

Messrs.

KAZANORGSINTEZ SC

Project

KBP, 3AKA3A / KAZAN RUSSIA


Title

DP Transmitter (Level) & Pressure Transmitter

(Catalogues, Specification / For Quotation)

COPY

**Azbil Europe NV
Yamatake Corporation *azbil*
International Business Division**

TOKYO		Total	XX	Sheets with Cover		
H/W ENG	REV.	DESCRIPTION	DATE	DRAWN	CHECKED	APPROVED
	0	First issue.	03/25/'10	~		
	1	Review ASME B16.5 Tongue & Groove Flange	04/20/'10	~		
SYONAN						
H/W ENG						
PROC.						
H/W INSP						
	<input type="checkbox"/>	PRELIMINARY	NOTE:	S ID No.	JOB No.	JOB ORDER No.
	<input type="checkbox"/>	FOR APPROVAL		DRAWING No.		REV.
	<input type="checkbox"/>	FINAL		AEU-10-060		
INST.						
TOTAL						

Project: KBP / 3AKA3A
Proposal # : AEU-10-060 Rev1
Apr. 20, 2010

Item	Index / Description	Specification
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< DP Transmitter & Pressure Transmitter >

- 1 TAG. No.: B-LT-2404, B-LT-2405, B-LT2505, B-LT-2506
Model No.: GTX35R-BCDA1FAEK08-BA1ABB6-Q1R1T2T499
- 2 TAG. No.: B-LT-4003, B-LT-4004
Model No.: GTX35R-BCDA1FEEK10-BA1ABB6-M5Q1R1T2T499
- 3 TAG. No.: B-LT-4103, B-LT-4104
Model No.: GTX35R-BCDA1FEEK10-BA1ABB6-M5Q1R1T2T499
- 4 TAG. No.: B-LT-4202
Model No.: GTX35R-BCDA2FFEF05-BA1ABB6-Q1R1T2T499
- 5 TAG. No.: B-LT-6501
Model No.: GTX35R-BAAA1FEEK05-BA1ABB6-Q1R1T2T499
- 6 TAG. No.: B-LT-7073, B-LT-7074
Model No.: GTX35RZ-BAAA2GAEF10-BA1ABB6-Q1R1T2T499
- 7 TAG. No.: B-PT-2501B, B-PT-2507
Model No.: GTX60U-BCDA1FAEK05-BA1ABB6-Q1R1T2T499
- 8 TAG. No.: B-PT-4209
Model No.: GTX60U-BCDA2FFEF05-BA1ABB6-Q1R1T2T499
- 9 TAG. No.: B-PT-7071
Model No.: GTX35UZ-BAAA2GAEF05-BA1ABB6-Q1R1T2T499

M/s. KAZANORGSIN TEZ SC
 Subject: DP transmitter (Level)

DEVIATION / EXCEPTION / CLARIFICATION LIST

Rev. 1 Apr. 20, 2010

TAG. No	Paragraph Reference (REQUIREMENTS)	Clarificatio (OUR OFFERS)	REMARKS
Rev.1 B-LT-2404	<34> Process Connection: DN 80, ANSI150#ST <38> Material: 316 SS <41> Capillary Material: 316 SS Armored	3", ANSI150# t & g (t) 316L SS Capillary tube: 316 SS, Armored: 304 SS	For Vacuum Service
Rev.1 B-LT-2405	<34> Process Connection: DN 80, ANSI150#ST <38> Material: 316 SS <41> Capillary Material: 316 SS Armored	3", ANSI150# t & g (t) 316L SS Capillary tube: 316 SS, Armored: 304 SS	For Vacuum Service
Rev.1 B-LT-2505	<34> Process Connection: DN 80, ANSI150#ST <38> Material: 316 SS <41> Capillary Material: 316 SS Armored	3", ANSI150# t & g (t) 316L SS Capillary tube: 316 SS, Armored: 304 SS	For Vacuum Service
Rev.1 B-LT-2506	<34> Process Connection: DN 80, ANSI150#ST <38> Material: 316 SS <41> Capillary Material: 316 SS Armored	3", ANSI150# t & g (t) 316L SS Capillary tube: 316 SS, Armored: 304 SS	For Vacuum Service
Rev.1 B-LT-4003	<34> Process Connection: DN 80, ANSI150#ST <41> Capillary Material: 316 SS Armored Note: Nozzle I.D: 82.8 mm Note: Diaphragm thickness: 100 micrometer	3", ANSI150# t & g (t) Capillary tube: 316 SS, Armored: 304 SS Extend O.D 69±1 mm 100 micrometer	
Rev.1 B-LT-4004	<34> Process Connection: DN 80, ANSI150#ST <41> Capillary Material: 316 SS Armored Note: Nozzle I.D: 82.8 mm Note: Diaphragm thickness: 100 micrometer	3", ANSI150# t & g (t) Capillary tube: 316 SS, Armored: 304 SS Extend O.D 69±1 mm 100 micrometer	
Rev.1 B-LT-4103	<34> Process Connection: DN 80, ANSI150#ST <41> Capillary Material: 316 SS Armored Note: Nozzle I.D: 82.8 mm Note: Diaphragm thickness: 100 micrometer	3", ANSI150# t & g (t) Capillary tube: 316 SS, Armored: 304 SS Extend O.D 69±1 mm 100 micrometer	
Rev.1 B-LT-4104	<34> Process Connection: DN 80, ANSI150#ST <41> Capillary Material: 316 SS Armored Note: Nozzle I.D: 82.8 mm Note: Diaphragm thickness: 100 micrometer	3", ANSI150# t & g (t) Capillary tube: 316 SS, Armored: 304 SS Extend O.D 69±1 mm 100 micrometer	
Rev.1 B-LT-4202	<34> Process Connection: DN 80, ANSI300#ST <41> Capillary Material: 316 SS Armored Note: Nozzle I.D: 77.9 mm	3", ANSI300# T & G (T) Capillary tube: 316 SS, Armored: 304 SS Extend O.D 69±1 mm	
Rev.1 B-LT-6501	<34> Process Connection: DN 80, ANSI150#ST <41> Capillary Material: 316 SS Armored <42> Capillary Length: 4.5 m Note: Nozzle I.D: 82.8 mm	3", ANSI150# t & g (t) Capillary tube: 316 SS, Armored: 304 SS 5 m Extend O.D 69±1 mm	
Rev.1 B-LT-7073	<34> Process Connection: DN 80(100), ANSI300#LT <41> Capillary Material: 316 SS Armored Note: Jacket type flange	4"Flane, 3"Base ANSI300# T & G (T) Capillary tube: 316 SS, Armored: 304 SS 4" Flange with Steam Trace	
Rev.1 B-LT-7074	<34> Process Connection: DN 80(100), ANSI300#LT <41> Capillary Material: 316 SS Armored Note: Jacket type flange	4"Flane, 3"Base ANSI300# T & G (T) Capillary tube: 316 SS, Armored: 304 SS 4" Flange with Steam Trace	

M/s. KAZANORGSIN TEZ SC
 Subject: DP transmitter (Level)

DEVIATION / EXCEPTION / CLARIFICATION LIST

Rev. 1 Apr. 20, 2010

TAG. No	Paragraph Reference (REQUIREMENTS)	Clarificatio (OUR OFFERS)	REMARKS
Rev.1 B-PT-2501B	<34> Process Connection: DN 80, ANSI150#ST <38> Material: 316 SS <41> Capillary Material: 316 SS Armored	3", ANSI150# t & g (t) 316L SS Capillary tube: 316 SS, Armored: 304 SS	For Vacuum Service
Rev.1 B-PT-2507	<34> Process Connection: DN 80, ANSI150#ST <38> Material: 316 SS <41> Capillary Material: 316 SS Armored	3", ANSI150# t & g (t) 316L SS Capillary tube: 316 SS, Armored: 304 SS	For Vacuum Service
Rev.1 B-PT-4209	<34> Process Connection: DN 80, ANSI300#LT <41> Capillary Material: 316 SS Armored Note: Nozzle I.D: 77.9 mm	3", ANSI300# T & G (T) Capillary tube: 316 SS, Armored: 304 SS	
Rev.1 B-PT-7071	<34> Process Connection: DN 80(100), ANSI300#LT <41> Capillary Material: 316 SS Armored Note: Jacket type flange	4"Flane, 3"Base ANSI300# T & G (T) Capillary tube: 316 SS, Armored: 304 SS 4" Flange with Steam Trace	

Rev.1 Clarification t & g (t) : Small Tongue Face, ASME B16.5 (2003)
 T & G (T) : Large Tongue Face, ASME B16.5 (2003)

- *We have quoted T&G (t&g) of ASME B16.5 - 2003 according to the customer's requirement.
- *Customer's drawing (DWG NoA30715.33B) is a standard in fiscal year 1988.
- *T & G (t &g) uses the standard in fiscal year 1988 usually.
- *ASME B16.5: Tongue 6.4mm (1988), Tongue 7.0mm (2003)
- *Please advise on the fiscal year of the standard finally used by the customer.

1. Thread of the cable inlet (electrical connection) : M20 x 1.5

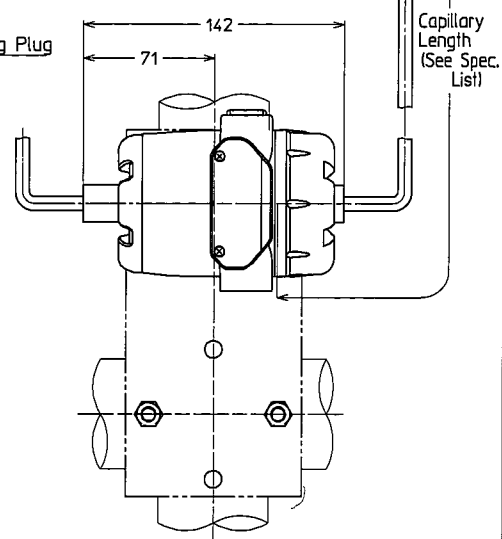
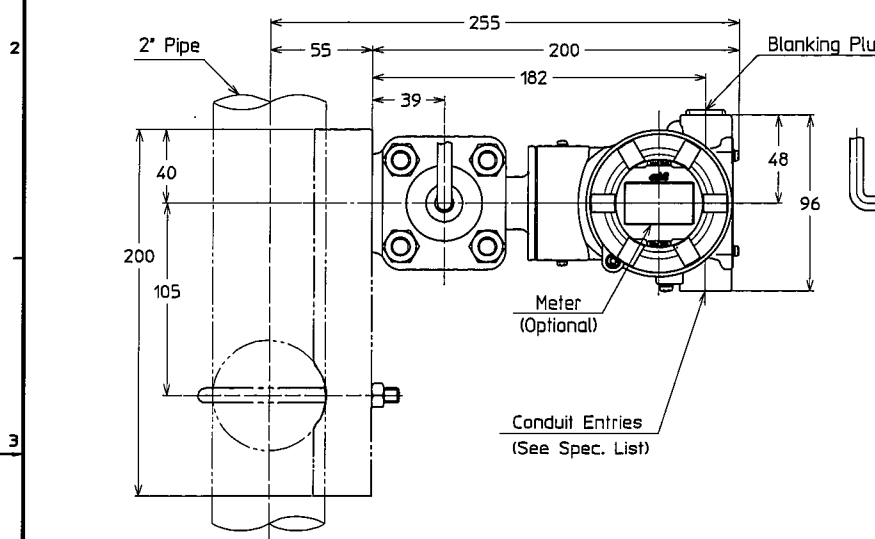
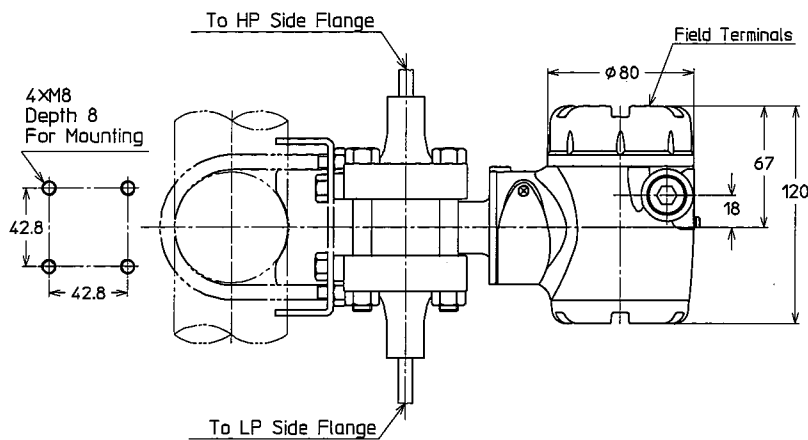
2. HART- communicator (375 Field communicator / Emerson)
 Please refer to the attached " 375 Field Communicator and AT9000 Download DD Files",
 which shows how to use the upgrade your communicator.

ITEM No.	MODEL / NAME / SPECIFICATION
1	<p>MODEL GTX35R-BCDA1FAEK08-BA1ABB6-Q1R1T2T499</p> <p>NAME AT9000 Advanced Transmitter/Remote-seal differential pressure type</p> <p>GTX35R Measuring span 2.5 to 100 kPa (250 to 10,160 mmH2O)</p> <p>-B output 4 to 20mA (HART Communication)</p> <p>C Fill fluid for High temperature Vacuum Service(Silicone OIL)</p> <p>D Wetted parts Material 316L SST</p> <p>A1 Flange Rating ANSI150</p> <p>F Flange Size 3in./80mm</p> <p>A Flange type Flush type</p> <p>E Flange Material/Bolt and Nut Material 316 SST/304 SST</p> <p>K Gasket face finish t & g (t)</p> <p>08 Capillary Length 8m</p> <p>-B Electrical Connection M20, Watertight</p> <p>A1 Explosion proof ATEX Explosionproof</p> <p>A Indicator with Indicator</p> <p>B Paint Corrosion-proof</p> <p>B Failure Alarm Lower Limit of output at abnormal Condition</p> <p>6 Mounting Bracket 304 SST (Flat form)</p> <p>-Q1 option Safety Transmitter</p> <p>R1 option Custom Calibration</p> <p>T2 option MILL Certificate</p> <p>T4 option Traceability Certificate (included Test Report)</p> <p>99 Special 3" ANSI 150# Small Tongue Face (ASME B16.5, - 2003)</p>
	<p>(1) TAG. No.: B-LT-2404 Calibration Range: 0 to 14.69 kPa Indicator Scale: 0 to 100 %</p> <p>(2) TAG. No.: B-LT-2405 Calibration Range: 0 to 14.69 kPa Indicator Scale: 0 to 100 %</p> <p>(3) TAG. No.: B-LT-2505 Calibration Range: 0 to 27.78 kPa Indicator Scale: 0 to 100 %</p> <p>(4) TAG. No.: B-LT-2506 Calibration Range: 0 to 27.78 kPa Indicator Scale: 0 to 100 %</p>

DIMENSIONAL DRAWING

UNIT : mm

See attached page for process connection dimensions



STANDARD SPECIFICATIONS

- Power Supply : DC17.9~42V
- Load Resistance : 250 Ω at DC17.9V
: 1345 Ω at DC42V
- Output Signal : DC4~20mA
- Electronic Housing Structure : Water-proof and Dust-proof structure
: JIS C0920 Immersion-Proof Structure
: JIS F8001 Class 2 Water-tight Construction
: NEMA 3 and 4X Equiv. IEC IP67 Equiv.
- Finish : See Spec. List
- Installation : Process connection flanged to vessel.
: Transmitter body fixed to horizontal or vertical 2" pipe.
- Mass (Weight) : Approx. 18kg (ANSI 150-3B, Capillary length 5m)

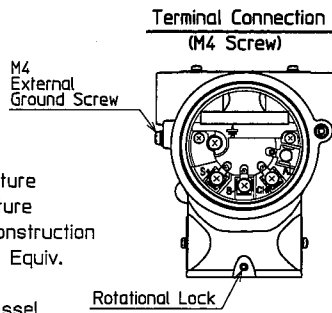


TABLE 1 Terminal Connection

SYMBOL	DETAILS
S+	POWER SUPPLY AND OUTPUT SIGNAL+
S-	POWER SUPPLY AND OUTPUT SIGNAL- / CHECK METER-
CHK/AL	CHECK METER+
⊥	GROUND

TABLE 2 Terminal Connection (Option "Q7" Alarm Output)

SYMBOL	DETAILS
S+	POWER SUPPLY AND OUTPUT SIGNAL+
S-	POWER SUPPLY AND OUTPUT SIGNAL-
CHK/AL	ALARM+
⊥	GROUND/ALARM-

- Process Connection Dimensional Drawings
- Flush Flange ED-526508-2
- Extended Flange ED-526508-3
- Small Flange ED-526508-4
- Flush Flange (Diaphragm t=0.1) ED-526508-5
- Extended Flange (Diaphragm t=0.1) ED-526508-6
- Combination of Flush and Extended Flange ED-526508-7

- Note 1) Capillary tube shall be fixed to protect it from damage due to vibration.
- 2) Choose gaskets that do not touch diaphragm after installation.

AT9000 ELECTRONIC DIFFERENTIAL PRESSURE TRANSMITTER MODEL NO. GTX (REMOTE SEALED TYPE) GTX 35R/40R

Yamatake Corporation

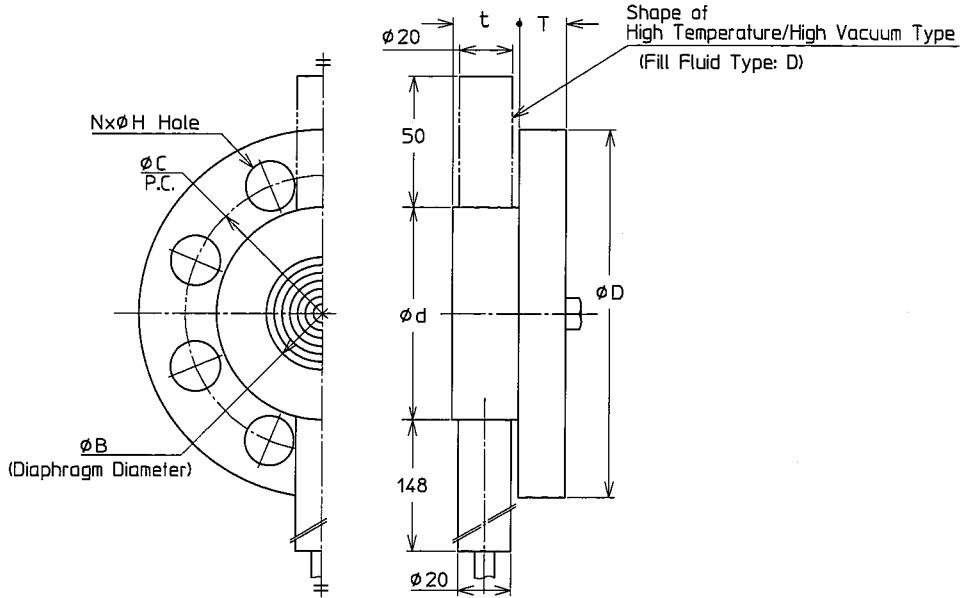
DATE JUL. 1. '08
REF.

