

ST3000 ACE

Electric Standard Differential pressure type

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

Model	Pressure range/style		Service (Fill fluid)	Process connection
JTD910A	0.1 to 2kPa (10 to 200mmH2O)	Lowest differential pressure	Regular service(Silicon oil)	Rc1/2, 1/2NPT, Rc1/4, NPT1/4

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

Options 2 : Refer to page 1-4-8

Basic Model No.				Basic price
	Measuring span	0.1 to 2.0kPa (10 to 200mmH2O)	JTD910A	350

Selections							Additional price
I	Output	4 to 20mA	1				0
		Digital output (DE protocol)	3	*1,*2			0
		4 to 20mA (HART Communication)	5	*3*4			5
II	Material	Meterbody cover	Vent/Drain plugs	Wetted parts of			
		SCS14A	SUS316	SUS316	E		0
III	Fill Fluid	Regular type (Silicone oil)		1			0
IV	Process connection	Rc 1/2, top connection			A		0
		Rc 1/2, bottom connection			B		0
		1/2 NPT internal thread, top connection			F		0
		1/2 NPT internal thread, bottom connection			G		0
		Rc 1/4, top connection			L		0
		Rc 1/4, bottom connection			M		0
		1/4 NPT internal thread, top connection			R		0
		1/4 NPT internal thread, bottom connection			S		0
V	Bolt/nut	SUS304		2			0

Options 1							
VI	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
VII	Built-in indicating smart meter	None	X				0
		0 to 100 % linear scales *1	1				25
		Engineering unit scales *1	2				30
VIII	Finish	Standard	X				0
		Corrosion-resistant	A				11
		Corrosion-proof	B				14
		Corrosion-resistant (Silver coating)	D				16
IX	Burnout feature	None *2	X				0
		Upper limit of output at abnormal condition	U				7
		Lower limit of output at abnormal condition	D				7
X	Mounting Bracket	None	X				0
		Carbon steel	1				3
		SUS304	2				10

Notes

- 1 Range should be informed to IBQ/Factory at Purchase order. 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).

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Model	Pressure range / Style	Service (Fill fluid)	Process connection
JTD920A	0.75 to 100 kPa (75 to 10160 mmH ₂ O)	Medium differential pressure	Regular service (Silicone oil)
JTD930A	35 to 700 kPa (0.35 to 7 kgf/cm ²)	High differential pressure	Regular service (Silicone oil)
JTD960A	0.25 to 14 Mpa (2.5 to 140 kgf/cm ²)	Super high differential pressure	Regular service (Silicone oil)

Selections Options 1

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

Options 2 : Refer to page 1-4-8

Basic Model No.	Measuring span	Basic price
	0.75 to 100kPa (75 to 10160mmH ₂ O)	310
	35 to 700kPa (0.35 to 7kgf/cm ²)	321
	0.25 to 14MPa (2.5 to 140kgf/cm ²)	382

Selections	Additional price
I Output	4 to 20mA
	Digital output (DE protocol)
	4 to 20mA (HART Communication)

II Material	Meterbody cover	Vent / Drain plugs	Wetted parts of center body		
	SCS14A *32	SUS316	SUS316	E	0
	SCS14A *32	SUS316	Hastelloy C	F	87
	SCS14A *32	SUS316	Tantalum	H	190
	SCS14A *32	SUS316	SUS316L	K	70
	PVC	PVC	Tantalum	P	205

III Fill Fluid	Regular type (Silicone oil)	1		
IV Process connection	Rc 1/2, top connection	A		0
	Rc 1/2, bottom connection	B		0
	1/2 NPT internal thread, top connection	F		0
	1/2 NPT internal thread, bottom connection	G		0
	Rc 1/4, top connection	L		0
	Rc 1/4, bottom connection	M		0
	1/4 NPT internal thread, top connection	R		0
	1/4 NPT internal thread, bottom connection	S		0
	Δ Probe bottom	w		10

V Bolt/nut	Carbon steel	1		0
	SUS304	2		11
	SUS630	3		35

Options 1				
VI 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 JIS Intrinsically Safe	6		5
	1/2 NPT, Watertight	A		0

VII Built-in indicating smart meter	None	X		0
	0 to 100 % linear scales *1	1		25
	Engineering unit scales *1	2		30

VIII Finish	Standard	X		0
	Corrosion-resistant	A		11
	Corrosion-proof	B		14
	Corrosion-resistant (Silver coating)	D		16

IX Burnout feature	None *2	X		0
	Upper limit of output at abnormal condition	U		7
	Lower limit of output at abnormal condition	D		7

X Mounting Bracket	None	X		0
	Carbon steel	1		3
	SUS304	2		10

Note 1 Range should be informed to IBQ/Factory at Purchase order. 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 JTD960A is not available for meterbody cover material PVC.

