

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

Issued : Spt. 15, 2001	Page : 1-4-57
Effective : Apr. 1, 2007	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/cm2)	Low pressure	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/cm2)	High pressure	Regular service(Silicon oil), High temperature (Silicon oil), Oxygen service(Fluorine oil)	Flush diaphragm 3 in. (80mm)

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 10,160mmH2O)	JTH920A	438	
		35 to 3500kPa(0.35 to 35kgf/cm2)	JTH940A	438	
		0.7 to 10MPa(7 to 102 kgf/cm2)	JTH960A	438	

Selections										Additional price		
										JTH920A	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		
										0		
II	Material of wetted part	SUS316 (Diaphragm : SUS316L)	2							0		
		Tantalum	4							139		
		Hastelloy C	H							87		
		SUS316L	8							25		
III	Fill Fluid	Regular type (Silicone oil)	1							0		
		For oxygen service (Fluorine oil)	2							62		
		*11 For High temperature service (Silicon oil)	3							62		
										0		
IV	Flange rating *29	JIS 10K		A							0	
		JIS 20K		C							20	
		JIS 30K		D							30	
		*11 JIS 63K		F							60	
		ANSI 150		G							0	
		ANSI 300		H							20	
		*11 ANSI 600		J							30	
		JPI 150		N							0	
		JPI 300		P							20	
		*11 JPI 600		Q							30	
											0	
											0	
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 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 TIIS intrinsically safe and Special burn-out feature.
  - The lowest outoput 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 style

Issued : Spt. 15, 2001	Page : 1-4-58
Effective : Apr. 1, 2007	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)

Selections		Options 1		Options 2		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

										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	
		*11 JIS 63K		F						60	
		ANSI 150		G						0	
		ANSI 300		H						20	
		*11 ANSI 600		J						30	
		JPI 150		N						0	
		JPI 300		P						20	
		*11 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 TIIS intrinsically safe and Special burn-out feature.
- The lowest outoput 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 style

Issued : Spt. 15, 2001	Page : 1-4-59
Effective : Apr. 1, 2007	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)
JTH940A	35 to 3500kPa(0.35 to 35kgf/cm <sub>2</sub> )	Low pressure	Chlorine service(Fluorine oil)
JTH960A	0.7 to 10MPa(7 to 102 kgf/cm <sub>2</sub> )	High pressure	Chlorine service(Fluorine oil)

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	2.5 to 100kPa(250 to 10,160mmH <sub>2</sub> O)	JTH920A	Basic price
		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

				Additional price		
Selections				JTH920A	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	
			4			
II	Material of wetted	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 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 TIIS intrinsically safe and Special burn-out feature.
- The lowest outoput 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 style

Issued : Spt. 15, 2001	Page : 1-4-60
Effective : Apr. 1, 2007	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)
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)

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	Pressure range/style	Model	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

				Additional price	
				JTH940A	JTH960A
I	Output	4 to 20mA	1	0	0
		Digital output (DE protocol)	3	0	0
		4 to 20mA (HART protocol)	5	5	5
II	Material of wetted part	SUS316 (Diaphragm : SUS316L)	2	0	0
		Tantalum *30	4	150	150
		SUS316L	8	87	87
		Hastelloy C	H	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	2 in. /50mm	3	0	0
		1.5 in. /40mm *30	4	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
		SUS316L/SUS630	M	70	80
VIII	Length of Capillary tube	2m	2	3	3
		3m	3	7	7
		4m	4	14	14
		5m	5	21	21
	Length of capillary tube with Olefin coating	2m	B	18	18
		3m	C	22	22
		4m	H	29	29
		5m	D	36	36

## 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 TIIS intrinsically safe and 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.
- 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 style

Issued : Spt. 15, 2001	Page : 1-4-61
Effective : Apr. 1, 2007	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	Chlorine 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	Chlorine service(Fluorine 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 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	Tantalum	4							150	
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	
		*11 JIS 63K		F						60	
		ANSI 150		G						0	
		ANSI 300		H						20	
		*11 ANSI 600		J						30	
		JPI 150		N						0	
		JPI 300		P						20	
		*11 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	
	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 TIIS intrinsically safe and Special burn-out feature.
- 4 The lowest outoput 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.



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

Issued : Spt. 15, 2001	Page : 1-4-62
Effective : Apr. 1, 2007	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)

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

Basic model No.      Selections      Options 1  
                                  - 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

							Additional price	
Selections							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

- 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 TIIS intrinsically safe and Special burn-out feature.
- 4 The lowest outoput limit is -1.25%(3.8mA).
- 15 If the fill fluid is for high temperature service and wetted part material is Tantalum, the applicable temperature range of wetted part is from -10 to 180 deg.C
- 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 : 1-4-63
Effective : Apr. 1, 2007	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)

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 Model No.				Basic price
	Measuring span	2.5 to 100kPa(250 to 10,160mmH2O)	JTH920A	438
		35 to 3500kPa(0.35 to 35kgf/cm2)	JTH940A	438
		0.7 to 10MPa(7 to 102 kgf/cm2)	JTH960A	438

## Selections

Selections					Additional price		
					JTH920A	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	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	4 in./100mm		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	
		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

- 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 TIIS intrinsically safe and 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 : 1-4-64
Effective : Apr. 1, 2007	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 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

							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
VIII	Length of Capillary tube	SUS316L/SUS630		M			70	80
		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 TIIS intrinsically safe and Special burn-out feature.
- The lowest outoput 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 : 1-4-65
Effective : Apr. 1, 2007	UNIT : 1000YEN