DRAWING NO. ED-526508-1

0	08-7-1	K. Y. / I. I.	3	.	.
1	08-10-6	K. Y. / I. I.	4	.	.
2	09-8-7	N. C. / I. I.	5	.	.
REV					

DIMENSIONAL DRAWING

UNIT : mm



Flange Dimensions

Selection Code		Description		φD	T	φC	N	φH	φd			
Flange Size	Flange Rating	Flange Size	Flange Rating									
D	A1	1-1/2" (40A)	ANSI 150	127	18	98.6	4	16	81			
	A2		ANSI 300	155	25	114.3	4	22				
	A3		ANSI 600	155	32	114.3	4	22				
	P1		JPI 150	127	18	98.6	4	16				
	P2		JPI 300	155	25	114.3	4	22				
	P3		JPI 600	155	32	114.3	4	22				
	J1		JIS 10K	140	18	105	4	19				
	J3		JIS 20K	140	18	105	4	19				
	J4		JIS 30K	160	25	120	4	23				
	J6		JIS 63K	175	32	130	4	25				
	E		A1	2" (50A)	ANSI 150	152	19.5	120.6		4	19	99
			A2		ANSI 300	165	22.5	127		8	19	
A3		ANSI 600	165		25.5	127	8	19				
P1		JPI 150	152		19.5	120.6	4	19				
P2		JPI 300	165		22.5	127	8	19				
P3		JPI 600	165		25.5	127	8	19				
J1		JIS 10K	155		16	120	4	19				
J3		JIS 20K	155		18	120	8	19				
J4		JIS 30K	165		22	130	8	19				
J6		JIS 63K	185		34	145	8	23				
F		A1	3" (80A)		ANSI 150	190	24	152.4	4	19	129.5	
		A2			ANSI 300	210	28.5	168.1	8	22		
	A3	ANSI 600		210	32	168.1	8	22				
	P1	JPI 150		190	24	152.4	4	19				
	P2	JPI 300		210	28.5	168.1	8	22				
	P3	JPI 600		210	32	168.1	8	22				
	J1	JIS 10K		185	18	150	8	19				
	J3	JIS 20K		200	22	160	8	23				
	J4	JIS 30K		210	28	170	8	23				
	J6	JIS 63K		230	40	185	8	25				

Diaphragm Diameter

Selection Code		Description		φB	t
Flange Size	Wetted Parts	Flange Size	Wetted Parts		
D	A,C,D	1 1/2" (40A)	SUS316 Tantalum SUS316L	43	25
	B		ASTM B575 (Hastelloy C-276 Equivalent)		26.7
E	A,C,D	2" (50A)	SUS316 Tantalum SUS316L	62	25
	B		ASTM B575 (Hastelloy C-276 Equivalent)		43
F	A,B,C,D	3" (80A)	SUS316 Tantalum SUS316L	95	25

Flange Standard : ASME/ANSI B16.5 (1988)
 JPI-7S-15-93
 JIS B2220 (2004)

Note 1) Choose gaskets that do not touch diaphragm after installation.

AT9000 PROCESS CONNECTION OF REMOTE SEALED TYPE
 GTX (FLUSH FLANGE)

MODEL NO.
 FLUSH FLANGE

Yamatake Corporation

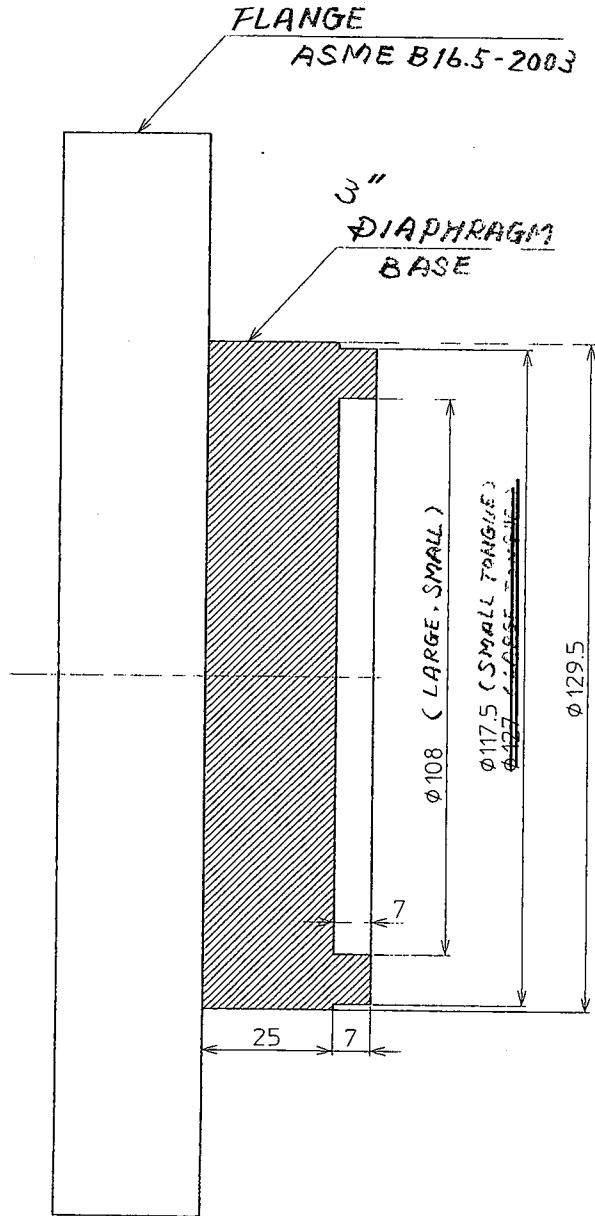
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DRAWING NO.
 ED-526508-2

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1	08-7-3	K.Y / II.	4	.	.
2	09-8-7	NC / II.	5	.	.
6					
7					
8					

FLUSH FLANGE

1A



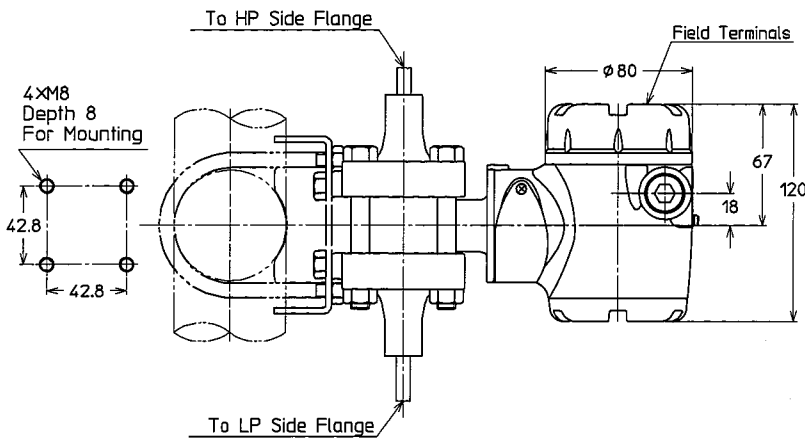
REFERENCE

ITEM No.	MODEL / NAME / SPECIFICATION	
2	MODEL	GTX35R-BCDA1FEEK10-BA1ABB6-M5Q1R1T2T499
	NAME	AT9000 Advanced Transmitter/Remote-seal differential pressure type
	GTX35R	Measuring span 2.5 to 100 kPa (250 to 10,160 mmH2O)
	-B	output 4 to 20mA (HART Communication)
	C	Fill fluid for High temperature Vacuum Service(Silicone OIL)
	D	Wetted parts Material 316L SST
	A1	Flange Rating ANSI150
	F	Flange Size 3in./80mm
	E	Flange type Extended Length 200 mm
	E	Flange Material/Bolt and Nut Material 316 SST/304 SST
	K	Gasket face finish t & g (t)
	10	Capillary Length 10m
	-B	Electrical Connection M20, Watertight
	A1	Explosion proof ATEX Explosionproof
	A	Indicator with Indicator
	B	Paint Corrosion-proof
	B	Failure Alarm Lower Limit of output at abnormal Condition
	6	Mounting Bracket 304 SST (Flat form)
	-M5	option 0.1 mm thickness diaphragm
	Q1	option Safety Transmitter
	R1	option Custom Calibration
	T2	option MILL Certificate
	T4	option Traceability Certificate (included Test Report)
	99	Special 3" ANSI 150# Small Tongue Face (ASME B16.5 - 2003)
		Semi-option Capillary Length 10m, Diaphragm 0.1mm
	(1)	TAG. No.: B-LT-4003 Calibration Range: 0 to 30.19 kPa Indicator Scale: 0 to 100 %
	(2)	TAG. No.: B-LT-4004 Calibration Range: 0 to 30.19 kPa Indicator Scale: 0 to 100 %

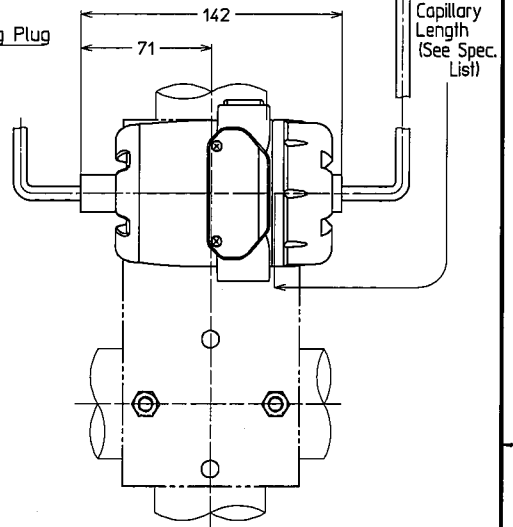
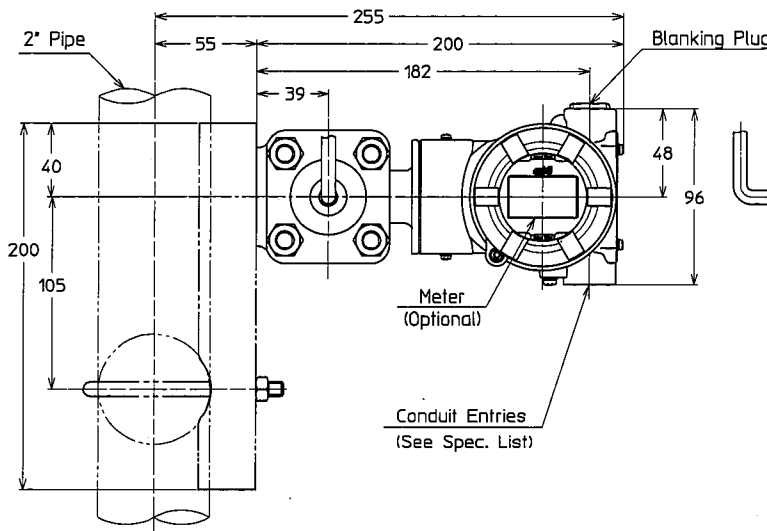
DIMENSIONAL DRAWING

UNIT : mm

See attached page for process connection dimensions



1
2
3



STANDARD SPECIFICATIONS

- Power Supply : DC17.9~42V
- Load Resistance : 250 Ω at DC17.9V
: 1345 Ω at DC42V
- Output Signal : DC4~20mA
- Electronic Housing Structure : Water-proof and Dust-proof structure
: JIS C0920 Immersion-Proof Structure
: JIS F8001 Class 2 Water-tight Construction
: NEMA 3 and 4X Equiv. IEC IP67 Equiv.
- Finish : See Spec. List
- Installation : Process connection flanged to vessel.
: Transmitter body fixed to horizontal or vertical 2" pipe.
- Mass (Weight) : Approx. 18kg (ANSI 150-3B, Capillary length 5m)

Terminal Connection (M4 Screw)

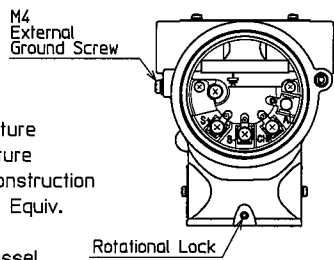


TABLE 1 Terminal Connection

SYMBOL	DETAILS
S+	POWER SUPPLY AND OUTPUT SIGNAL+
S-	POWER SUPPLY AND OUTPUT SIGNAL- / CHECK METER-
CHK/AL	CHECK METER+
⏏	GROUND

TABLE 2 Terminal Connection (Option *Q7* Alarm Output)

SYMBOL	DETAILS
S+	POWER SUPPLY AND OUTPUT SIGNAL+
S-	POWER SUPPLY AND OUTPUT SIGNAL-
CHK/AL	ALARM+
⏏	GROUND/ALARM-

- ▣ Process Connection Dimensional Drawings
- ➡ Flush Flange ED-526508-2
- Extended Flange ED-526508-3
- Small Flange ED-526508-4
- Flush Flange (Diaphragm t=0.1) ED-526508-5
- Extended Flange (Diaphragm t=0.1) ED-526508-6
- Combination of Flush and Extended Flange ED-526508-7

Special: Diaphragm t=0.1

- Note 1) Capillary tube shall be fixed to protect it from damage due to vibration.
- 2) Choose gaskets that do not touch diaphragm after installation.

REFERENCE

AT9000 ELECTRONIC DIFFERENTIAL PRESSURE TRANSMITTER
GTX (REMOTE SEALED TYPE)

MODEL NO.
GTX 35R/40R

Yamatake Corporation

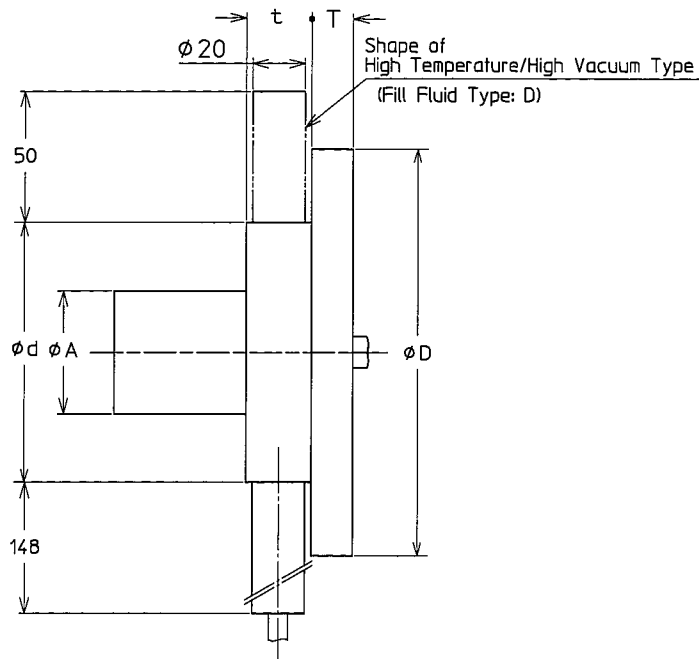
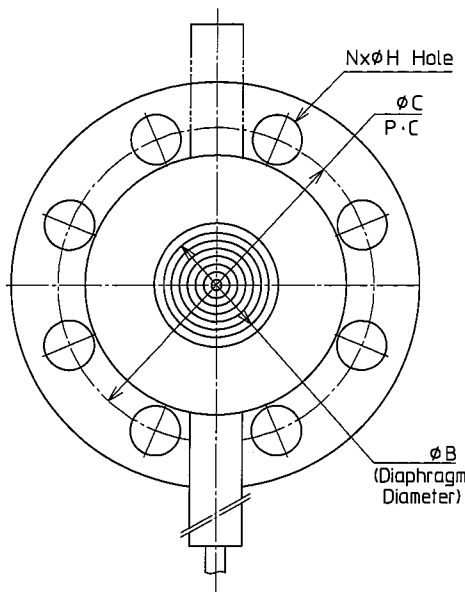
DATE JUL. 1. '08
REF.

DRAWING NO.
ED-526508-1

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2	09	8	7	N.	C.	/	I.	I.	5
REV									

A B C D E

DIMENSIONAL DRAWING UNIT : mm



Flange Dimensions

Selection Code		Description																
Flange Size	Flange Rating	Flange Size	Flange Rating	∅D	T	∅C	N	∅H	∅d	t	∅A	∅B						
E	A1	2* (50A)	ANSI 150	152	19.5	120.6	4	19	99	25	47 ^{±1}	43						
	A2		ANSI 300	165	22.5	127	8	19										
	A3		ANSI 600	165	25.5	127	8	19										
	P1		JPI 150	152	19.5	120.6	4	19										
	P2		JPI 300	165	22.5	127	8	19										
	P3		JPI 600	165	25.5	127	8	19										
	J1		JIS 10K	155	16	120	4	19										
	J3		JIS 20K	155	18	120	8	19										
	J4		JIS 30K	165	22	130	8	19										
	J6		JIS 63K	185	34	145	8	23										
	F		A1	3* (80A)	ANSI 150	190	24	152.4					4	19	129.5	25	69 ^{±1}	62
			A2		ANSI 300	210	28.5	168.1					8	22				
A3		ANSI 600	210		32	168.1	8	22										
P1		JPI 150	190		24	152.4	4	19										
P2		JPI 300	210		28.5	168.1	8	22										
P3		JPI 600	210		32	168.1	8	22										
J1		JIS 10K	185		18	150	8	19										
J3		JIS 20K	200		22	160	8	23										
J4		JIS 30K	210		28	170	8	23										
J6		JIS 63K	230		40	185	8	25										
G		A1	4* (100A)		ANSI 150	229	24	190.5	8	19	157	23	95 ^{±1}	90.4				
		A2			ANSI 300	254	32	200.2	8	22								
	A3	ANSI 600		273	38.5	215.9	8	26										
	P1	JPI 150		229	24	190.5	8	19										
	P2	JPI 300		254	32	200.2	8	22										
	P3	JPI 600		273	38.5	215.9	8	26										
	J1	JIS 10K		210	18	175	8	19										
	J3	JIS 20K		225	24	185	8	23										
	J4	JIS 30K		240	32	195	8	25										

Extended Length L

Code	L
B	50
C	100
D	150
E	200
F	250
G	300

Flange Standard : ASME/ANSI B16.5 (1988)
 JPI-7S-15-93
 JIS B2220 (2004)

REFERENCE

Special: Diaphragm t=0.1

Note 1) Choose gaskets that do not touch diaphragm after installation.