5 The pitch is 82 mm. To change the pitch to 54 mm (standard pitch), should be selected adapter flange ("A1" of Option 2).

6 When meterbody cover material is PVC, option 2 should be selected "V" as bolt/nut SUS304.

7 The lowest output limit is -1.25%(3.8mA).

10 When meterbody cover material is PVC, Manifold valve (MVGZ) and/or Integral orifice (KEE) can not be combined with.

32 SCS14A (equivalent to SUS316) or SUSF316

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Model	Pressure range/style		Service (Fill fluid)	Process connection
JTD921A	0.75 to 100kPa (75 to 10160mmH2O)	High static pressure for medium differential pressure	Regular service(Silicon oil)	Rc1/2, 1/2NPT, Rc1/4, NPT1/4
JTD931A	35 to 700kPa (0.35 to 7kgf/cm2)	High static pressure for high differential pressure	Regular service(Silicon oil)	Rc1/2, 1/2NPT, Rc1/4, NPT1/4
JTD961A	0.25 to 14MPa (2.5 to 140kgf/cm2)	High static pressure for super high differential pressure	Regular service(Silicon oil)	Rc1/2, 1/2NPT, Rc1/4, NPT1/4

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

Options 2 : Refer to page 1-4-8

Basic Model No.				Basic price
	Measuring span	0.75 to 100kPa(75 to 10160mmH2O)	JTD921A	380
		35 to 700kPa(0.35 to 7kgf/cm2)	JTD931A	380
		0.25 to 14MPa(2.5 to 140kgf/cm2)	JTD961A	452

Selections											
I	Output	4 to 20mA		1					0		
		Digital output (DE protocol)		3	*1,*2				0		
		4 to 20mA (HART Communication)		5	*3*4				5		
II	Material	Meterbody cover	Vent/Drain plugs	Wetted parts of center							
		SCS14A	SUS316	SUS316	E					0	
III	Fill Fluid	Regular type (Silicone oil)			1					0	
IV	Process connection	Rc 1/2, top connection			*40	A					0
		Rc 1/2, bottom connection			*40	B					0
		1/2 NPT internal thread, top connection			*40	F					0
		1/2 NPT internal thread, bottom connection			*40	G					0
		Rc 1/4, top connection				L					0
		Rc 1/4, bottom connection				M					0
		1/4 NPT internal thread, top connection				R					0
		1/4 NPT internal thread, bottom connection				S					0
V	Bolt/nut	Carbon steel				1				0	
		SUS304				2				20	
		SUS630				3				100	
Options 1						-					
VI	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	
VII	Built-in indicating smart meter	None				X				0	
		0 to 100 % linear scales *1				1				25	
		Engineering unit scales *1				2				30	
VIII	Finish	Standard				X				0	
		Corrosion-resistant				A				11	
		Corrosion-proof				B				14	
		Corrosion-resistant (Silver coating)				D				16	
IX	Burnout feature	None *2				X				0	
		Upper limit of output at abnormal condition				U				7	
		Lower limit of output at abnormal condition				D				7	
X	Mounting Bracket	None				X				0	
		Carbon steel				1				3	
		SUS304				2				10	

Notes

- 1 Range should be informed to IBQ/Factory at Purchase order. Digital output (DE protocol) should be selected with upper/lower direction of burn out feature.
- 2 HART Communication can not be combined with TIIS intrinsically safe and Special burn-out feature.
- 3 Analog FSK Communication can not be combined with JIS intrinsically safe.
- 4 The lowest outoput limit is -1.25%(3.8mA).
- 40 Not available with NZ16 High Pressure Manifold Valve.

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Model	Pressure range/style		Service (Fill fluid)	Process connection
JTD910A	0.1 to 2kPa (10 to 200mmH2O)	Lowest differential pressure	Oxygen service (Fluorine oil)	Rc1/2, 1/2NPT, Rc1/4, NPT1/4

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

Options 2 : Refer to page 1-4-8

Basic Model No.				Basic price
	Measuring span	0.1 to 2.0kPa(10 to 200mmH2O)	JTD910A	350
				Additional price
Selections				
I	Output	4 to 20mA	1	0
		Digital output (DE protocol)	3	0
		4 to 20mA (HART Communication)	5	5
II	Material	Meterbody cover	Vent/Drain plugs	Wetted parts of
		SCS14A	SUS316	SUS316
III	Fill Fluid	For oxygen service (Fluorine oil)	2	36
IV	Process connection	Rc 1/2, top connection	A	0
		Rc 1/2, bottom connection	B	0
		1/2 NPT internal thread, top connection	F	0
		1/2 NPT internal thread, bottom connection	G	0
		Rc 1/4, top connection	L	0
		Rc 1/4, bottom connection	M	0
		1/4 NPT internal thread, top connection	R	0
		1/4 NPT internal thread, bottom connection	S	0
		Δ Probe bottom connection	w	10
V	Bolt/nut	SUS304	2	0

