



AUTROL®

Smart Pressure Transmitter with Diaphragm Seal



MODEL

APT 3100L



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Smart Pressure Transmitter with Diaphragm Seal

APT3100L

Description of Product

The APT-3100L Smart Pressure Transmitter is a micro processor-based high performance transmitter, which has flexible pressure calibration and output, automatic compensation of ambient temperature and process variable, configuration of various parameters, communication with HART protocol. All Data of Sensor(Tag No., Type, Range) is to be input, modified and stored in EEPROM.

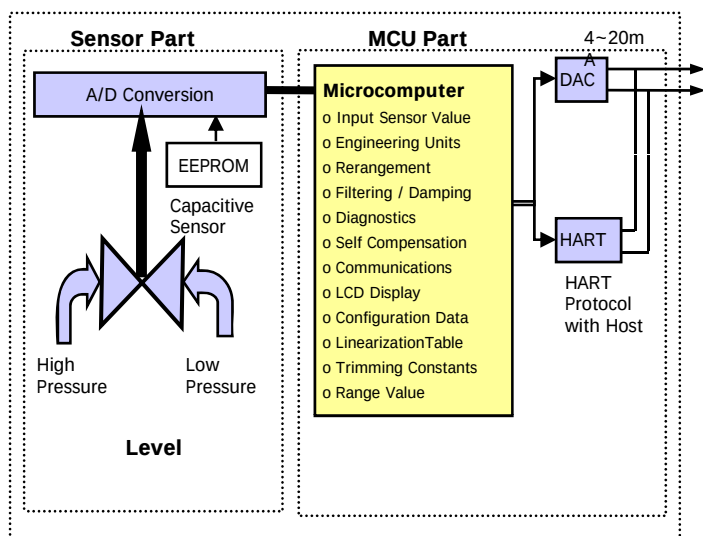
Function

- Flexible Sensor input : Measuring hydrostatic pressure head and transmitting liquid level
- Various output: 4 ~20mA(Analog), Digital Signals
- Automatic Compensation of Ambient Temperature
- Setting Various Parameters : Zero/Span, Fail-mode, Unit, Trim, etc.
- Self Diagnostic Function : Sensor, A/D Converter, Memory, Power, etc
- Digital Communication with HART protocol, Command.
- Explosion-proof Approval & Intrinsic Safety Approval : KOSHA, KTL, CSA, FM, ATEX

Features

- Superior Performance
 - High Reference Accuracy : $\pm 0.075\%$ of Calibrated Span (without seal)
 - Long-Term Stability
 - High Rangeability (100 : 1)
- Flexibility
 - Data Configuration with HART Configurator
 - Zero Point Adjustment
- Reliability
 - Continuous Self-Diagnostic Function
 - Automatic Ambient Temperature Compensation
 - Fail-mode Process Function
 - EEPROM Write Protection
 - CE EMC Conformity Standards (EN50081-2, EN50082-2)

Functional Block Diagram



Type of Sensor & Configure Tools

- Selection of Various Pressure
 - Using Capacitive Pressure Sensor
 - Screw type. Diaphragm Seal as to Process Connection method
 - User can select measuring sensor for DP, GP.
- Transmitter Output
 - Analog : 4 ~ 20mA DC
 - Digital : HART Digital Data.
- Configure Tools
 - Hand-Held Terminal : portable use in job-site, convenient input, change, review, up-down loading
 - The Configurator Software Package can be loaded on PC for users convenience

Smart Transmitter with Diaphragm Seal

General Specifications

1. Diaphragm Sealed Sensor Range (Rangeability : 20 : 1)

Class	Code	mmH2O	KPa
Low Level	4	0 ~ 194 to 0 ~ 3800	0 ~ 1.9 to 0 ~ 37.3
Medium Level	5	0 ~ 960 to 0 ~ 19000	0 ~ 9.4 to 0 ~ 186.5
High Level	6	0 ~ 3518 to 0 ~ 70000	0 ~ 34.5 to 0 ~ 690

2. Electrical Specifications

Power Supply	11.9 ~ 45 V dc	Output Signal	4 ~ 20 mA dc /HART
HART loop resistance	250 ~ 550 ohm	Isolation	500 Vrms (707V DC)
Update Time	0.25 Sec.	Turn-on Time	5 Sec.