AT9000 PROCESS CONNECTION OF REMOTE SEALED TYPE
 GTX (EXTENDED FLANGE)

MODEL NO.
 EXTENDED FLANGE

Yamatake Corporation

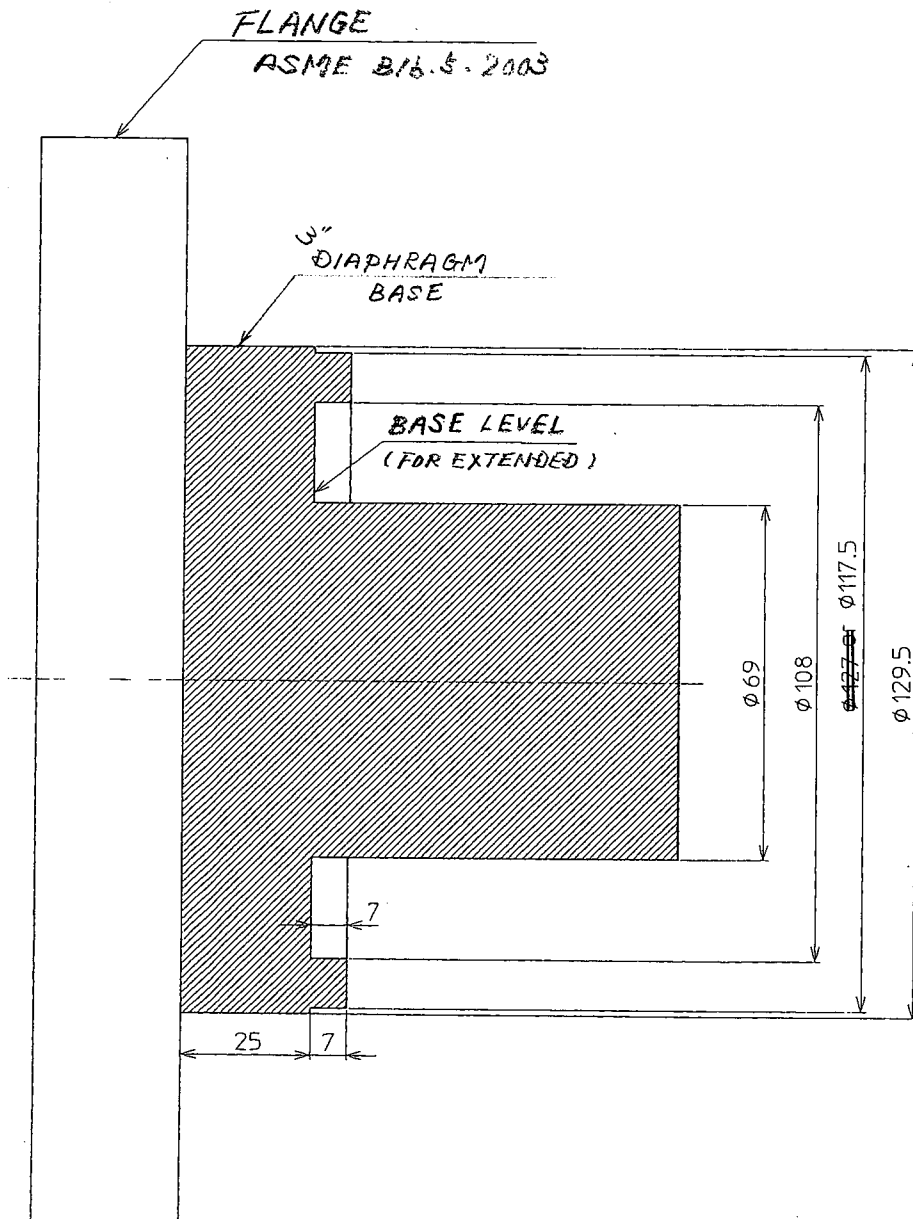
DATE JUL. 1. 08
 REF.

DRAWING NO.
 ED-526508-3

0	08-7-1	K.Y./I.I.	3	.	.
1	09-8-7	N.C./I.I.	4	.	.
2			5	.	.
REV					

EXTENDED FLANGE

2A



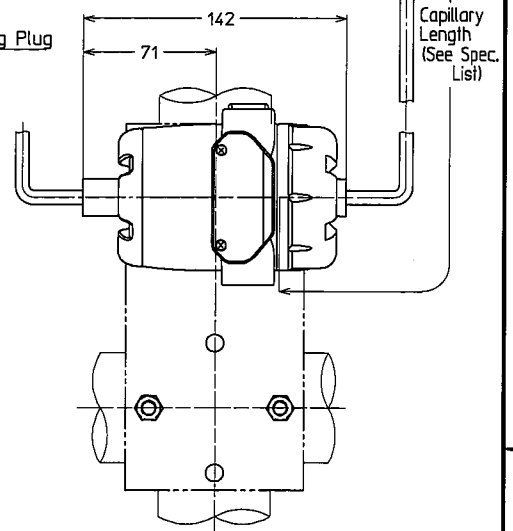
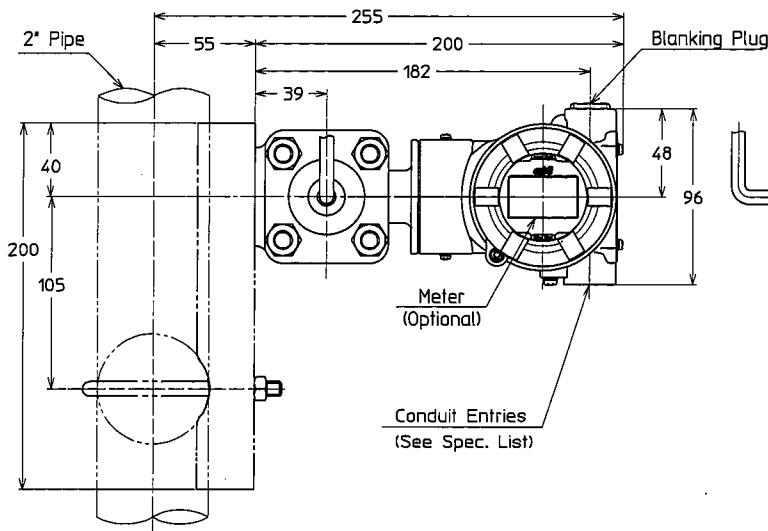
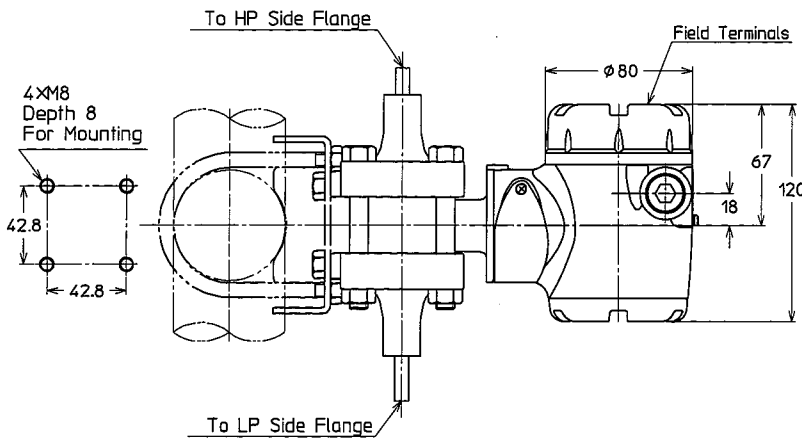
REFERENCE

ITEM No.	MODEL / NAME / SPECIFICATION
3	<p>MODEL GTX35R-BCDA1FFEK10-BA1ABB6-M5Q1R1T2T499</p> <p>NAME AT9000 Advanced Transmitter/Remote-seal differential pressure type</p> <p>GTX35R Measuring span 2.5 to 100 kPa (250 to 10,160 mmH2O)</p> <p>-B output 4 to 20mA (HART Communication)</p> <p>C Fill fluid for High temperature Vacuum Service(Silicone OIL)</p> <p>D Wetted parts Material 316L SST</p> <p>A1 Flange Rating ANSI150</p> <p>F Flange Size 3in./80mm</p> <p>F Flange type Extended Length 250 mm</p> <p>E Flange Material/Bolt and Nut Material 316 SST/304 SST</p> <p>K Gasket face finish t & g (t)</p> <p>10 Capillary Length 10m</p> <p>-B Electrical Connection M20, Watertight</p> <p>A1 Explosion proof ATEX Explosionproof</p> <p>A Indicator with Indicator</p> <p>B Paint Corrosion-proof</p> <p>B Failure Alarm Lower Limit of output at abnormal Condition</p> <p>6 Mounting Bracket 304 SST (Flat form)</p> <p>-M5 option 0.1 mm thickness diaphragm</p> <p>Q1 option Safety Transmitter</p> <p>R1 option Custom Calibration</p> <p>T2 option MILL Certificate</p> <p>T4 option Traceability Certificate (included Test Report)</p> <p>99 Special 3" ANSI 150# Small Tongue Face (ASME B16.5 - 2003)</p> <p>Semi-option Capillary Length 10m, Diaphragm 0.1mm</p>
	<p>(1) TAG. No.: B-LT-4103 Calibration Range: 0 to 30.34 kPa Indicator Scale: 0 to 100 %</p> <p>(2) TAG. No.: B-LT-4104 Calibration Range: 0 to 30.34 kPa Indicator Scale: 0 to 100 %</p>

DIMENSIONAL DRAWING

UNIT : mm

See attached page for process connection dimensions



STANDARD SPECIFICATIONS

- Power Supply : DC17.9~42V
- Load Resistance : 250 Ω at DC17.9V
: 1345 Ω at DC42V
- Output Signal : DC4~20mA
- Electronic Housing Structure : Water-proof and Dust-proof structure
: JIS C0920 Immersion-Proof Structure
: JIS F8001 Class 2 Water-tight Construction
: NEMA 3 and 4X Equiv. IEC IP67 Equiv.
- Finish : See Spec. List
- Installation : Process connection flanged to vessel.
: Transmitter body fixed to horizontal or vertical 2" pipe.
- Mass (Weight) : Approx. 18kg (ANSI 150-3B, Capillary length 5m)

Terminal Connection (M4 Screw)

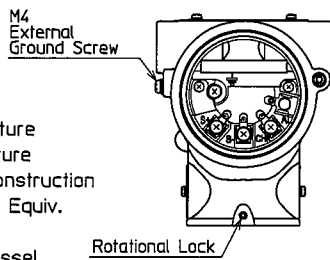


TABLE 1 Terminal Connection

SYMBOL	DETAILS
S+	POWER SUPPLY AND OUTPUT SIGNAL+
S-	POWER SUPPLY AND OUTPUT SIGNAL- / CHECK METER-
CHK/AL	CHECK METER+
⏏	GROUND

TABLE 2 Terminal Connection (Option *Q7*: Alarm Output)

SYMBOL	DETAILS
S+	POWER SUPPLY AND OUTPUT SIGNAL+
S-	POWER SUPPLY AND OUTPUT SIGNAL-
CHK/AL	ALARM+
⏏	GROUND/ALARM-

- Note 1) Capillary tube shall be fixed to protect it from damage due to vibration.
2) Choose gaskets that do not touch diaphragm after installation.

- ▣ Process Connection Dimensional Drawings
 - ➡ Flush Flange ED-526508-2
 - Extended Flange ED-526508-3
 - Small Flange ED-526508-4
 - Flush Flange (Diaphragm t=0.1) ED-526508-5
 - Extended Flange (Diaphragm t=0.1) ED-526508-6
 - Combination of Flush and Extended Flange ED-526508-7
- Special : Diaphragm t=0.1

REFERENCE

AT9000 ELECTRONIC DIFFERENTIAL PRESSURE TRANSMITTER
GTX (REMOTE SEALED TYPE)

MODEL NO.
GTX 35R/40R

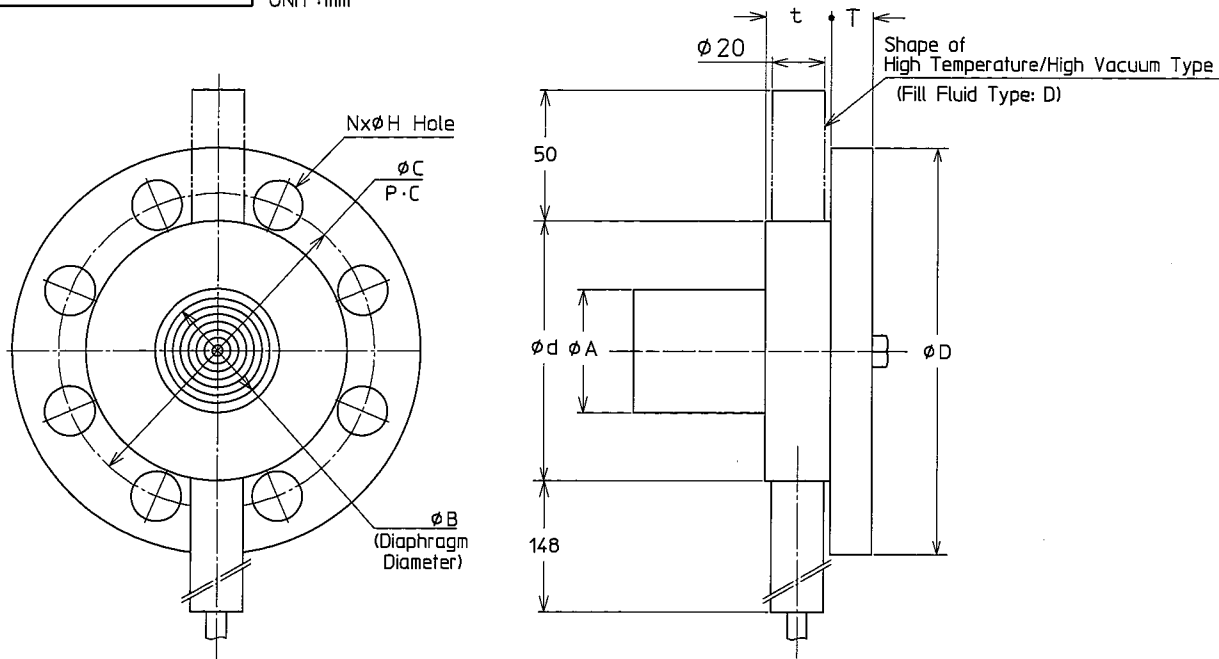
Yamatake Corporation

DATE JUL. 1. '08
REF.

DRAWING NO.
ED-526508-1

0	08-7-1	K. Y./I.L.	3		
1	08-10-6	K. Y./I.L.	4		
2	09-8-7	N. C./I.L.	5		
REV					

DIMENSIONAL DRAWING UNIT : mm



Flange Dimensions

Selection Code		Description										
Flange Size	Flange Rating	Flange Size	Flange Rating	ϕD	T	ϕC	N	ϕH	ϕd	t	ϕA	ϕB
E	A1	2" (50A)	ANSI 150	152	19.5	120.6	4	19	99	25	47 ± 1	43
	A2		ANSI 300	165	22.5	127	8	19				
	A3		ANSI 600	165	25.5	127	8	19				
	P1		JPI 150	152	19.5	120.6	4	19				
	P2		JPI 300	165	22.5	127	8	19				
	P3		JPI 600	165	25.5	127	8	19				
	J1		JIS 10K	155	16	120	4	19				
	J3		JIS 20K	155	18	120	8	19				
	J4		JIS 30K	165	22	130	8	19				
	J6		JIS 63K	185	34	145	8	23				
F	A1	3" (80A)	ANSI 150	190	24	152.4	4	19	129.5	25	69 ± 1	62
	A2		ANSI 300	210	28.5	168.1	8	22				
	A3		ANSI 600	210	32	168.1	8	22				
	P1		JPI 150	190	24	152.4	4	19				
	P2		JPI 300	210	28.5	168.1	8	22				
	P3		JPI 600	210	32	168.1	8	22				
	J1		JIS 10K	185	18	150	8	19				
	J3		JIS 20K	200	22	160	8	23				
	J4		JIS 30K	210	28	170	8	23				
	J6		JIS 63K	230	40	185	8	25				
G	A1	4" (100A)	ANSI 150	229	24	190.5	8	19	157	23	95 ± 1	90.4
	A2		ANSI 300	254	32	200.2	8	22				
	A3		ANSI 600	273	38.5	215.9	8	26				
	P1		JPI 150	229	24	190.5	8	19				
	P2		JPI 300	254	32	200.2	8	22				
	P3		JPI 600	273	38.5	215.9	8	26				
	J1		JIS 10K	210	18	175	8	19				
	J3		JIS 20K	225	24	185	8	23				
	J4		JIS 30K	240	32	195	8	25				

Extended Length L

Code	L
B	50
C	100
D	150
E	200
F	250
G	300

Flange Standard : ASME/ANSI B16.5 (1988)

JPI-7S-15-93

JIS B2220 (2004)

REFERENCE

Special: Diaphragm $t=0.1$

Note 1) Choose gaskets that do not touch diaphragm after installation.

AT9000 PROCESS CONNECTION OF REMOTE SEALED TYPE
GTX (EXTENDED FLANGE)

MODEL NO.
EXTENDED FLANGE

Yamatake Corporation

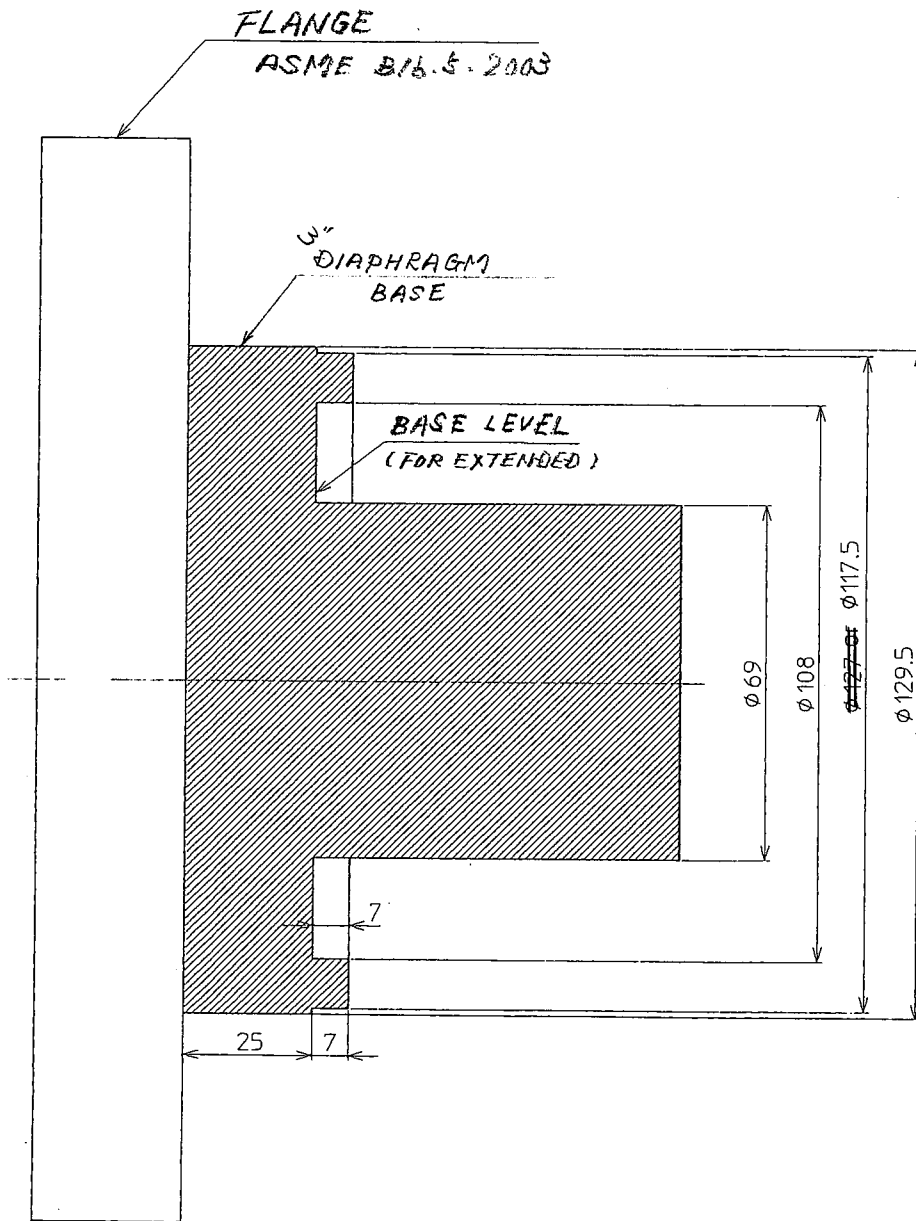
DATE JUL. 1. 08
REF.