Model	Pressure range/style		Service (Fill fluid)	Process connection
JTH940A	35 to 3500kPa (0.35 to 35kgf/cm2)	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/cm2)	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.			Basic price
	Measuring span	35 to 3500kPa(0.35 to 35kgf/cm2)	JTH940A 438
		0.7 to 10MPa(7 to 102 kgf/cm2)	JTH960A 438

Selections				Additional price	
				JTH940A	JTH960A
I	Output	4 to 20mA	1	0	0
		Digital output (DE protocol)	3	0	0
		4 to 20mA (HART protocol)	5	5	5
II	Material of wetted part	SUS316 (Diaphragm : SUS316L)	2	0	0
		SUS316L	8	75	75
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
		JPI 150	N	0	0
		JPI 300	P	20	20
V	Flange size	3 in./80 mm	2	0	0
		2 in./ 50 mm	3	0	0
VI	Flange type	Length of extended part 50mm	2	62	62
		Length of extended part 100mm	3	68	68
		Length of extended part 150mm	4	75	75
		Length of extended part 200mm	5	83	83
		Length of extended part 250mm	6	93	93
		Length of extended part 300mm	7	103	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	3
		3m	3	7	7
		4m	4	14	14
		5m	5	21	21
	Length of capillary tube with Olefin coating	2m	B	18	18
		3m	C	22	22
		4m	H	29	29
		5m	D	36	36

## 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 TIIS intrinsically safe and Special burn-out feature.
- The lowest outoput 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 : 1-4-66
Effective : Apr. 1, 2007	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 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)

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
	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
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 TIIS intrinsically safe and 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 : 1-4-67
Effective : Apr. 1, 2007	UNIT : 1000YEN

Model	Pressure range/style		Service (Fill fluid)	Process connection
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)	Button diaphragm type 1 1/2 in. external screw
JTH980A	0.7 to 42MPa (7 to 420kgf/cm <sup>2</sup> )	Super high pressure	Regular service(Silicon oil), High temperature (Silicon oil), Oxygen service(Fluorine oil)	Button diaphragm type 1 1/2 in. external screw

## 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	0.7 to 10MPa(7 to 102 kgf/cm <sup>2</sup> )	JTH960A	438

## Selections

							Additional price
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	G 11/2 Button diaphragm 11/2in. External screw		V			0
VI	Flange type	Standard		1			0
VII	Flange material/bolt and nut	SUS304/Carbon steel		D			0
		SUS304/SUS304 *31		E			10
		SUS304/SUS630		F			30
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

- 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 TIIS intrinsically safe and Special burn-out feature.
- The lowest outoput limit is -1.25%(3.8mA).
- Available only for JTH960A.



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

Issued : Spt. 15, 2001	Page : 1-4-68
Effective : Apr. 1, 2007	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 <sup>2</sup> )	Low pressure	Regular service(Silicon oil), Oxygen service(Fluorine oil)	2in. Wafer diaphragm
JTH960A	0.7 to 10MPa (7 to 102 kgf/cm <sup>2</sup> )	High pressure	Regular service(Silicon oil), Oxygen service(Fluorine oil)	2in. Wafer diaphragm
JTH980A	0.7 to 42MPa (7 to 420kgf/cm <sup>2</sup> )	Super high pressure	Regular service(Silicon oil), Oxygen service(Fluorine oil)	2in. Wafer diaphragm

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

Basic model No.	Selections	Options 1	Options 2
	- 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 <sup>2</sup> )	JTH940A	438
		0.7 to 10MPa(7 to 102 kgf/cm <sup>2</sup> )	JTH960A	438
		0.7 to 42MPa (7 to 420kgf/cm <sup>2</sup> )	JTH980A	492

										Additional price			
Selections										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		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
	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 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 TIIS intrinsically safe and 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 : Apr. 1, 2007	UNIT : 1000YEN

Model	Pressure range/style		Service (Fill fluid)	Process connection
JTH940A	35 to 3500kPa(0.35 to 35kgf/cm2)	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/cm2)	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/cm2)	JTH940A	438
		0.7 to 10MPa(7 to 102 kgf/cm2)	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	
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
- 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 TIIS intrinsically safe and Special burn-out feature.
  - 4 The lowest outoput limit is -1.25%(3.8mA).



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

Issued : Spt. 15, 2001	Page : 1-4-70
Effective : Apr. 1, 2007	UNIT : 1000YEN

## Selections

## Options 1

Basic model No.	- I II III IV V VI VII VIII	- IX X XI XII XIII XIV	-Options 2	Additional price
Options1				
IX	Electrical connection / explosion-proof	G1/2, Watertight	X	0
		G1/2, TIIS Flameproof with 1 pc. Of cable gland attached.	2	14
		G1/2, TIIS Flameproof with 2 pcs. Of cable gland attached.	3	23
		G1/2, intrinsically safe *3	6	5
		1/2 NPT, Watertight	A	0
X	Building indicating smart meter	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 face	Standard (JISRa3.2(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 arrestor	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 2-205
	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 TIIS intrinsically safe and 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 chroline 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

Dual diaphragm adapter (Flush flange 3 in.),  
For regular service (fill fluid : silicon oil), oxygen service and chlorine service (fill fluid : Florine oil)

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

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

Dual diaphragm adapter (Flush flange 2 in.),

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

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

Selections  
HH -I II III IV V VI VII

Options  
- VIII

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