3. Performance Specifications (without seal)

Reference Accuracy	$\pm 0.075\%$ of Span ($0.2URL \leq \text{Span} \leq URL$)	Operating Temp.	-40 ~ +85 °C
	$\pm [0.05 + 0.005 \times (URL/\text{Span})]\%$ of Span ($0.05URL \leq \text{Span} < 0.2URL$)	LCD Meter Operating Temp.	-30 ~ +80 °C
		Humidity Limits	5% ~ 98% RH
Ambient Temp. Effect	$\pm [0.025\% URL + 0.125\% \text{ Span}] / 28\text{ }^{\circ}\text{C}$	Process Temp. Limit	-40 ~ +205 °C
Stability	$\pm 0.1\%$ URL for 12 Months	Power Supply Effects	$\pm 0.005\%$ of Span per Volt
Static Pressure Effects	$\pm 0.1\%$ of URL per 7MPa (Zero Error) $\pm 0.2\%$ of Reading per 7MPa (Span Error)	Mounting Position Effects	• Zero Shift up to 350Pa • No Span Effect

4. Physical Specifications

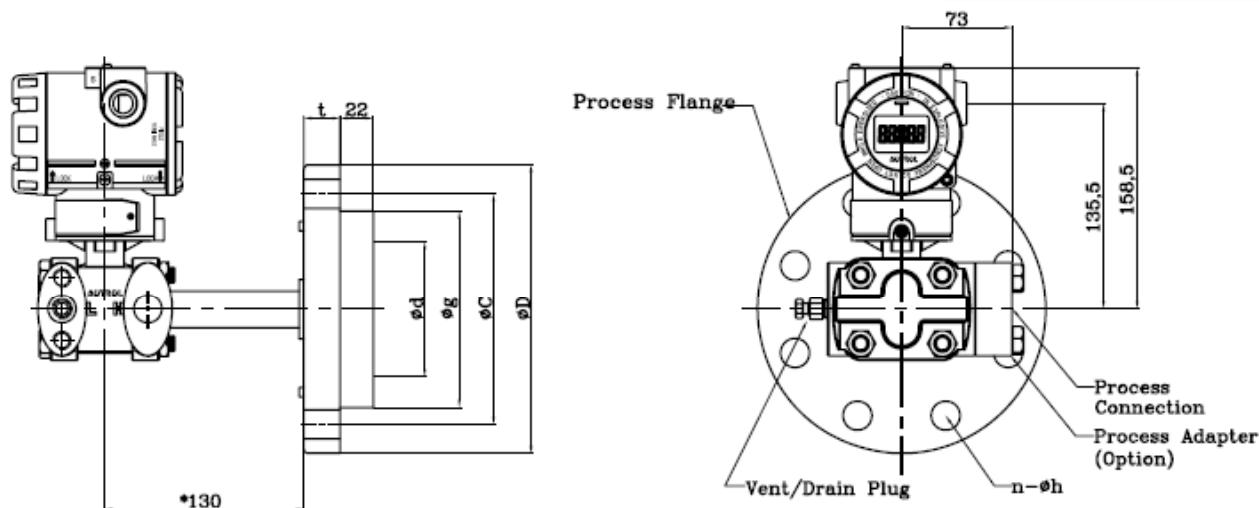
Isolating Diaphragm	316L SST	Process Connection Size	1/2" - 14 NPT
Drain & Vent Valve	316 SST	Diaphragm Seal(Flush/Extended)	2" or 3" / 3" or 4"
Flange & Adapter	316 SST	Electrical Connections	1/2" - 14 NPT with M4
O-ring	Viton, PTFE	Weight (only transmitter)	3.9 Kg
Electronic Housing	Aluminum	2" Pipe Stanchion Type bracket	Angle or Flat type
Bolts & Bolting Flange	304 SST	Housing Class	Waterproof (IP67)

5. Hazardous Location Certifications - Option

Korea Standards Approval	Overseas Standards Approval
Flameproof Approval : Ex d IIC T6 (KOSHA) Intrinsic Safety Approval : Ex ia IIC T5 (KTL)	CSA Explosion proof Approval FM Explosion proof Approval ATEX Flame proof Approval

Dimensional Drawing (mm)

For Flush Diaphragm Seal and Direct Mount Type Transmitter



Flange Size : 80mm (3 inch)