DRAWING NO.
ED-526508-3

0	108-7-1	K.Y./I.I.	3	.	.
1	109-8-7	N.C./I.I.	4	.	.
2			5	.	.
REV					

EXTENDED FLANGE

3A



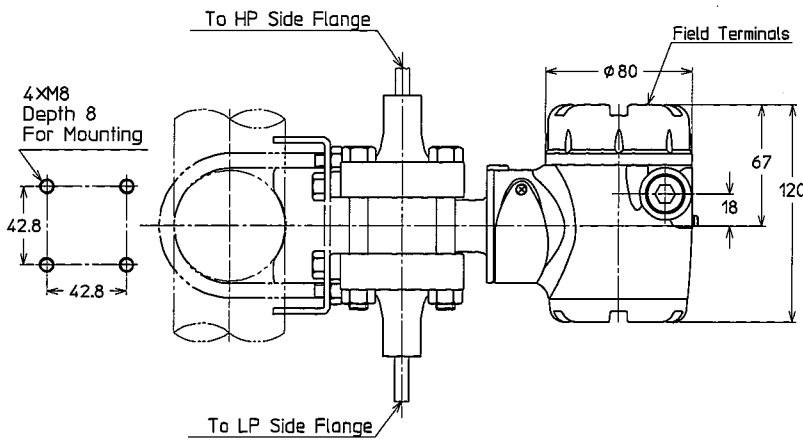
REFERENCE

ITEM No.	MODEL / NAME / SPECIFICATION
4	<p>MODEL GTX35R-BCDA2FFEF05-BA1ABB6-Q1R1T2T499</p> <p>NAME AT9000 Advanced Transmitter/Remote-seal differential pressure type</p> <p>GTX35R Measuring span 2.5 to 100 kPa (250 to 10,160 mmH₂O)</p> <p>-B output 4 to 20mA (HART Communication)</p> <p>C Fill fluid for High temperature Vacuum Service(Silicone OIL)</p> <p>D Wetted parts Material 316L SST</p> <p>A2 Flange Rating ANSI300</p> <p>F Flange Size 3in./80mm</p> <p>F Flange type Extended Length 250 mm</p> <p>E Flange Material/Bolt and Nut Material 316 SST/304 SST</p> <p>F Gasket face finish T & G (T)</p> <p>05 Capillary Length 5m</p> <p>-B Electrical Connection M20, Watertight</p> <p>A1 Explosion proof ATEX Explosionproof</p> <p>A Indicator with Indicator</p> <p>B Paint Corrosion-proof</p> <p>B Failure Alarm Lower Limit of output at abnormal Condition</p> <p>6 Mounting Bracket 304 SST (Flat form)</p> <p>-Q1 option Safety Transmitter</p> <p>R1 option Custom Calibration</p> <p>T2 option MILL Certificate</p> <p>T4 option Traceability Certificate (included Test Report)</p> <p>99 Special 3" ANSI 300# Large Tongue Face (ASME B16.5 - 2003)</p>
	<p>(1) TAG. No.: B-LT-4202</p> <p>Calibration Range: 0 to 14.04 kPa</p> <p>Indicator Scale: 0 to 100 %</p>

DIMENSIONAL DRAWING

UNIT : mm

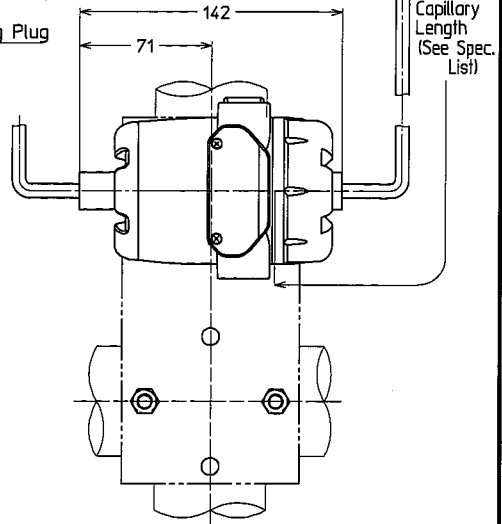
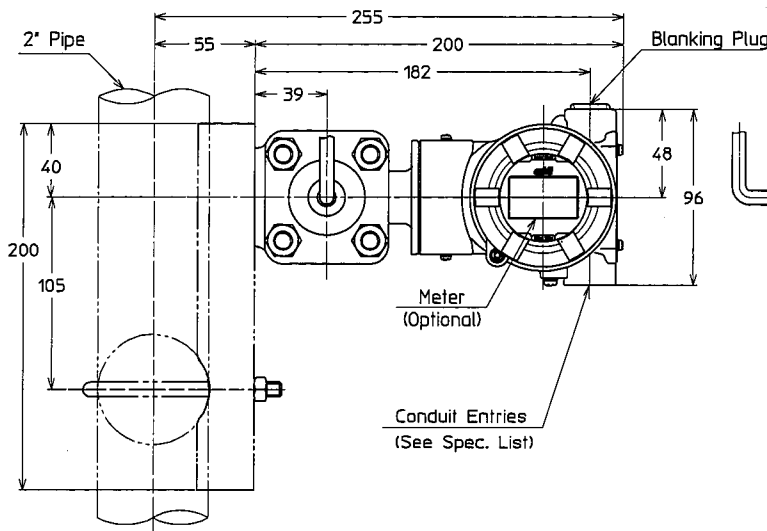
See attached page for process connection dimensions



1

2

3



STANDARD SPECIFICATIONS

- Power Supply : DC17.9~42V
- Load Resistance : 250 Ω at DC17.9V
: 1345 Ω at DC42V
- Output Signal : DC4~20mA
- Electronic Housing Structure : Water-proof and Dust-proof structure
: JIS C0920 Immersion-Proof Structure
: JIS F8001 Class 2 Water-tight Construction
: NEMA 3 and 4X Equiv. IEC IP67 Equiv.
- Finish : See Spec. List
- Installation : Process connection flanged to vessel.
: Transmitter body fixed to horizontal or vertical 2" pipe.
- Mass (Weight) : Approx. 18kg (ANSI 150-3B, Capillary length 5m)

4

5

Terminal Connection (M4 Screw)

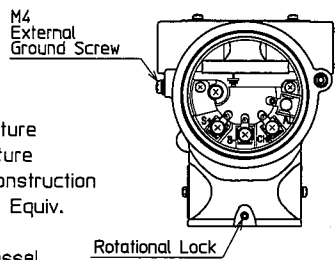


TABLE 1 Terminal Connection

SYMBOL	DETAILS
S+	POWER SUPPLY AND OUTPUT SIGNAL+
S-	POWER SUPPLY AND OUTPUT SIGNAL- / CHECK METER-
CHK/AL	CHECK METER+
⊥	GROUND

TABLE 2 Terminal Connection (Option *07* Alarm Output)

SYMBOL	DETAILS
S+	POWER SUPPLY AND OUTPUT SIGNAL+
S-	POWER SUPPLY AND OUTPUT SIGNAL-
CHK/AL	ALARM+
⊥	GROUND/ALARM-

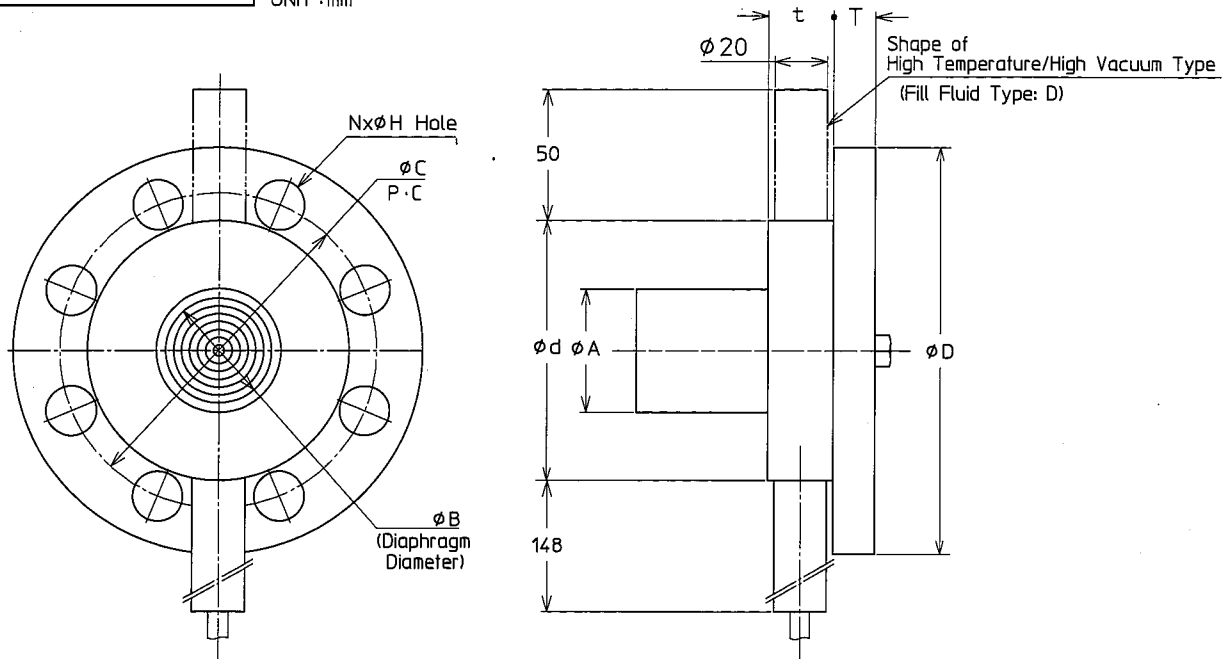
- ▨ Process Connection Dimensional Drawings
- ➡ Flush Flange ED-526508-2
- Extended Flange ED-526508-3
- Small Flange ED-526508-4
- Flush Flange (Diaphragm t=0.1) ED-526508-5
- Extended Flange (Diaphragm t=0.1) ED-526508-6
- Combination of Flush and Extended Flange ED-526508-7

- Note 1) Capillary tube shall be fixed to protect it from damage due to vibration.
- 2) Choose gaskets that do not touch diaphragm after installation.

0	08-7-1	K. Y. / I. I.	3	.	.
1	08-10-6	K. Y. / I. I.	4	.	.
2	09-8-7	N. C. / I. I.	5	.	.
REV					

AT9000 GTX	ELECTRONIC DIFFERENTIAL PRESSURE TRANSMITTER (REMOTE SEALED TYPE)	MODEL NO. GTX 35R/40R
Yamatake Corporation		DRAWING NO. ED-526508-1
DATE	JUL. 1. '08	REF.

DIMENSIONAL DRAWING UNIT : mm



Flange Dimensions

Selection Code		Description																
Flange Size	Flange Rating	Flange Size	Flange Rating	ØD	T	ØC	N	ØH	Ød	t	ØA	ØB						
E	A1	2" (50A)	ANSI 150	152	19.5	120.6	4	19	99	25	47±1	43						
	A2		ANSI 300	165	22.5	127	8	19										
	A3		ANSI 600	165	25.5	127	8	19										
	P1		JPI 150	152	19.5	120.6	4	19										
	P2		JPI 300	165	22.5	127	8	19										
	P3		JPI 600	165	25.5	127	8	19										
	J1		JIS 10K	155	16	120	4	19										
	J3		JIS 20K	155	18	120	8	19										
	J4		JIS 30K	165	22	130	8	19										
	J6		JIS 63K	185	34	145	8	23										
	F		A1	3" (80A)	ANSI 150	190	24	152.4					4	19	129.5	25	69±1	62
			A2		ANSI 300	210	28.5	168.1					8	22				
A3		ANSI 600	210		32	168.1	8	22										
P1		JPI 150	190		24	152.4	4	19										
P2		JPI 300	210		28.5	168.1	8	22										
P3		JPI 600	210		32	168.1	8	22										
J1		JIS 10K	185		18	150	8	19										
J3		JIS 20K	200		22	160	8	23										
J4		JIS 30K	210		28	170	8	23										
J6		JIS 63K	230		40	185	8	25										
G		A1	4" (100A)		ANSI 150	229	24	190.5	8	19	157	23	95±1	90.4				
		A2			ANSI 300	254	32	200.2	8	22								
	A3	ANSI 600		273	38.5	215.9	8	26										
	P1	JPI 150		229	24	190.5	8	19										
	P2	JPI 300		254	32	200.2	8	22										
	P3	JPI 600		273	38.5	215.9	8	26										
	J1	JIS 10K		210	18	175	8	19										
	J3	JIS 20K		225	24	185	8	23										
	J4	JIS 30K		240	32	195	8	25										

Extended Length L

Code	L
B	50
C	100
D	150
E	200
F	250
G	300

Flange Standard : ASME/ANSI B16.5 (1988)
 JPI-7S-15-93
 JIS B2220 (2004)

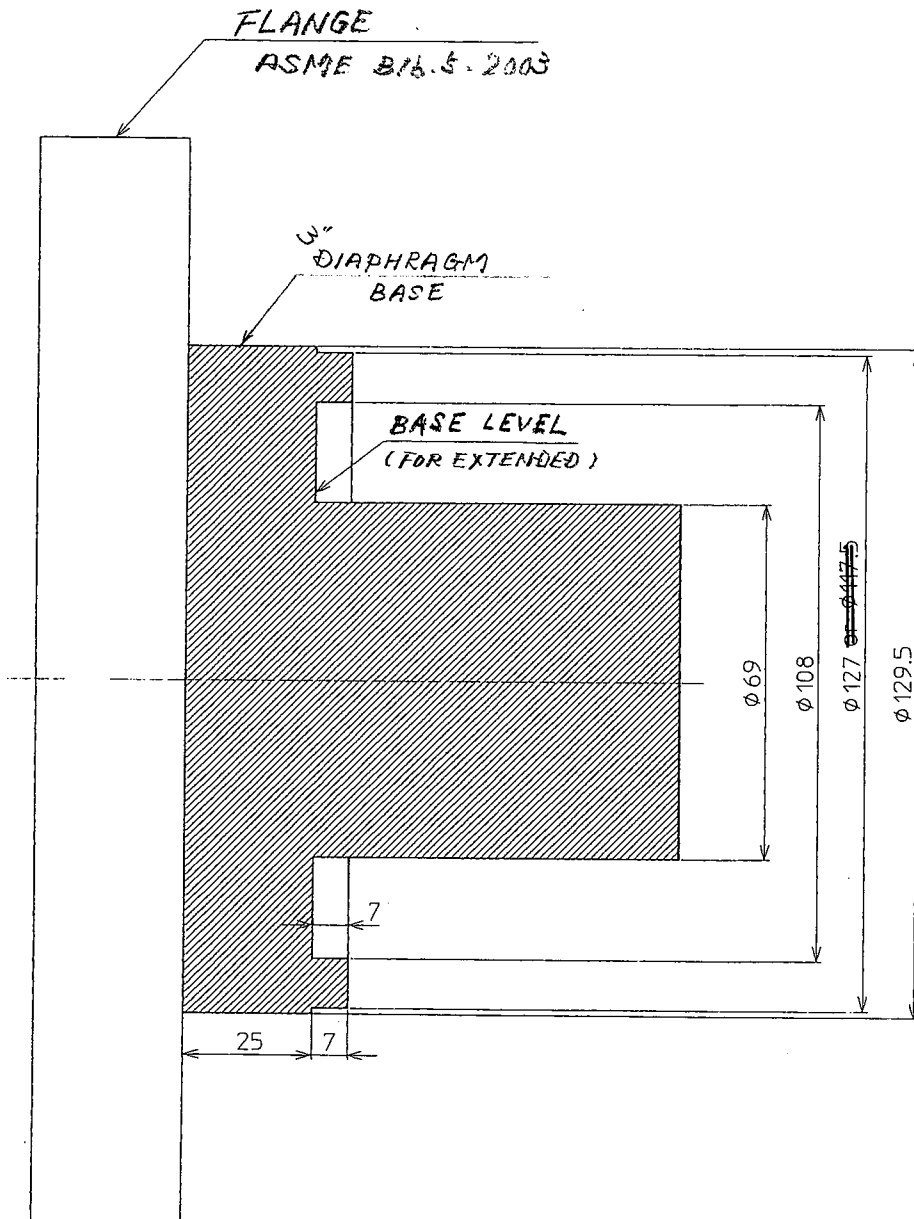
Note 1) Choose gaskets that do not touch diaphragm after installation.

AT9000 PROCESS CONNECTION OF REMOTE SEALED TYPE GTX (EXTENDED FLANGE)		MODEL NO. EXTENDED FLANGE
Yamatake Corporation		DRAWING NO. ED-526508-3
DATE JUL. 1. 08		REF.