Options 1				-
VI	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
VII	Built-in indicating smart meter	None	X	0
		0 to 100 % linear scales *1	1	25
		Engineering unit scales *1	2	30
VIII	Finish	Standard	X	0
		Corrosion-resistant	A	11
		Corrosion-proof	B	14
		Corrosion-resistant (Silver coating)	D	16
IX	Burnout feature	None *2	X	0
		Upper limit of output at abnormal condition	U	7
		Lower limit of output at abnormal condition	D	7
X	Mounting Bracket	None	X	0
		Carbon steel	1	3
		SUS304	2	10

Notes

- 1 Range should be informed to IBQ/Factory at Purchase order. Digital output (DE protocol) should be selected with upper/lower direction of burn out feature.
- 2 HART Communication can not be combined with TIIS intrinsically safe and Special burn-out feature.
- 3 Analog FSK Communication can not be combined with TIIS intrinsically safe.
- 4 The lowest outoput limit is -1.25%(3.8mA).

Electric Standard Differential pressure type

1 Range should be informed to IBQ/Factory at Purchase order. 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 JTD960A is not available for meterbody cover material PVC.
5 The pitch is 82 mm. To change the pitch to 54 mm (standard pitch), should be selected adapter flange ("A1" of Option 2).
6 When meterbody cover material is PVC, option 2 should be selected "V" as bolt/nut SUS304.
7 The lowest outpout limit is -1.25%(3.8mA).
8 This can be selected for the meterbody cover if the process fluid contains hydro-carbon or H2S which used for Refinery/Petrochemical. When you selected this, contact to
9 When meterbody cover material is PVC, Manifold valve (MVGZ) and/or Integral orifice (KEE) can not be combined with.
32 SCS14A (equivalent to SUS316) or SUSF316

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Model	Pressure range/style		Service (Fill fluid)	Process connection
JTD921A	0.75 to 100kPa (75 to 10160mmH2O)	High static pressure for medium differential pressure	Oxygen service(Fluorine oil)	Rc1/2, 1/2NPT, Rc1/4, NPT1/4
JTD931A	35 to 700kPa (0.35 to 7kgf/cm2)	High static pressure for high differential pressure	Oxygen service(Fluorine oil)	Rc1/2, 1/2NPT, Rc1/4, NPT1/4
JTD961A	0.25 to 14MPa (2.5 to 140kgf/cm2)	High static pressure for super high differential pressure	Oxygen service(Fluorine oil)	Rc1/2, 1/2NPT, Rc1/4, NPT1/4

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

Options 2 : Refer to page 1-4-8

Basic Model No.				Basic price
	Measuring span	0.75 to 100kPa (75 to 10160mmH2O)	JTD921A	380
		35 to 700kPa (0.35 to 7kgf/cm2)	JTD931A	380
		0.25 to 14MPa (2.5 to 140kgf/cm2)	JTD961A	452

Selections										Additional price	
I	Output	4 to 20mA		1						0	
		Digital output (DE protocol)		3	*1,*2					0	
		4 to 20mA (HART Communication)		5	*3*4					5	
II	Material	Meterbody cover	Vent/Drain plugs	Wetted parts of center body							
		SCS14A *32	SUS316	SUS316	E					0	
III	Fill Fluid	For oxygen service (Fluorine oil)				2					36
IV	Process connection	Rc 1/2, top connection			*40	A					0
		Rc 1/2, bottom connection			*40	B					0
		1/2 NPT internal thread, top connection			*40	F					0
		1/2 NPT internal thread, bottom connection			*40	G					0
		Rc 1/4, top connection				L					0
		Rc 1/4, bottom connection				M					0
		1/4 NPT internal thread, top connection				R					0
		1/4 NPT internal thread, bottom connection				S					0
V	Bolt/nut	Carbon steel			1					0	
		SUS304			2					20	
		SUS630			3					100	
Options 1										-	
VI	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
VII	Built-in indicating smart meter	None				X					0
		0 to 100 % linear scales *1				1					25
		Engineering unit scales *1				2					30
VIII	Finish	Standard				X					0
		Corrosion-resistant				A					11
		Corrosion-proof				B					14
		Corrosion-resistant (Silver coating)				D					16
IX	Burnout feature	None *2				X					0
		Upper limit of output at abnormal condition				U					7
		Lower limit of output at abnormal condition				D					7
X	Mounting Bracket	None				X					0
		Carbon steel				1					3
		SUS304				2					10

Notes

- 1 Range should be informed to IBQ/Factory at Purchase order. 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).
- 32 SCS14A (equivalent to SUS316) or SUSF316
- 40 Not available with NZ16 High Pressure Manifold Valve.

