil)	2in. Wafer diaphragm
JTH960A	0.7 to 10MPa (7 to 102 kgf/cm <sub>2</sub> )	High pressure Regular service(Silicon oil), Oxygen service(Fluorine oil)	2in. Wafer diaphragm
JTH980A	0.7 to 42MPa (7 to 420kgf/cm <sub>2</sub> )	Super high pressure Regular service(Silicon oil), Oxygen service(Fluorine oil)	2in. Wafer diaphragm

Selections

Options 1

Options 1, 2 : Refer to page 1-4-70

Basic model No. - I II III IV V VI VII VIII - IX X XI XII XIII XIV -Options 2

Basic Model No.	Basic price
Measuring span	
2.5 to 100kPa(250 to 10,160mmH <sub>2</sub> O)	JTH920A 438
35 to 3500kPa(0.35 to 35kgf/cm <sub>2</sub> )	JTH940A 438
0.7 to 10MPa(7 to 102 kgf/cm <sub>2</sub> )	JTH960A 438
0.7 to 42MPa (7 to 420kgf/cm <sub>2</sub> )	JTH980A 492

Selections		Additional price					
		JTH920A	JTH940A	JTH960A	JTH980A		
I	Output	4 to 20mA	1			0	
		Digital output (DE protocol)	3	*1,*2			0
		4 to 20mA (HART protocol)	5	*3, *4			5
II	Material of wetted part	SUS316 (Diaphragm : SUS316L)	2			0	
		SUS316L	8			25	
III	Fill Fluid	Regular type (Silicone oil)	1			0	
		For oxygen service (Fluorine oil)	2			62	
IV	Flange rating	No flange used	W			0	
V	Flange size	2 in. wafer	W			0	
VI	Flange type	Standard	1			0	
VII	Material of Bolt/nut	Carbon steel	N			0	
		SUS630	Q			20	
VIII	Length of Capillary	2m	2			3	
		3m	3			7	
		4m	4			14	
		5m	5			21	
		6m	6			28	
		7m	7			35	
		8m	8			42	
		9m	Q			49	
		10m	A			56	
		Length of capillary tube with Olefin	2m	B			18
3m	C				22		
4m	H				29		
5m	D				36		
6m	J				43		
7m	E				50		
8m	F				57		
9m	K				64		
10m	G				71		

Notes

- Digital output (DE protocol) should be selected with upper/lower direction of burn out feature.
- Digital output (DE protocol) can not be combined with an external zero adjustment function.
- HART Communication can not be combined with Special burn-out feature.**
- The lowest output limit is -1.25%(3.8mA).

**ST3000 New Ace Electric Pressure Transmitter**  
**Remote-sealed diaphragm style**

Issued : Spt. 15, 2001	Page : 1-4-69
Effective : Dec. 1, 2009	UNIT : 1000YEN

Model	Pressure range/style		Service (Fill fluid)	Process connection
JTH940A	35 to 3500kPa(0.35 to 35kgf/cm <sup>2</sup> )	Low pressure	High temperature and vacuum(Silicon oil), High temperature and high vacuum(Silicon oil)	2in. Wafer diaphragm
JTH960A	0.7 to 10MPa(7 to 102 kgf/cm <sup>2</sup> )	High pressure	High temperature and vacuum(Silicon oil), High temperature and high vacuum(Silicon oil)	2in. Wafer diaphragm

Selections

Options 1

Options 1, 2 : Refer to page 1-4-70

Basic model No. - I II III IV V VI VII VIII - IX X XI XII XIII XIV -Options 2

Basic Model No.			Basic price
Measuring span	35 to 3500kPa(0.35 to 35kgf/cm <sup>2</sup> )	JTH940A	438
	0.7 to 10MPa(7 to 102 kgf/cm <sup>2</sup> )	JTH960A	438

Selections				Additional price	
				JTH940A	JTH960A
I	Output	4 to 20mA	1	0	
		Digital output (DE protocol)	3	*1, *2	
		4 to 20mA (HART protocol)	5	*3, *4	
II	Material of wetted part	SUS316L	8	0	
III	Fill Fluid	For high temperature vacuum (Silicon oil)	4	296	
		For high temperature high vacuum (Silicon oil)	7	722	
IV	Flange rating	No flange used	W	0	
V	Flange size	2 in. wafer	W	0	
VI	Flange type	Standard	1	0	
VII	Material of Bolt/nut	Carbon steel	N	0	0
		SUS630	Q	20	30
VIII	Length of Capillary tube	2m	2	3	
		3m	3	7	
		4m	4	14	
		5m	5	21	
		6m	6	28	
		7m	7	35	
		8m	8	42	
		9m	Q	49	
		10m	A	56	

Notes

- Digital output (DE protocol) should be selected with upper/lower direction of burn out feature.
- Digital output (DE protocol) can not be combined with an external zero adjustment function.
- HART Communication can not be combined with Special burn-out feature.*
- The lowest output limit is -1.25%(3.8mA).