0	08-7-1	K.Y./I.I.	3	.	.
1	09-8-7	N.C./I.I.	4	.	.
2	.	.	5	.	.
REV					

EXTENDED FLANGE

4A



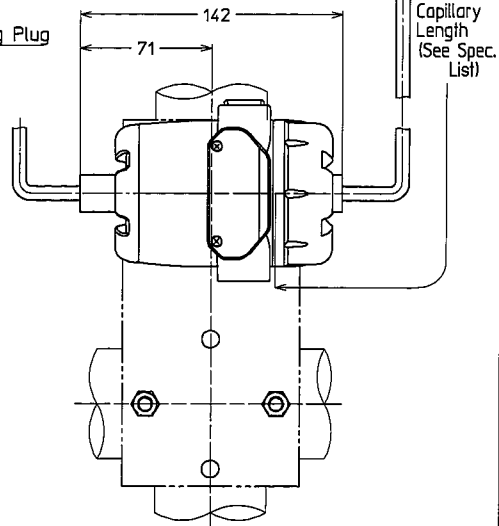
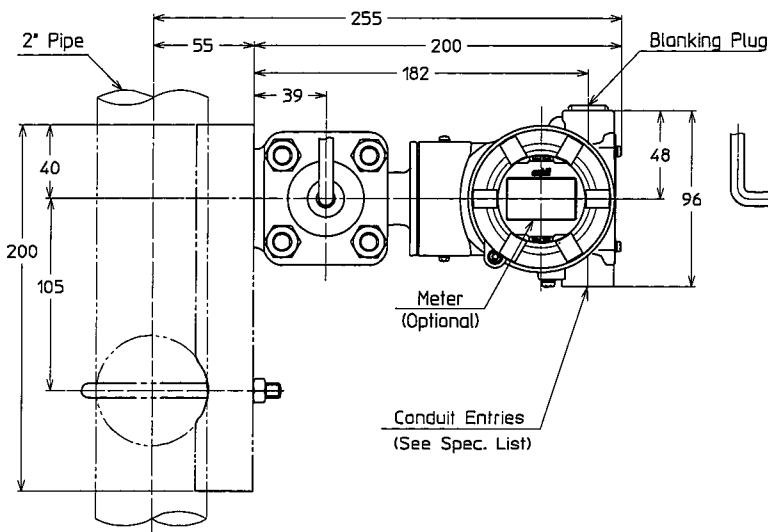
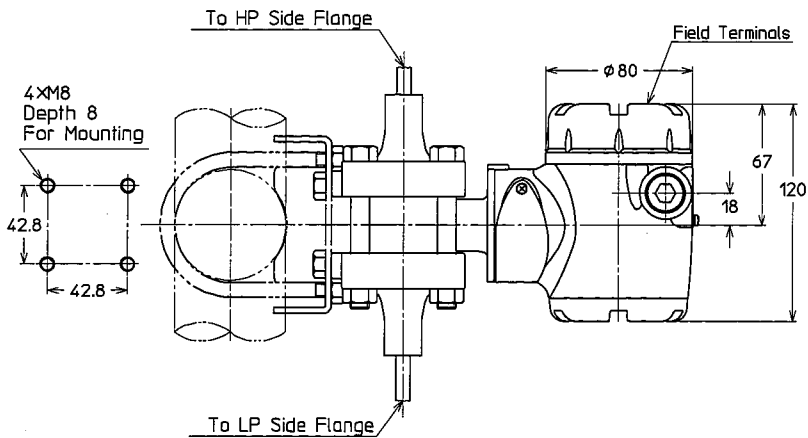
REFERENCE

ITEM No.	MODEL / NAME / SPECIFICATION
5	<p>MODEL GTX35R-BAAA1FEEK05-BA1ABB6-Q1R1T2T499</p> <p>NAME AT9000 Advanced Transmitter/Remote-seal differential pressure type.</p> <p>GTX35R Measuring span 2.5 to 100 kPa (250 to 10,160 mmH2O)</p> <p>-B output 4 to 20mA (HART Communication)</p> <p>A Fill fluid Regular type</p> <p>A Wetted parts Material 316 SST (Diaphragm: 316L SST)</p> <p>A1 Flange Rating ANSI150</p> <p>F Flange Size 3in./80mm</p> <p>E Flange type Extended Length 200 mm</p> <p>E Flange Material/Bolt and Nut Material 316 SST/304 SST</p> <p>K Gasket face finish t & g (t)</p> <p>05 Capillary Length 5m</p> <p>-B Electrical Connection M20, Watertight</p> <p>A1 Explosion proof ATEX Explosionproof</p> <p>A Indicator with Indicator</p> <p>B Paint Corrosion-proof</p> <p>B Failure Alarm Lower Limit of output at abnormal Condition</p> <p>6 Mounting Bracket 304 SST (Flat form)</p> <p>-Q1 option Safety Transmitter</p> <p>R1 option Custom Calibration</p> <p>T2 option MILL Certificate</p> <p>T4 option Traceability Certificate (included Test Report)</p> <p>99 Special 3" ANSI 150# Small Tongue Face (ASME B16.5 - 2003)</p>
	<p>(1) TAG. No.: B-LT-6501</p> <p>Calibration Range: 0 to 16.25 kPa</p> <p>Indicator Scale: 0 to 100 %</p>

DIMENSIONAL DRAWING

UNIT : mm

See attached page for process connection dimensions



STANDARD SPECIFICATIONS

- Power Supply : DC17.9~42V
- Load Resistance : 250 Ω at DC17.9V
: 1345 Ω at DC42V
- Output Signal : DC4~20mA
- Electronic Housing Structure : Water-proof and Dust-proof structure
: JIS C0920 Immersion-Proof Structure
: JIS F8001 Class 2 Water-tight Construction
: NEMA 3 and 4X Equiv. IEC IP67 Equiv.
- Finish : See Spec. List
- Installation : Process connection flanged to vessel.
: Transmitter body fixed to horizontal or vertical 2" pipe.
- Mass (Weight) : Approx. 18kg (ANSI 150-3B, Capillary length 5m)

Terminal Connection (M4 Screw)

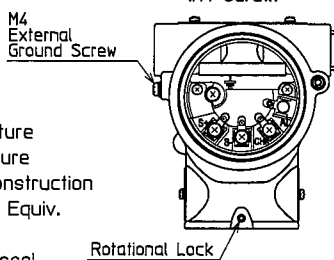


TABLE 1 : Terminal Connection

SYMBOL	DETAILS
S+	POWER SUPPLY AND OUTPUT SIGNAL+
S-	POWER SUPPLY AND OUTPUT SIGNAL- / CHECK METER-
CHK/AL	CHECK METER+
⊥	GROUND

TABLE 2 : Terminal Connection (Option *Q7* Alarm Output)

SYMBOL	DETAILS
S+	POWER SUPPLY AND OUTPUT SIGNAL+
S-	POWER SUPPLY AND OUTPUT SIGNAL-
CHK/AL	ALARM+
⊥	GROUND/ALARM-

- ▨ Process Connection Dimensional Drawings
- ➡ Flush Flange ED-526508-2
- Extended Flange ED-526508-3
- Small Flange ED-526508-4
- Flush Flange (Diaphragm t=0.1) ED-526508-5
- Extended Flange (Diaphragm t=0.1) ED-526508-6
- Combination of Flush and Extended Flange ED-526508-7

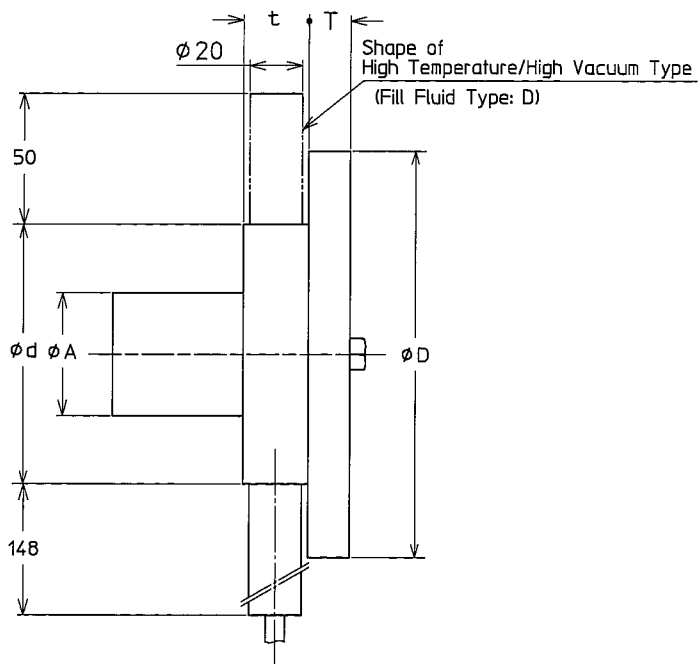
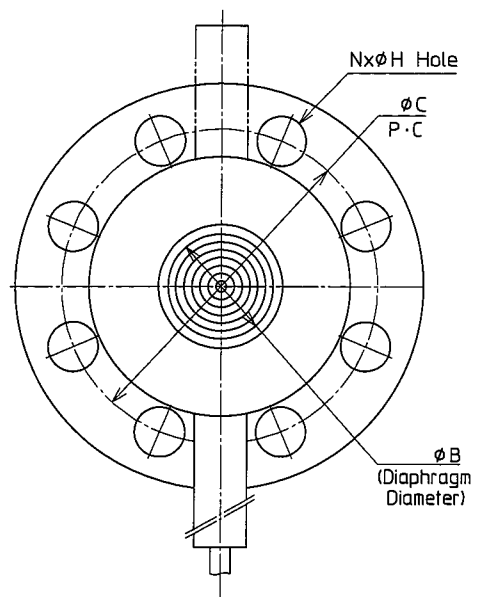
- Note 1) Capillary tube shall be fixed to protect it from damage due to vibration.
- 2) Choose gaskets that do not touch diaphragm after installation.

0	08	7	1	K	Y	/	1	1	1
1	08	10	6	K	Y	/	1	1	1
2	09	8	7	N	C	/	1	1	1
REV									

AT9000 ELECTRONIC DIFFERENTIAL PRESSURE TRANSMITTER GTX (REMOTE SEALED TYPE)		MODEL NO. GTX 35R/40R
Yamatake Corporation		DRAWING NO. ED-526508-1
DATE	JUL . 1. '08	REF.

DIMENSIONAL DRAWING

UNIT : mm



Flange Dimensions

Selection Code		Description																
Flange Size	Flange Rating	Flange Size	Flange Rating	∅D	T	∅C	N	∅H	∅d	t	∅A	∅B						
E	A1	2" (50A)	ANSI 150	152	19.5	120.6	4	19	99	25	47 ⁺¹	43						
	A2		ANSI 300	165	22.5	127	8	19										
	A3		ANSI 600	165	25.5	127	8	19										
	P1		JPI 150	152	19.5	120.6	4	19										
	P2		JPI 300	165	22.5	127	8	19										
	P3		JPI 600	165	25.5	127	8	19										
	J1		JIS 10K	155	16	120	4	19										
	J3		JIS 20K	155	18	120	8	19										
	J4		JIS 30K	165	22	130	8	19										
	J6		JIS 63K	185	34	145	8	23										
	F		A1	3" (80A)	ANSI 150	190	24	152.4					4	19	129.5	25	69 ⁺¹	62
			A2		ANSI 300	210	28.5	168.1					8	22				
A3		ANSI 600	210		32	168.1	8	22										
P1		JPI 150	190		24	152.4	4	19										
P2		JPI 300	210		28.5	168.1	8	22										
P3		JPI 600	210		32	168.1	8	22										
J1		JIS 10K	185		18	150	8	19										
J3		JIS 20K	200		22	160	8	23										
J4		JIS 30K	210		28	170	8	23										
J6		JIS 63K	230		40	185	8	25										
G		A1	4" (100A)		ANSI 150	229	24	190.5	8	19	157	23	95 ⁺¹	90.4				
		A2			ANSI 300	254	32	200.2	8	22								
	A3	ANSI 600		273	38.5	215.9	8	26										
	P1	JPI 150		229	24	190.5	8	19										
	P2	JPI 300		254	32	200.2	8	22										
	P3	JPI 600		273	38.5	215.9	8	26										
	J1	JIS 10K		210	18	175	8	19										
	J3	JIS 20K		225	24	185	8	23										
	J4	JIS 30K		240	32	195	8	25										

Extended Length L

Code	L
B	50
C	100
D	150
E	200
F	250
G	300

Flange Standard : ASME/ANSI B16.5 (1988)
 JPI-7S-15-93
 JIS B2220 (2004)

Note 1) Choose gaskets that do not touch diaphragm after installation.

AT9000 PROCESS CONNECTION OF REMOTE SEALED TYPE
 GTX (EXTENDED FLANGE)

MODEL NO.
 EXTENDED FLANGE

Yamatake Corporation

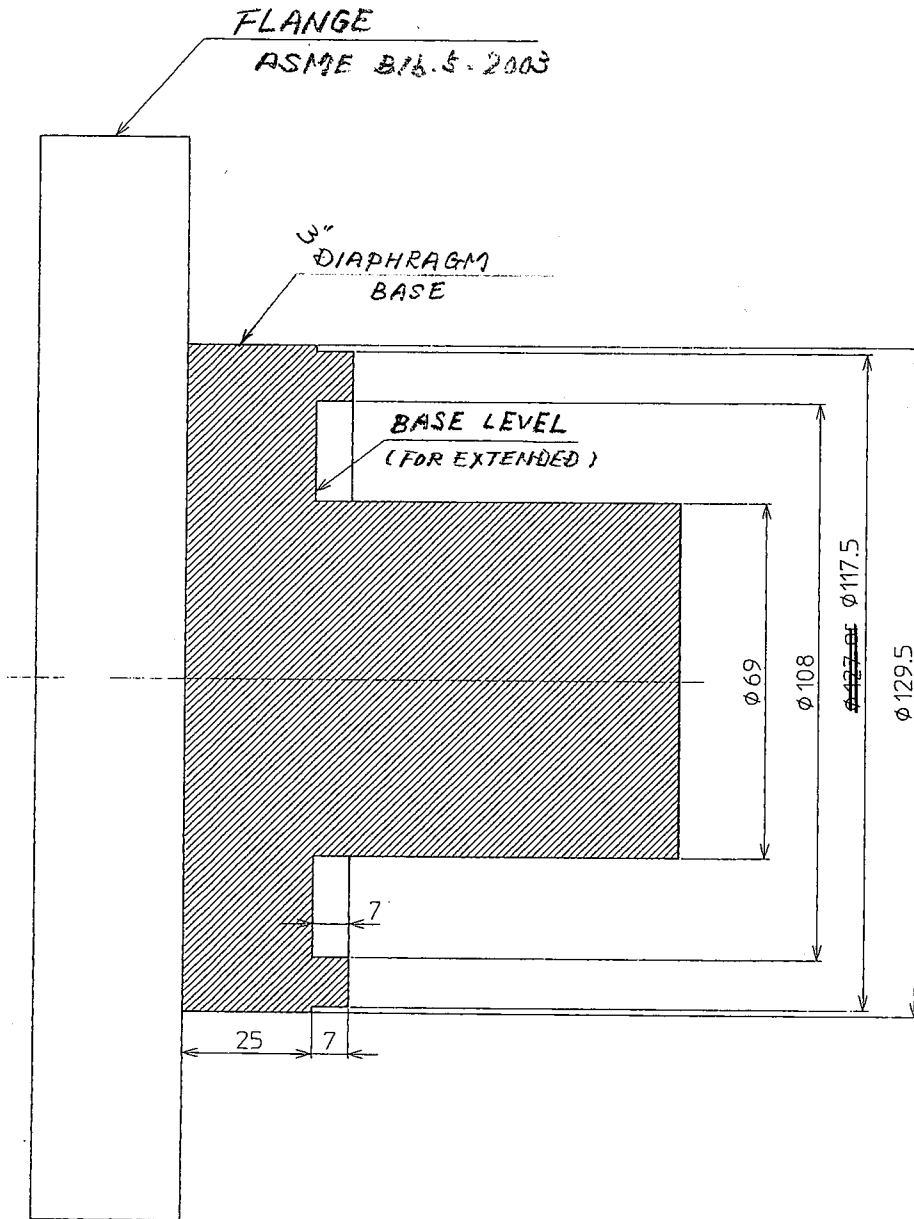
DATE JUL. 1. 08
 REF.

DRAWING NO.
 ED-526508-3

0	08	7	1	K.Y / I.I.	3	.	.
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2					5	.	.

EXTENDED FLANGE

5A

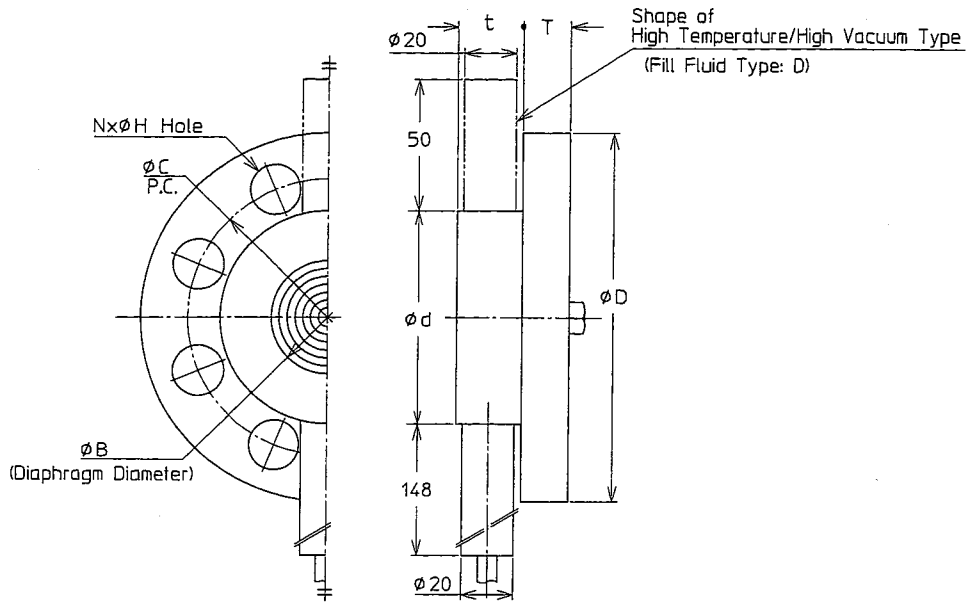


REFERENCE

ITEM No.	MODEL / NAME / SPECIFICATION		
6	MODEL	GTX35RZ-BAAA2GAEF10-BA1ABB6-Q1R1T2T499	
	NAME	AT9000 Advanced Transmitter/Remote-seal differential pressure type	
	GTX35R	Measuring span	2.5 to 100 kPa (250 to 10,160 mmH2O)
	-B	output	4 to 20mA (HART Communication)
	A	Fill fluid	Regular type
	A	Wetted parts Material	316 SST (Diaphragm: 316L SST)
	A2	Flange Rating	ANSI300
	G	Flange Size	4in./100mm
	A	Flange type	Flush type
	E	Flange Material/Bolt and Nut Material	316 SST/304 SST
	F	Gasket face finish	T & G (T)
	10	Capillary Length	10m
	-B	Electrical Connection	M20, Watertight
	A1	Explosion proof	ATEX Explosionproof
	A	Indicator	with Indicator
	B	Paint	Corrosion-proof
	B	Failure Alarm	Lower Limit of output at abnormal Condition
	6	Mounting Bracket	304 SST (Flat form)
	-Q1	option	Safety Transmitter
	R1	option	Custom Calibration
	T2	option	MILL Certificate
	T4	option	Traceability Certificate (included Test Report)
	99	Special	3" ANSI 300# Large Tongue Face (ASME B16.5 - 2003)
	Code Z	Special	4" Flange with Steam Trace
	(1)	TAG. No.: B-LT-7073 Calibration Range: 0 to 62.71 kPa Indicator Scale: 0 to 100 %	
	(2)	TAG. No.: B-LT-7074 Calibration Range: 0 to 62.71 kPa Indicator Scale: 0 to 100 %	

DIMENSIONAL DRAWING

UNIT : mm



Flange Dimensions

Selection Code		Description		øD	T	øC	N	øH	ød			
Flange Size	Flange Rating	Flange Size	Flange Rating									
D	A1	1-1/2" (40A)	ANSI 150	127	18	98.6	4	16	81			
	A2		ANSI 300	155	25	114.3	4	22				
	A3		ANSI 600	155	32	114.3	4	22				
	P1		JPI 150	127	18	98.6	4	16				
	P2		JPI 300	155	25	114.3	4	22				
	P3		JPI 600	155	32	114.3	4	22				
	J1		JIS 10K	140	18	105	4	19				
	J3		JIS 20K	140	18	105	4	19				
	J4		JIS 30K	160	25	120	4	23				
	J6		JIS 63K	175	32	130	4	25				
	E		A1	2" (50A)	ANSI 150	152	19.5	120.6		4	19	99
			A2		ANSI 300	165	22.5	127		8	19	
A3		ANSI 600	165		25.5	127	8	19				
P1		JPI 150	152		19.5	120.6	4	19				
P2		JPI 300	165		22.5	127	8	19				
P3		JPI 600	165		25.5	127	8	19				
J1		JIS 10K	155		16	120	4	19				
J3		JIS 20K	155		18	120	8	19				
J4		JIS 30K	165		22	130	8	19				
J6		JIS 63K	185		34	145	8	23				
F		A1	3" (80A)		ANSI 150	190	24	152.4	4	19	129.5	
		A2			ANSI 300	210	28.5	168.1	8	22		
	A3	ANSI 600		210	32	168.1	8	22				
	P1	JPI 150		190	24	152.4	4	19				
	P2	JPI 300		210	28.5	168.1	8	22				
	P3	JPI 600		210	32	168.1	8	22				
	J1	JIS 10K		185	18	150	8	19				
	J3	JIS 20K		200	22	160	8	23				
	J4	JIS 30K		210	28	170	8	23				
	J6	JIS 63K		230	40	185	8	25				
	G	A1		4" (100A)	ANSI 150	229	24	190.5	8	19		129.5
		A2			ANSI 300	254	32	200.2	8	22		
A3		ANSI 600	273		38.5	215.9	8	26				
P1		JPI 150	229		24	190.5	8	19				
P2		JPI 300	254		32	200.2	8	22				
P3		JPI 600	273		38.5	215.9	8	26				
J1		JIS 10K	210		18	175	8	19				
J3		JIS 20K	225		24	185	8	23				
J6		JIS 30K	240		32	195	8	25				

Diaphragm Diameter

Selection Code		Description		øB	t
Flange Size	Wetted Parts	Flange Size	Wetted Parts		
D	A,C,D	1 1/2" (40A)	SUS316 Tantalum SUS316L	43	25
	B		ASTM B575 (Hastelloy C-276 Equivalent)		26.7
E	A,C,D	2" (50A)	SUS316 Tantalum SUS316L	62	25
	B		ASTM B575 (Hastelloy C-276 Equivalent)		26.7
F	A,B,C,D	3" (80A)	SUS316 ASTM B575 Tantalum SUS316L	95	25

0	08-7-1	K.Y / I.L	3
1	08-7-3	K.Y / I.L	4
2	09-8-7	NC / I.L	5
6						
7						
8						

Note 1) Choose gaskets that do not touch diaphragm after installation.