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Model	Pressure range/style	Service (Fill fluid)	Process connection
JTD920A	0.75 to 100kPa (75 to 10160mmH2O)	Medium differential pressure	Chlorine service(Fluorine oil)
JTD930A	35 to 700kPa (0.35 to 7kgf/cm2)	High differential pressure	Chlorine service(Fluorine oil)
JTD960A	0.25 to 14MPa (2.5 to 140kgf/cm2)	Super high differential pressure	Chlorine service(Fluorine oil)

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

Options 2 : Refer to page 1-4-8

Basic Model No.	Measuring span	Basic price
	0.75 to 100kPa (75 to 10160mmH2O) JTD920A	310
	35 to 700kPa (0.35 to 7kgf/cm2) JTD930A	321
	0.25 to 14MPa (2.5 to 140kgf/cm2) JTD960A	382

Selections	Additional price
I Output	4 to 20mA 1 0
	Digital output (DE protocol) 3 *1,*2 0
	4 to 20mA (HART Communication) 5 *3*7 5
II Material	Meterbody cover Vent/Drain plugs Wetted parts of center body
	*5 SCS14A *32 SUS316 Tantalum H 190
	*4, *5, *6, *10 PVC *3 PVC Tantalum P 205
III Fill Fluid	For Chlorine service (Fluorine oil) 5 36
IV Process connection	Rc 1/2, top connection A 0
	Rc 1/2, bottom connection B 0
	1/2 NPT internal thread, top connection F 0
	1/2 NPT internal thread, bottom connection G 0
	Rc 1/4, top connection L 0
	Rc 1/4, bottom connection M 0
	1/4 NPT internal thread, top connection R 0
	1/4 NPT internal thread, bottom connection S 0
	D Probe bottom connection w 10
V Bolt/nut	Carbon steel 1 0
	SUS304 2 11
	SUS630 3 35
Options 1	-
VI 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
VII Built-in indicating smart meter	None X 0
	0 to 100 % linear scales *1 1 25
	Engineering unit scales *1 2 30
VIII Finish	Standard X 0
	Corrosion-resistant A 11
	Corrosion-proof B 14
	Corrosion-resistant (Silver coating) D 16
IX Burnout feature	None *2 X 0
	Upper limit of output at abnormal condition U 7
	Lower limit of output at abnormal condition D 7
X Mounting Bracket	None X 0
	Carbon steel 1 3
	SUS304 2 10

Notes

- 1 Range should be informed to IBQ/Factory at Purchase order. 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 JTD960A is not available for meterbody cover material PVC
- 5 The pitch is 82 mm. To change the pitch to 54 mm (standard pitch), should be selected adapter flange ("A1" of Option 2).
- 6 When meterbody cover material is PVC, option 2 should be selected "V" as bolt/nut SUS304.
- 7 The lowest outoutput limit is -1.25%(3.8mA).
- 10 When meterbody cover material is PVC, Manifold valve (MVGZ) and/or Integral orifice (KEE) can not be combined with.
- 32 SCS14A (equivalent to SUS316) or SUSF316

ST3000 New Ace**Electric Standard Differential pressure type**

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			Additional prices
Options 2	XX	No options	0
	A1	Adapter flange for corrosion-resistant application (SUS316L or Tantalum for the wetted parts of centerbody)	15
	A2	External Zero adjustment *2	30
	A4	Lightning arrestor	18
	A5	Long vent/drain plugs	10
	B7	For mounting a high load resistance smart meter *23	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)	29
	E6	Water free finish (included oil free finish) High Grade	35
	D2	Oil free finish *16, *17	19
	G1	One elbow (left)	2
	G2	One elbow (right)	2
	G3	2 elbows	4
	J8	Special burn-out feature (3.2mA) *18	20
	T1	Test report	2
	T2	Material certificate *19	21
	T5	Strength calculation sheet *33	15
	T6	Withstand pressure and Airtight test *34	40
	T8	Traceability certificate	10
	U2	Non-SI unit conformance	0

Note

- 2 Digital output (DE protocol) can not be combined with an External zero adjustment function.
- 16 When the fill fluid is for oxygen or chroline service, there is no need to select.
- 18 "Lower limit of output at abnormal condition" - code D must be selected for Options 1 "V", Burnout feature.
- 19 Available only for material of wetted part.
- 20 When order-entry, designed pressure and designed temperature are required.
- 21 When ordering, resistant pressure and gas-tightness test pressure are required.
- 22 Steam block is not available for model JTD921/931/961.
- 23 When this transmitter connected with NW35, NWS300, this option must be selected.
- 33 Specify design pressure and design temperature.
- 34 Specify required test pressures (up to the max. working pressure).