# ST3000 New Ace Electric Pressure Transmitter Remote-sealed diaphragm

Issued : Spt. 15, 2001	Page : 1-4-70
Effective : Dec. 1, 2009	UNIT : 1000YEN

Selections		Options 1		Options 2		Additional price
Basic model No.	- I II III IV V VI VII VIII	- IX X XI XII XIII XIV	-Options 2			
<b>Options 1</b>						
IX	Electrical connection / explosion-proof	G1/2, Watertight	X			0
		G1/2, TIIIS Flameproof with 1 pc. Of cable gland attach	2			14
		G1/2, TIIIS Flameproof with 2 pcs. Of cable gland attach	3			23
		G1/2, TIIIS intrinsically safe	K			5
		1/2 NPT, Watertight	A			0
X	Mounting indicating smart	None	X			0
		0 to 100 % liner scales	1			25
		Engineering unit scales	2			30
XI	Finish	Standard	X			0
		Corrosion-resistant	A			11
		Corrosion-proof	B			14
		Corrosion-resistant (Silver coating)	D			16
XII	Finish of gasket	Standard (.IISRa3 2(12.5SI))	X			0
XIII	Burnout feature *1	None	X			0
		Upper limit of output at abnormal condition	U			7
		Lower limit of output at abnormal condition	D			7
XIV	Mounting bracket	None	X			0
		Carbon steel	1			3
		Direct mounting *14 *11	P			30
		SUS304	2			10

Option 2		Additional prices
XX	No options	0
A2	External Zero adjustment *2	30
A4	Lightning arrester	18
B7	For mounting a high load resistance smart meter	0
C1	Color : Red (Munsell 5R4/13)	20
C2	Color : Yellow (Munsell 2.5Y8/16)	20
C3	Color : Blue (Munsell 7.5BG7/2)	20
C7	Process connection ; reverse	0
D1	Water free finish (included oil free finish) *16 *17	29
D2	Oil free finish *16 *17	19
D3	FEP protective film *24 *14	11
G1	One elbow (left)	2
G2	One elbow (right)	2
G3	2 elbows	4
G6	Adapter for dual diaphragm	Refer to page 1-4-71,72
J8	Special burn-out feature (3.2mA) *18	20
T1	Test report	2
T2	Material certificate *19	21
T5	Strength calculation sheet *20	15
T6	Withstand pressure and air tight test *21	40
T8	Traceability certificate	10
U2	Non-SI unit conformance	0

## Notes

- Digital output (DE protocol) should be selected with upper/lower direction of burn out feature.
- Digital output (DE protocol) can not be combined with an external zero adjustment function.
- HART Communication can not be combined with Special burn-out feature.**
- Dual diaphragm is not available for JIS63K, ANSI600 and JPI600 for a flange rating.
- This selection is not available for high temperature service/high temperature vacuum service/high temperature high vacuum service.
- When the fill fluid is for oxygen or chlorine service, there is not needed to select this.
- The carbon steel for meterbody cover material is not available for this option.
- "Lower limit of output at abnormal condition" - code D must be selected for Options 1 "V", Burnout feature.
- Available only for material of wetted part.
- When ordering, designed pressure and designed temperature are required.
- When ordering, withstand pressure and airtight test pressure are required.
- Not available for extended diaphragm type or dual diaphragm.

**ST3000 New Ace Electric Pressure Transmitter Remote-sealed diaphragm style**

Issued : Spt. 15, 2001	Page : 1-4-71
Effective : Apr. 1, 2007	UNIT : 1000YEN

**Dual diaphragm adapter (Flush flange 3 in.),**

**For regular service (fill fluid : silicon oil), oxygen service and chlorine service (fill fluid : Florine**

Selections                      Options  
 HH - I II III IV V VI VII      - VIII

Basic Model No.			Basic price
Adpater for dual diaphragm	HH		72

			Additional price
--	--	--	------------------

Selections					
I	Transmitter model number	JTH with 1 adapter	H		0
II	Material of wetted part	SUS316 (Diaphragm:SUS316L	2		0
		Tantalum	4		68
		Hasterlloy C	H		38
		SUS316L	8		3
III	Fill fluid	Regular type (Silicone oil)	1		0
		For oxygen service (Fluorine oil)	2		0
		For Chlorine service (Fluorine oil)	5		0
IV	Flange rating	JIS 10K	A		0
		JIS 20K	C		0
		JIS 30K	D		0
		ANSI 150	G		0
		ANSI 300	H		0
		JPI 150	N		0
		JPI 300	P		0
V	Flange size	3 in. /80 mm	2		0
VI	Flange type	Standard (Flush diaphragm)	1		0
VII	Finish of gasket face	Standard	X		0

Options					
VIII		No options	XX		0
	*13	Water free and oil free treatment	D1		0
	*13	Oil free treatment	D2		0
	*13	Material certificate	T2		0
	*13	Pressure test	T7		0

Notes

13 When this option is selected, the same option for transmitter must be selected.

**ST3000 New Ace Electric Pressure  
Transmitter Remote-sealed diaphragm style**

Issued : Spt. 15, 2001	Page : 1-4-72
Effective : Apr. 1, 2007	UNIT : 1000YEN

**Dual diaphragm adapter (Flush flange 2 in.),**

**For regular service (fill fluid : silicon oil), oxygen service and chlorine service(fill fluid : Florine c**

Selections                      Options

HH - I II III IV V VI VII      - VIII

Basic Model No.

Basic Model No.				Basic price
Adpater for dual diaphragm			HH	72
				Additional price
Selections				
I	Transmitter model number	JTE with 1 adapter	H	0
II	Material of wetted part	SUS316 (Diaphragm:SUS316L)	2	0
		Tantalum	4	88
		SUS316L	8	3
III	Fill fluid	Regular type (Silicone oil)	1	0
		For oxygen service (Fluorine oil)	2	0
		For Chlorine service (Fluorine oil)	5	0
IV	Flange rating	JIS 10K	A	0
		JIS 20K	C	0
		JIS 30K	D	0
		ANSI 150	G	0
		ANSI 300	H	0
		JPI 150	N	0
		JPI 300	P	0
V	Flange size	2 in. /50 mm	3	0
VI	Flange type	Standard (Flush diaphragm)	1	0
VII	Finish of gasket face	Standard	X	0
Options				
VIII	No options		XX	0
	*13	Water free and oil free treatment	D1	0
	*13	Oil free treatment	D2	0
	*13	Material certificate	T2	0
	*13	Pressure test	T7	0

Notes

13 When this option is selected, the same option for transmitter must be selected.