AT9000 PROCESS CONNECTION OF REMOTE SEALED TYPE GTX (FLUSH FLANGE)

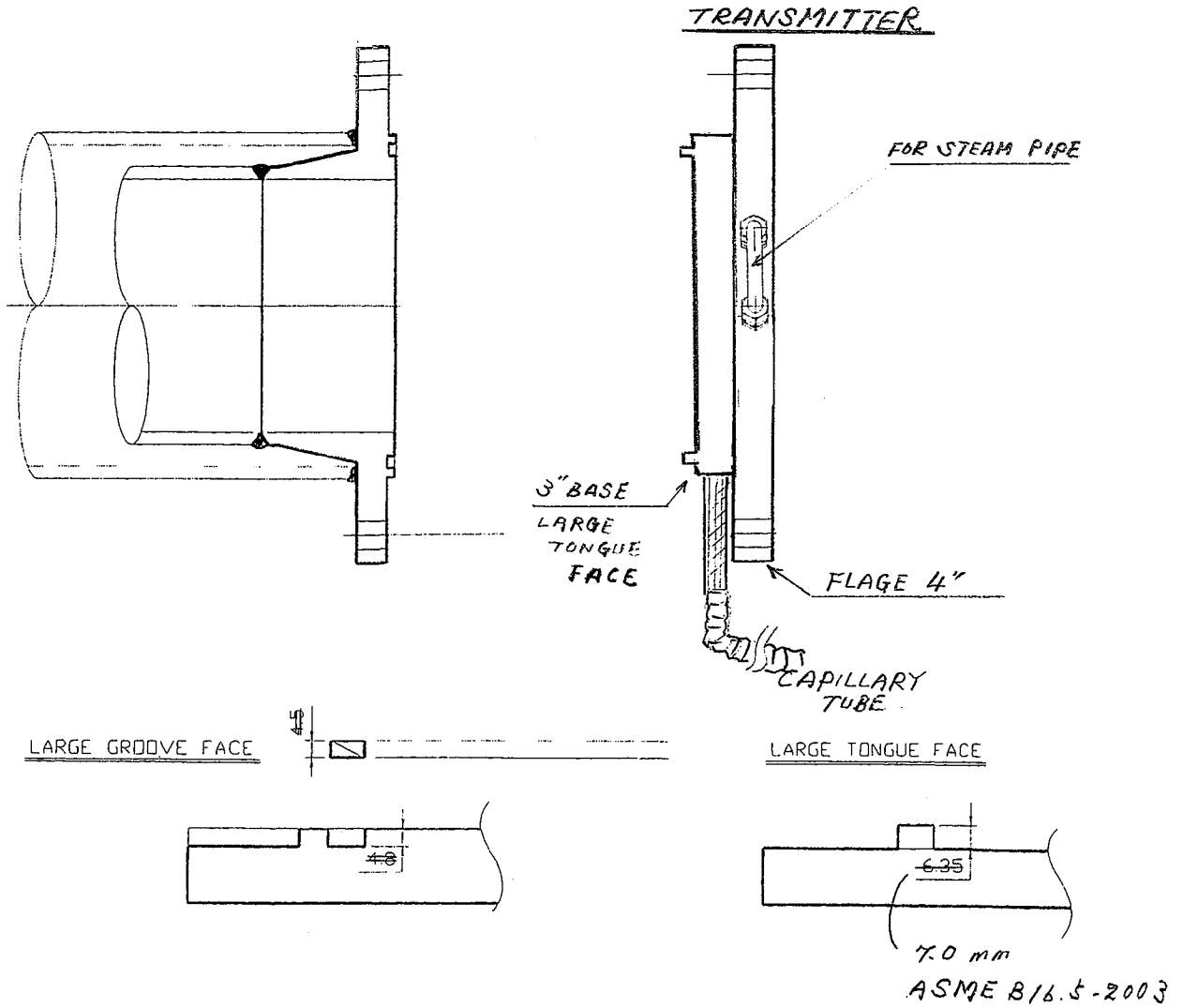
MODEL NO. FLUSH FLANGE

Yamatake Corporation

DATE JUL . 1. 08
REF. 80372524
80372529

DRAWING NO. ED-526508-2

FLANGE FOR JACKETED PIPING ASME B16.5 (Large Tongue & Groove Face) / Class 300						
						PAGE:

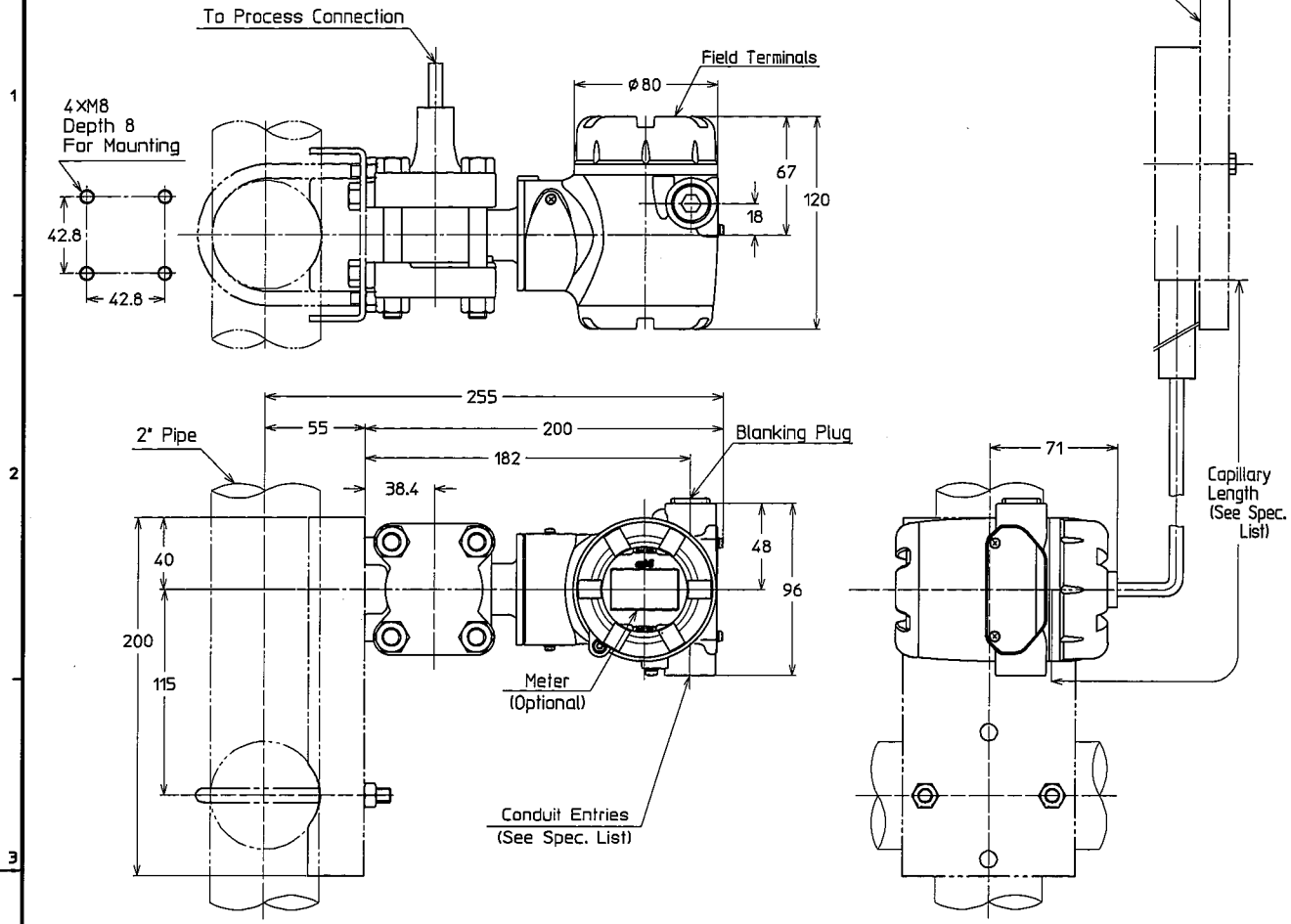


ITEM No.	MODEL / NAME / SPECIFICATION
7	<p>MODEL GTX60U-BCDA1FAEK05-BA1ABB6-Q1R1T2T499 NAME AT9000 Advanced Transmitter/Remote-seal differential pressure type</p> <p>GTX60U Measuring span 35 to 3500 kPa (0.35 to 35 kgf/cm2) -B output 4 to 20mA (HART Communication) C Fill fluid for High temperature Vacuum Service(Silicone OIL) D Wetted parts Material 316L SST A1 Flange Rating ANSI150 F Flange Size 3in./80mm A Flange type Flush type E Flange Material/Bolt and Nut Material 316 SST/304 SST K Gasket face finish t & g (t) 05 Capillary Length 5m -B Electrical Connection M20, Watertight A1 Explosion proof ATEX Explosionproof A Indicator with Indicator B Paint Corrosion-proof B Failure Alarm Lower Limit of output at abnormal Condition 6 Mounting Bracket 304 SST (Flat form) -Q1 option Safety Transmitter R1 option Custom Calibration T2 option MILL Certificate T4 option Traceability Certificate (included Test Report) 99 Special 3" ANSI 150# Small Tongue Face (ASME B16.5 - 2003)</p>
	<p>(1) TAG. No.: B-PT-2501B Calibration Range: -100 to 0 kPa Indicator Scale: -100 to 0 kPa</p> <p>(2) TAG. No.: B-PT-2507 Calibration Range: -100 to 0 kPa Indicator Scale: -100 to 0 kPa</p>

DIMENSIONAL DRAWING

UNIT : mm

See attached page for process connection dimensions



STANDARD SPECIFICATIONS

- Power Supply : DC17.9~42V
- Load Resistance : 250 Ω at DC17.9V
: 1345 Ω at DC42V
- Output Signal : DC4~20mA
- Electronic Housing Structure : Water-proof and Dust-proof structure
: JIS C0920 Immersion-Proof Structure
: JIS F8001 Class 2 Water-tight Construction
: NEMA 3 and 4X Equiv. IEC IP67 Equiv.
- Finish : See Spec. List
- Installation : Process connection flanged to vessel.
: Transmitter body fixed to horizontal or vertical 2" pipe.
- Mass (Weight) : Approx. 12.5kg (ANSI 150-2B, capillary length 5m)

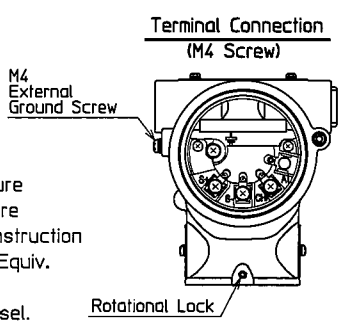


TABLE 1 : Terminal Connection

SYMBOL	DETAILS
S+	POWER SUPPLY AND OUTPUT SIGNAL+
S-	POWER SUPPLY AND OUTPUT SIGNAL- / CHECK METER-
CHK/AL	CHECK METER+
⏏	GROUND

TABLE 2 : Terminal Connection (Option *Q7* : Alarm Output)

SYMBOL	DETAILS
S+	POWER SUPPLY AND OUTPUT SIGNAL+
S-	POWER SUPPLY AND OUTPUT SIGNAL-
CHK/AL	ALARM+
⏏	GROUND/ALARM-

- ▣ Process Connection Dimensional Drawings
- ➡ Flush Flange ED-526508-2
- Extended Flange ED-526508-3
- Small Flange ED-526508-4
- Flush Flange (Diaphragm t=0.1) ED-526508-5
- Extended Flange (Diaphragm t=0.1) ED-526508-6
- 2" Wafer ED-526509-2
- G1-1/2" Button Diaphragm ED-526509-3

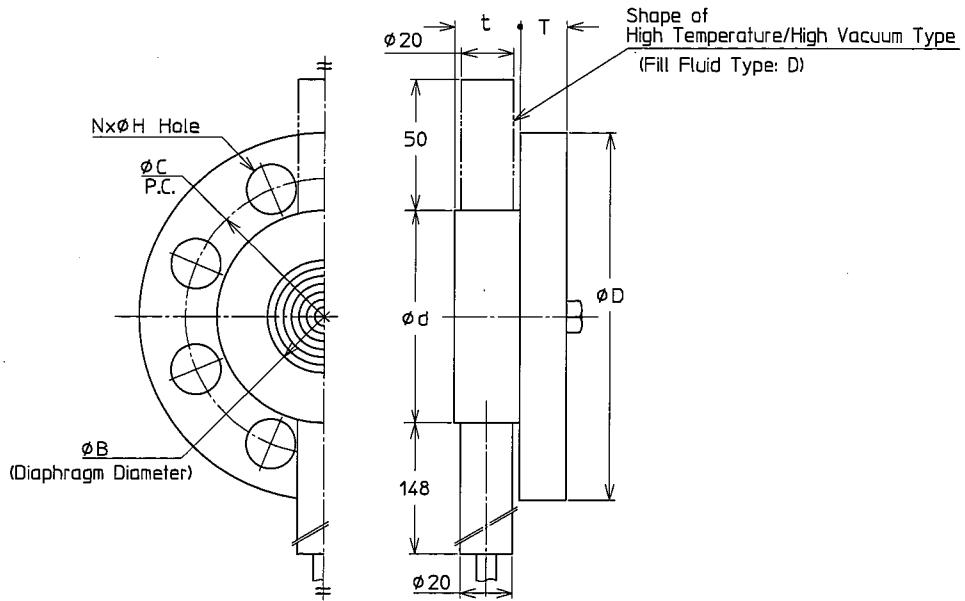
- Note 1) Capillary tube shall be fixed to protect it from damage due to vibration.
- 2) Choose gaskets that do not touch diaphragm after installation.

0	08-7-1	K. Y. / I. I.	3	.	.
1	08-10-6	K. Y. / I. I.	4	.	.
2	09-8-7	N. C. / I. I.	5	.	.
REV					

AT9000 ELECTRONIC GAUGE PRESSURE TRANSMITTER GTX (REMOTE SEALED TYPE)		MODEL NO. GTX 35U/60U/71U
Yamatake Corporation		DRAWING NO. ED-526509-1
DATE JUL. 1. '08	REF.	

DIMENSIONAL DRAWING

UNIT : mm



Flange Dimensions

Selection Code		Description										
Flange Size	Flange Rating	Flange Size	Flange Rating	∅D	T	∅C	N	∅H	∅d			
D	A1	1-1/2" (40A)	ANSI 150	127	18	98.6	4	16	81			
	A2		ANSI 300	155	25	114.3	4	22				
	A3		ANSI 600	155	32	114.3	4	22				
	P1		JPI 150	127	18	98.6	4	16				
	P2		JPI 300	155	25	114.3	4	22				
	P3		JPI 600	155	32	114.3	4	22				
	J1		JIS 10K	140	18	105	4	19				
	J3		JIS 20K	140	18	105	4	19				
	J4		JIS 30K	160	25	120	4	23				
	J6		JIS 63K	175	32	130	4	25				
	E		A1	2" (50A)	ANSI 150	152	19.5	120.6		4	19	99
			A2		ANSI 300	165	22.5	127		8	19	
A3		ANSI 600	165		25.5	127	8	19				
P1		JPI 150	152		19.5	120.6	4	19				
P2		JPI 300	165		22.5	127	8	19				
P3		JPI 600	165		25.5	127	8	19				
J1		JIS 10K	155		16	120	4	19				
J3		JIS 20K	155		18	120	8	19				
J4		JIS 30K	165		22	130	8	19				
J6		JIS 63K	185		34	145	8	23				
F		A1	3" (80A)		ANSI 150	190	24	152.4	4	19	129.5	
		A2			ANSI 300	210	28.5	168.1	8	22		
	A3	ANSI 600		210	32	168.1	8	22				
	P1	JPI 150		190	24	152.4	4	19				
	P2	JPI 300		210	28.5	168.1	8	22				
	P3	JPI 600		210	32	168.1	8	22				
	J1	JIS 10K		185	18	150	8	19				
	J3	JIS 20K		200	22	160	8	23				
	J4	JIS 30K		210	28	170	8	23				
	J6	JIS 63K		230	40	185	8	25				

Diaphragm Diameter

Selection Code		Description		∅B	t
Flange Size	Wetted Parts	Flange Size	Wetted Parts		
D	A,C,D	1 1/2" (40A)	SUS316 Tantalum SUS316L	43	25
	B		ASTM B575 (Hastelloy C-276 Equivalent)		
E	A,C,D	2" (50A)	SUS316 Tantalum SUS316L	62	25
	B		ASTM B575 (Hastelloy C-276 Equivalent)		
F	A,B,C,D	3" (80A)	SUS316 Tantalum SUS316L	95	25

Flange Standard : ASME/ANSI B16.5 (1988)
 JPI-7S-15-93
 JIS B2220 (2004)

Note 1) Choose gaskets that do not touch diaphragm after installation.

AT9000 PROCESS CONNECTION OF REMOTE SEALED TYPE
 GTX (FLUSH FLANGE)

MODEL NO.
 FLUSH FLANGE

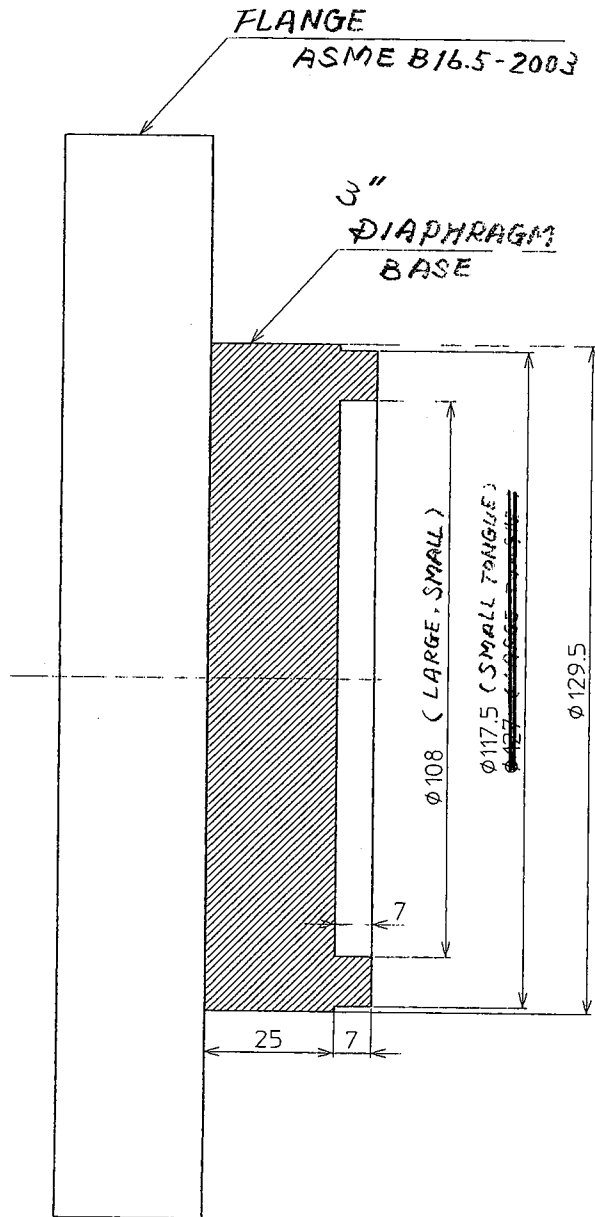
Yamatake Corporation

DATE JUL. 1. 08
 REF. 80372524
 80372529

DRAWING NO.
 ED-526508-2

0	08-7-1	K.Y / I.I.	3
1	08-7-3	K.Y / I.I.	4
2	09-8-7	N.C / I.I.	5
6							
7							
8							

FLUSH FLANGE



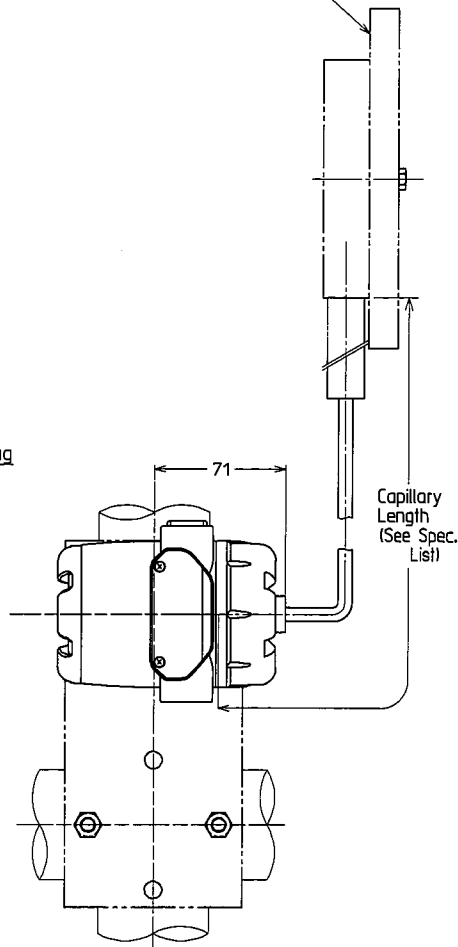
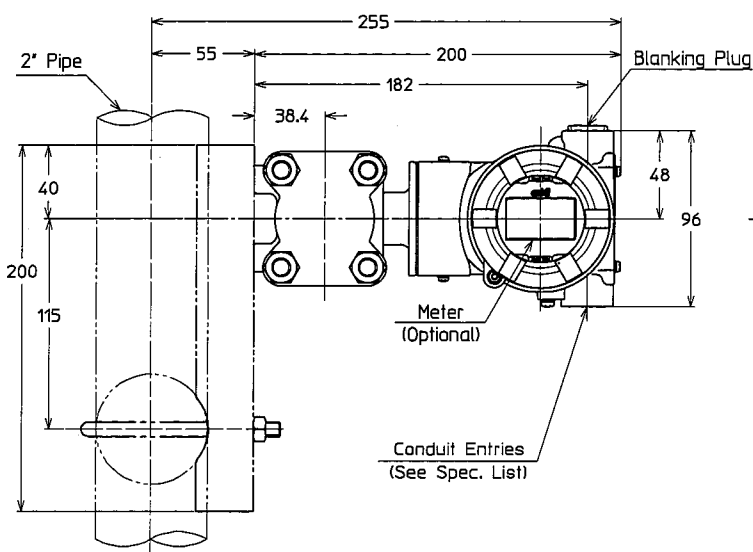
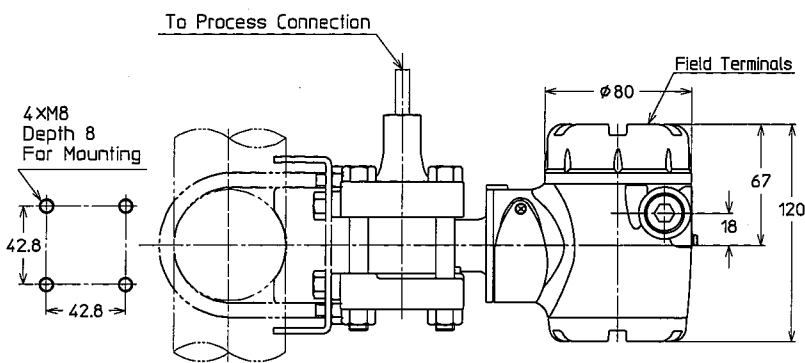
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ITEM No.	MODEL / NAME / SPECIFICATION
8	<p>MODEL GTX60U-BCDA2FFEF05-BA1ABB6-Q1R1T2T499</p> <p>NAME AT9000 Advanced Transmitter/Remote-seal differential pressure type</p> <p>GTX60U Measuring span 35 to 3500 kPa (0.35 to 35 kgf/cm²)</p> <p>-B output 4 to 20mA (HART Communication)</p> <p>C Fill fluid for High temperature Vacuum Service(Silicone OIL)</p> <p>D Wetted parts Material 316L SST</p> <p>A2 Flange Rating ANSI300</p> <p>F Flange Size 3in./80mm</p> <p>F Flange type Extended Length 250 mm</p> <p>E Flange Material/Bolt and Nut Material 316 SST/304 SST</p> <p>F Gasket face finish T & G (T)</p> <p>05 Capillary Length 5m</p> <p>-B Electrical Connection M20, Watertight</p> <p>A1 Explosion proof ATEX Explosionproof</p> <p>A Indicator with Indicator</p> <p>B Paint Corrosion-proof</p> <p>B Failure Alarm Lower Limit of output at abnormal Condition</p> <p>6 Mounting Bracket 304 SST (Flat form)</p> <p>-Q1 option Safety Transmitter</p> <p>R1 option Custom Calibration</p> <p>T2 option MILL Certificate</p> <p>T4 option Traceability Certificate (included Test Report)</p> <p>99 Special 3" ANSI 300# Large Tongue Face (ASME B16.5 - 2003)</p>
	<p>(1) TAG. No.: B-PT-4209</p> <p>Calibration Range: -100 to 0 kPa</p> <p>Indicator Scale: -100 to 0 kPa</p>

DIMENSIONAL DRAWING

UNIT : mm

See attached page for process connection dimensions



STANDARD SPECIFICATIONS

- Power Supply : DC17.9~42V
- Load Resistance : 250 Ω at DC17.9V
: 1345 Ω at DC42V
- Output Signal : DC4~20mA
- Electronic Housing Structure : Water-proof and Dust-proof structure
: JIS C0920 Immersion-Proof Structure
: JIS F8001 Class 2 Water-tight Construction
: NEMA 3 and 4X Equiv. IEC IP67 Equiv.
- Finish : See Spec. List
- Installation : Process connection flanged to vessel.
: Transmitter body fixed to horizontal or vertical 2" pipe.
- Mass (Weight) : Approx. 12.5kg (ANSI 150-2B, capillary length 5m)

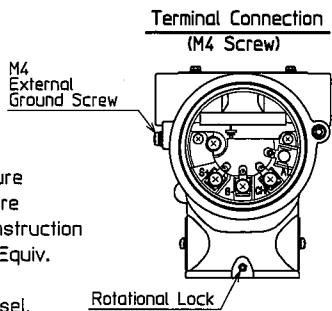


TABLE 1 : Terminal Connection

SYMBOL	DETAILS
S+	POWER SUPPLY AND OUTPUT SIGNAL+
S-	POWER SUPPLY AND OUTPUT SIGNAL- / CHECK METER-
CHK/AL	CHECK METER+
⊥	GROUND

TABLE 2 : Terminal Connection (Option "07" : Alarm Output)

SYMBOL	DETAILS
S+	POWER SUPPLY AND OUTPUT SIGNAL+
S-	POWER SUPPLY AND OUTPUT SIGNAL-
CHK/AL	ALARM+
⊥	GROUND/ALARM-

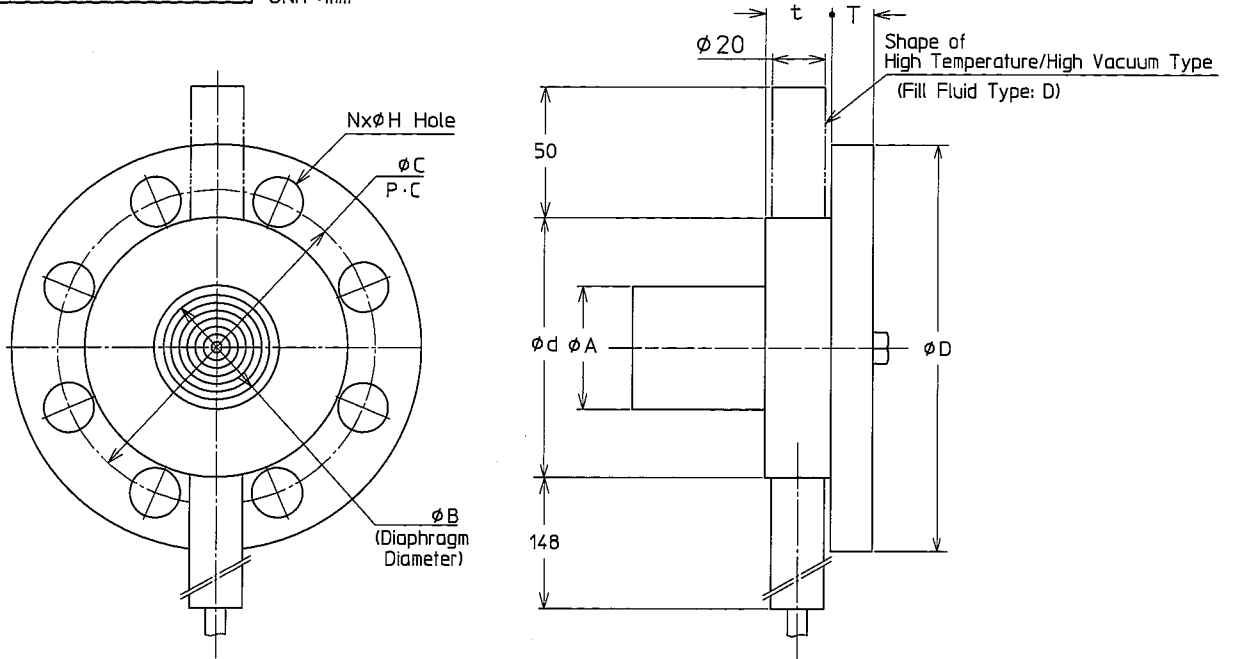
- ▨ Process Connection Dimensional Drawings
- ➡ Flush Flange ED-526508-2
- ➡ Extended Flange ED-526508-3
- ➡ Small Flange ED-526508-4
- ➡ Flush Flange (Diaphragm t=0.1) ED-526508-5
- ➡ Extended Flange (Diaphragm t=0.1) ED-526508-6
- ➡ 2" Wafer ED-526509-2
- ➡ G1-1/2" Button Diaphragm ED-526509-3

- Note 1) Capillary tube shall be fixed to protect it from damage due to vibration.
- 2) Choose gaskets that do not touch diaphragm after installation.

0	108-7-1	K. Y./I.I.	3		
1	108-10-6	K. Y./I.I.	4		
2	109-8-7	N. C./I.I.	5		

AT9000 ELECTRONIC GAUGE PRESSURE TRANSMITTER GTX (REMOTE SEALED TYPE)		MODEL NO. GTX 35U/60U/71U
Yamatake Corporation		DRAWING NO. ED-526509-1
DATE	JUL. 1. '08	REF.

DIMENSIONAL DRAWING UNIT : mm



Flange Dimensions

Selection Code		Description										
Flange Size	Flange Rating	Flange Size	Flange Rating	φD	T	φC	N	φH	φd	t	φA	φB
E	A1	2" (50A)	ANSI 150	152	19.5	120.6	4	19	99	25	47±1	43
	A2		ANSI 300	165	22.5	127	8	19				
	A3		ANSI 600	165	25.5	127	8	19				
	P1		JPI 150	152	19.5	120.6	4	19				
	P2		JPI 300	165	22.5	127	8	19				
	P3		JPI 600	165	25.5	127	8	19				
	J1		JIS 10K	155	16	120	4	19				
	J3		JIS 20K	155	18	120	8	19				
	J4		JIS 30K	165	22	130	8	19				
	J6		JIS 63K	185	34	145	8	23				
F	A1	3" (80A)	ANSI 150	190	24	152.4	4	19	129.5	25	69±1	62
	A2		ANSI 300	210	28.5	168.1	8	22				
	A3		ANSI 600	210	32	168.1	8	22				
	P1		JPI 150	190	24	152.4	4	19				
	P2		JPI 300	210	28.5	168.1	8	22				
	P3		JPI 600	210	32	168.1	8	22				
	J1		JIS 10K	185	18	150	8	19				
	J3		JIS 20K	200	22	160	8	23				
	J4		JIS 30K	210	28	170	8	23				
	J6		JIS 63K	230	40	185	8	25				
G	A1	4" (100A)	ANSI 150	229	24	190.5	8	19	157	23	95±1	90.4
	A2		ANSI 300	254	32	200.2	8	22				
	A3		ANSI 600	273	38.5	215.9	8	26				
	P1		JPI 150	229	24	190.5	8	19				
	P2		JPI 300	254	32	200.2	8	22				
	P3		JPI 600	273	38.5	215.9	8	26				
	J1		JIS 10K	210	18	175	8	19				
	J3		JIS 20K	225	24	185	8	23				
	J4		JIS 30K	240	32	195	8	25				

Extended Length L

Code	L
B	50
C	100
D	150
E	200
F	250
G	300

Flange Standard : ASME/ANSI B16.5 (1988)
 JPI-7S-15-93
 JIS B2220 (2004)

Note 1) Choose gaskets that do not touch diaphragm after installation.

AT9000 PROCESS CONNECTION OF REMOTE SEALED TYPE
 GTX (EXTENDED FLANGE)

MODEL NO.
 EXTENDED FLANGE

Yamatake Corporation

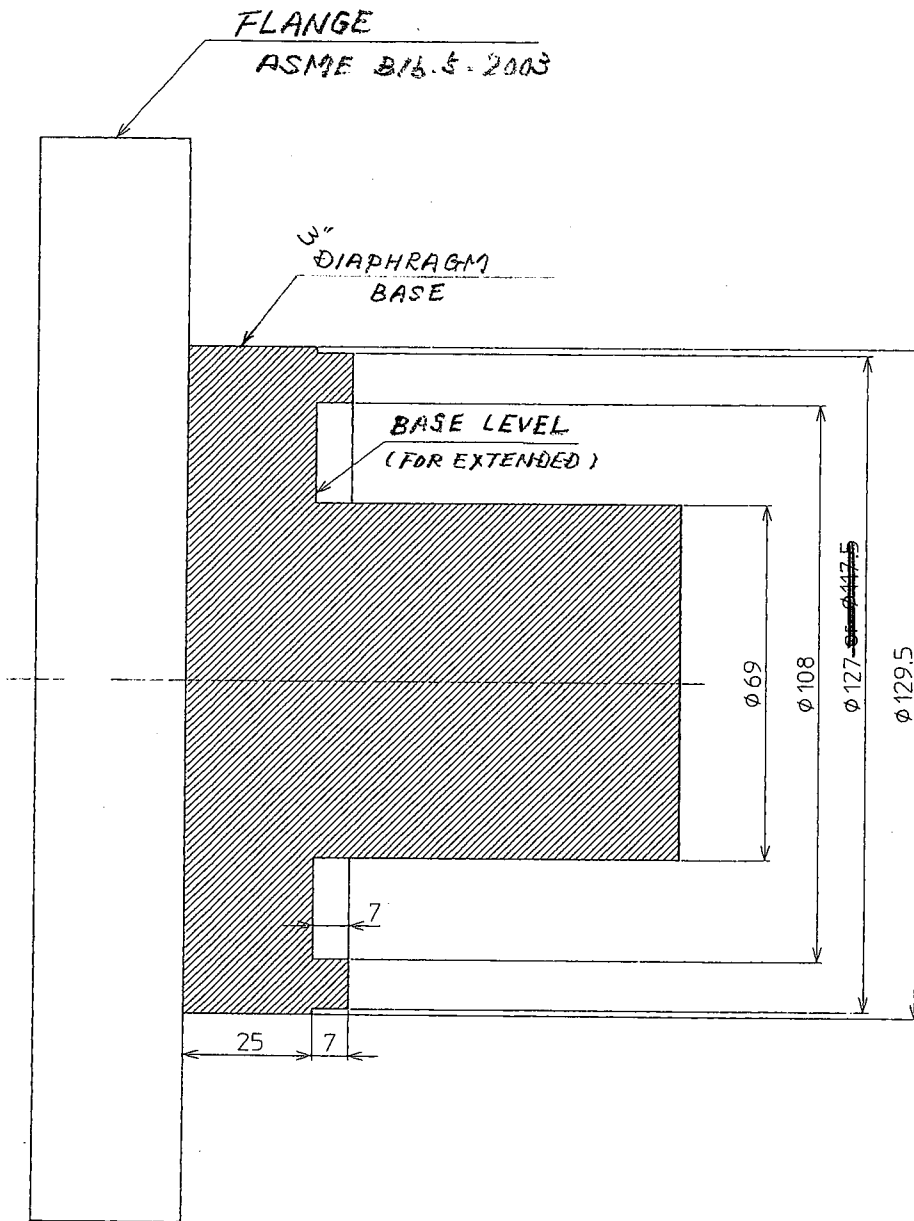
DATE JUL. 1. 08
 REF.

DRAWING NO.
 ED-526508-3

0	08-7-1	K.Y / I.I.	3	.	.
1	09-8-7	N.C / I.I.	4	.	.
2	.	.	5	.	.

EXTENDED FLANGE

8A



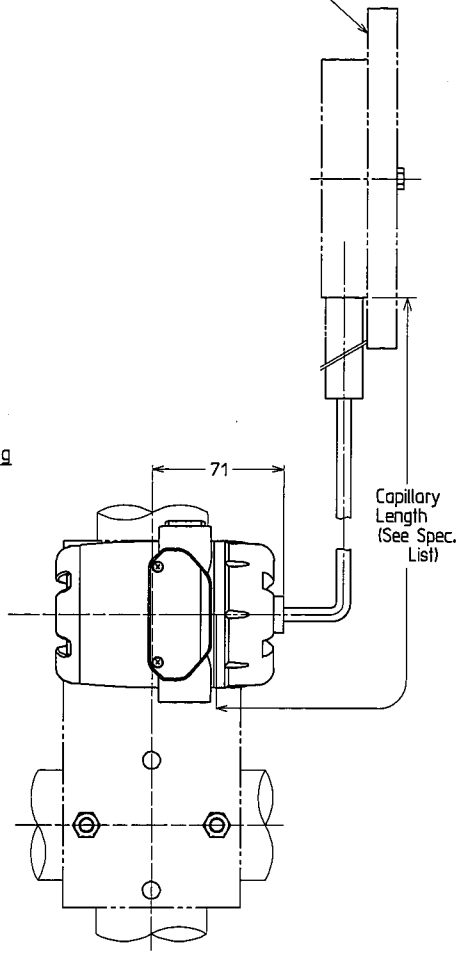
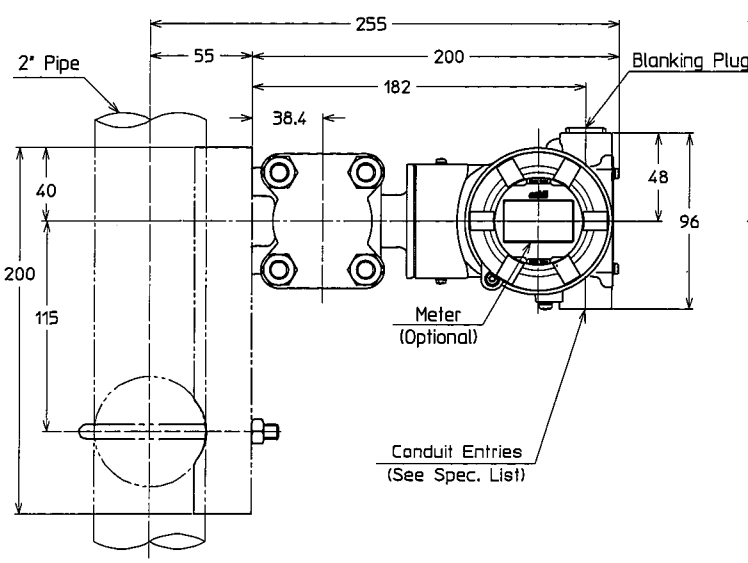
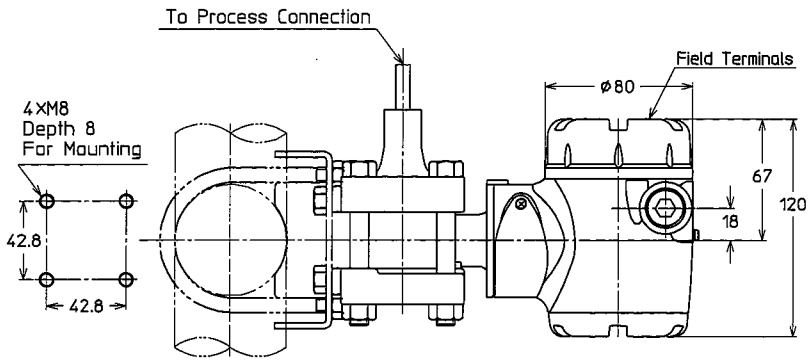
REFERENCE

ITEM No.	MODEL / NAME / SPECIFICATION
9	<p>MODEL GTX35UZ-BAAA2GAEF05-BA1ABB6-Q1R1T2T499</p> <p>NAME AT9000 Advanced Transmitter/Remote-seal differential pressure type</p> <p>GTX35U Measuring span 2.5 to 100 kPa (250 to 10,160 mmH2O)</p> <p>-B output 4 to 20mA (HART Communication)</p> <p>A Fill fluid Regular type</p> <p>A Wetted parts Material 316 SST (Diaphragm: 316L SST)</p> <p>A2 Flange Rating ANSI300</p> <p>G Flange Size 4in./100mm</p> <p>A Flange type Flush type</p> <p>E Flange Material/Bolt and Nut Material 316 SST/304 SST</p> <p>F Gasket face finish T & G (T)</p> <p>05 Capillary Length 5m</p> <p>-B Electrical Connection M20, Watertight</p> <p>A1 Explosion proof ATEX Explosionproof</p> <p>A Indicator with Indicator</p> <p>B Paint Corrosion-proof</p> <p>B Failure Alarm Lower Limit of output at abnormal Condition</p> <p>6 Mounting Bracket 304 SST (Flat form)</p> <p>-Q1 option Safety Transmitter</p> <p>R1 option Custom Calibration</p> <p>T2 option MILL Certificate</p> <p>T4 option Traceability Certificate (included Test Report)</p> <p>99 Special 3" ANSI 300# Large Tongue Face (ASME B16.5 - 2003)</p> <p>Code Z Special 4" Flange with Steam Trace</p>
	<p>(1) TAG. No.: B-PT-7071</p> <p>Calibration Range: 0 to 10 kPa</p> <p>Indicator Scale: 0 to 10 kPa</p>

DIMENSIONAL DRAWING

UNIT : mm

See attached page for process connection dimensions



STANDARD SPECIFICATIONS

- Power Supply : DC17.9~42V
- Load Resistance : 250 Ω at DC17.9V
: 1345 Ω at DC42V
- Output Signal : DC4~20mA
- Electronic Housing Structure : Water-proof and Dust-proof structure
: JIS C0920 Immersion-Proof Structure
: JIS F8001 Class 2 Water-tight Construction
: NEMA 3 and 4X Equiv. IEC IP67 Equiv.
- Finish : See Spec. List
- Installation : Process connection flanged to vessel.
: Transmitter body fixed to horizontal or vertical 2" pipe.
- Mass (Weight) : Approx. 12.5kg (ANSI 150-2B, capillary length 5m)

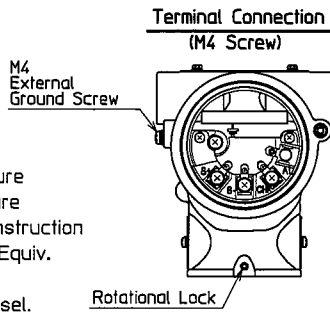


TABLE 1 : Terminal Connection

SYMBOL	DETAILS
S+	POWER SUPPLY AND OUTPUT SIGNAL+
S-	POWER SUPPLY AND OUTPUT SIGNAL- / CHECK METER-
CHK/AL	CHECK METER+
⊥	GROUND

TABLE 2 : Terminal Connection (Option *Q7* : Alarm Output)

SYMBOL	DETAILS
S+	POWER SUPPLY AND OUTPUT SIGNAL+
S-	POWER SUPPLY AND OUTPUT SIGNAL-
CHK/AL	ALARM+
⊥	GROUND/ALARM-

- Note 1) Capillary tube shall be fixed to protect it from damage due to vibration.
2) Choose gaskets that do not touch diaphragm after installation.

- Process Connection Dimensional Drawings
- Flush Flange ED-526508-2
- Extended Flange ED-526508-3
- Small Flange ED-526508-4
- Flush Flange (Diaphragm t=0.1) ED-526508-5
- Extended Flange (Diaphragm t=0.1) ED-526508-6
- 2" Wafer ED-526509-2
- G1-1/2" Button Diaphragm ED-526509-3
- Special ! Jacket type flange*

REFERENCE

AT9000 ELECTRONIC GAUGE PRESSURE TRANSMITTER GTX (REMOTE SEALED TYPE)

MODEL NO. GTX 35U/60U/71U

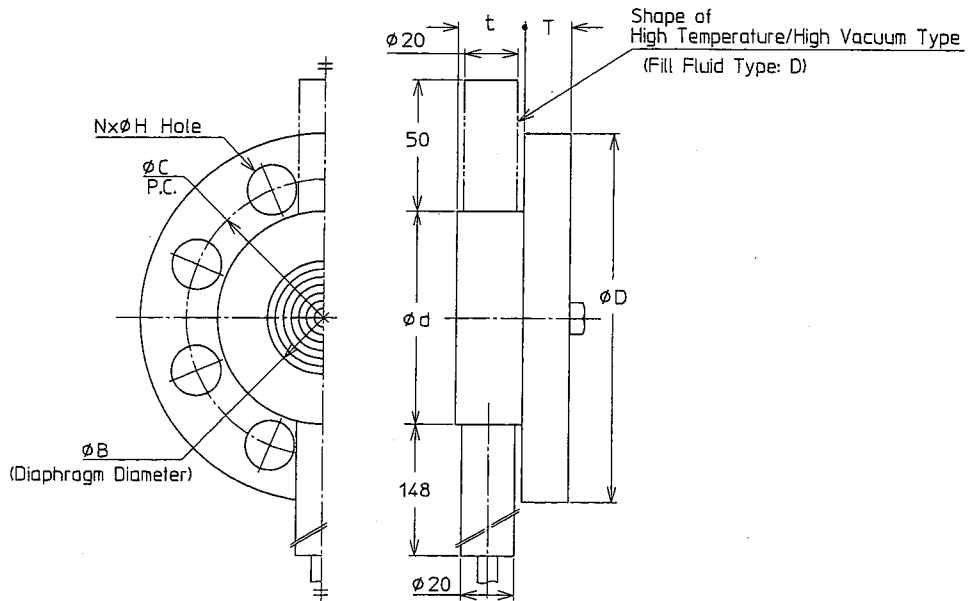
Yamatake Corporation

DATE JUL. 1. '08
REF.

DRAWING NO. ED-526509-1

0	08-7-1	K. Y./I.I.	3	.	.
1	08-10-6	K. Y./I.I.	4	.	.
2	09-8-7	N. C./I.I.	5	.	.
REV					

DIMENSIONAL DRAWING UNIT : mm



Flange Dimensions

Selection Code		Description		øD	T	øC	N	øH	ød			
Flange Size	Flange Rating	Flange Size	Flange Rating									
D	A1	1-1/2" (40A)	ANSI 150	127	18	98.6	4	16	81			
	A2		ANSI 300	155	25	114.3	4	22				
	A3		ANSI 600	155	32	114.3	4	22				
	P1		JPI 150	127	18	98.6	4	16				
	P2		JPI 300	155	25	114.3	4	22				
	P3		JPI 600	155	32	114.3	4	22				
	J1		JIS 10K	140	18	105	4	19				
	J3		JIS 20K	140	18	105	4	19				
	J4		JIS 30K	160	25	120	4	23				
	J6		JIS 63K	175	32	130	4	25				
	E		A1	2" (50A)	ANSI 150	152	19.5	120.6		4	19	99
			A2		ANSI 300	165	22.5	127		8	19	
A3		ANSI 600	165		25.5	127	8	19				
P1		JPI 150	152		19.5	120.6	4	19				
P2		JPI 300	165		22.5	127	8	19				
P3		JPI 600	165		25.5	127	8	19				
J1		JIS 10K	155		16	120	4	19				
J3		JIS 20K	155		18	120	8	19				
J4		JIS 30K	165		22	130	8	19				
J6		JIS 63K	185		34	145	8	23				
F		A1	3" (80A)		ANSI 150	190	24	152.4	4	19	129.5	
		A2			ANSI 300	210	28.5	168.1	8	22		
	A3	ANSI 600		210	32	168.1	8	22				
	P1	JPI 150		190	24	152.4	4	19				
	P2	JPI 300		210	28.5	168.1	8	22				
	P3	JPI 600		210	32	168.1	8	22				
	J1	JIS 10K		185	18	150	8	19				
	J3	JIS 20K		200	22	160	8	23				
	J4	JIS 30K		210	28	170	8	23				
	J6	JIS 63K		230	40	185	8	25				
	G	A1		4" (100A)	ANSI 150	229	24	190.5	8	19		129.5
		A2			ANSI 300	254	32	200.2	8	22		
A3		ANSI 600	273		38.5	215.9	8	26				
P1		JPI 150	229		24	190.5	8	19				
P2		JPI 300	254		32	200.2	8	22				
P3		JPI 600	273		38.5	215.9	8	26				
J1		JIS 10K	210		18	175	8	19				
J3		JIS 20K	225		24	185	8	23				
J4		JIS 30K	240		32	195	8	25				

Diaphragm Diameter

Selection Code		Description		øB	t
Flange Size	Wetted Parts	Flange Size	Wetted Parts		
D	A,C,D	1 1/2" (40A)	SUS316 Tantalum SUS316L	43	25
	B		ASTM B575 (Hastelloy C-276 Equivalent)		26.7
E	A,C,D	2" (50A)	SUS316 Tantalum SUS316L	62	25
	B		ASTM B575 (Hastelloy C-276 Equivalent)		26.7
F	A,B,C,D	3" (80A)	SUS316 ASTM B575 Tantalum SUS316L	95	25

0	08-7-1	K.Y / I.I.	3	...
1	08-7-3	K.Y / I.I.	4	...
2	09-8-7	N.C / I.I.	5	...
REV	6	7	8	...

Note 1) Choose gaskets that do not touch diaphragm after installation.

AT9000 PROCESS CONNECTION OF REMOTE SEALED TYPE GTX (FLUSH FLANGE)

MODEL NO. FLUSH FLANGE

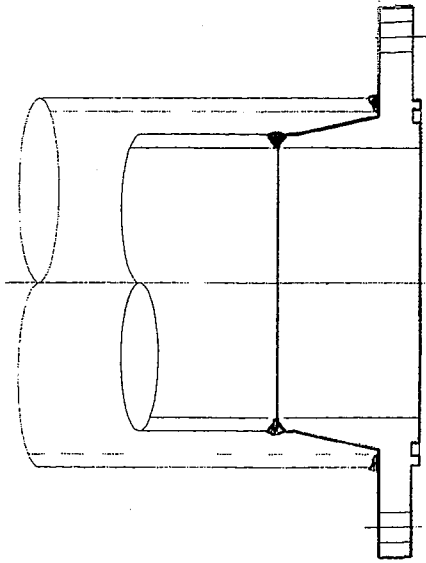
Yamatake Corporation

DATE JUL . 1 . 08
REF. 80372524
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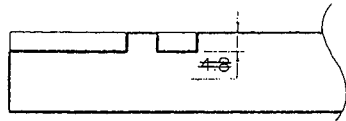
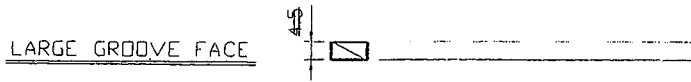
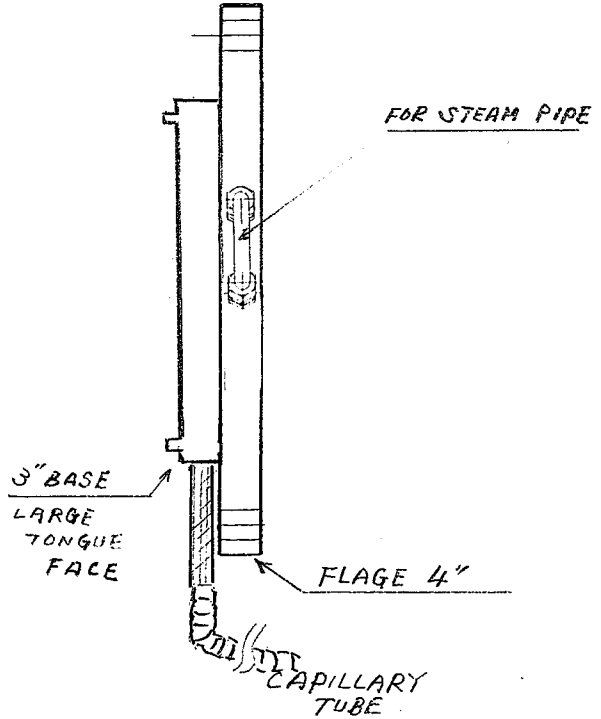
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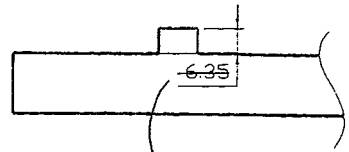
FLANGE FOR JACKETED PIPING ASME B16.5 (Large Tongue & Groove Face) / Class 300						
						PAGE:



TRANSMITTER

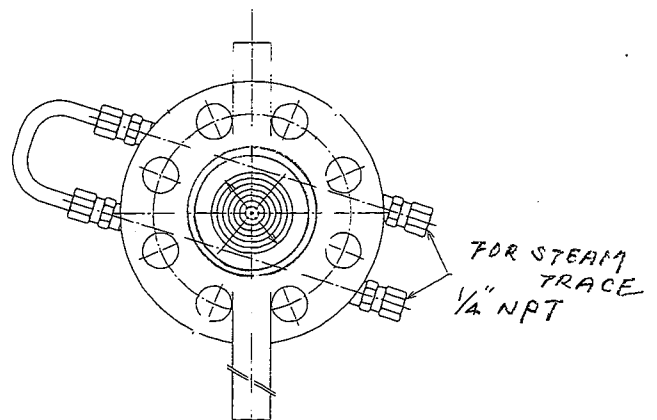


LARGE TONGUE FACE



7.0 mm

ASME B16.5-2003



REFERENCE