Unit : mm

Flange Rating	Mb	D	b	d2	k	f	d4	x
ANSI Class150	89	190	24	20	152.5	2	127	4
ANSI Class300		210	29	22	168.5		127	8
JIS 10K	89	185	18	19	150	2	126	8
JIS 20K		200	22	23	160		132	
DIN PN 10/16	89	200	20	18	160	2	138	8
DIN PN 25/40			24					

Flange Size : 50mm (2 inch)

Unit : mm

Flange Rating	Mb	D	b	d2	k	f	d4	x
ANSI Class150	59	150	20	20	120.5	2	92	4
ANSI Class300		165	22.5		127			8
JIS 10K	59	155	16	19	120	2	96	4
JIS 20K			18					8
DIN PN 10/16	59	165	20	18	125	2	102	4
DIN PN 25/40								

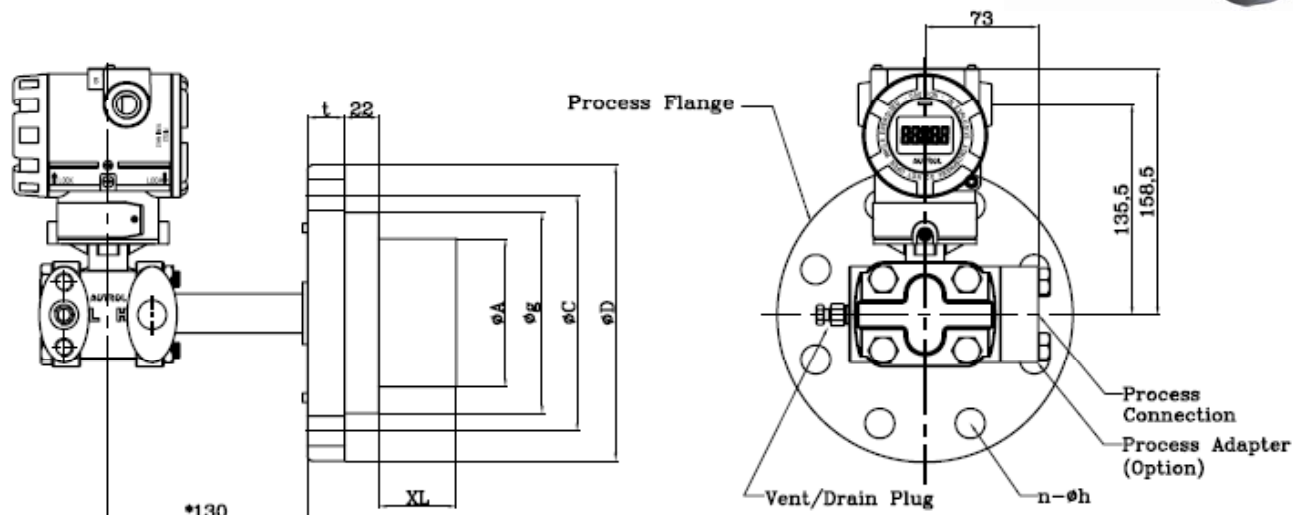
Ordering Information

MODEL NO.	Code	Description			
APT3100	LFD	Flush Diaphragm Seal and Direct Mount Type Transmitter			
Ranges	4	0-194 to 0-3800mmH2O (0-1.9 to 0-37.3 KPa)			
	5	0-960 to 0-19000mmH2O (0-9.4 to 0-186.5 KPa)			
	6	0-3518 to 0-70000mmH2O (0-34.5 to 0-690 KPa)			
	x	Special			
Mounting Flange Size/Material	C2	2-inch (50mm)	C.Steel		
	S2	2-inch (50mm)	SST		
	C3	3-inch (80mm)	C.Steel		
	S3	3-inch (80mm)	SST		
	XX	Special			
Mounting Flange Rating	A1	ANSI Class 150			
	A2	ANSI Class 300			
	J1	JIS 10K			
	J2	JIS 20K			
	D1	DIN PN 10/16			
	D2	DIN PN 25/40			
	XX	Special			
Wetted Parts Material Diaphragm/Others		DIAPHRAGM		OTHERS	
	S	316L SST		316L SST	
	PT	PTFE + 316L SST		316L SST	
	H	Hastelloy C-276		316L SST	
	T	Tantalum		316L SST	
	X	Special		Special	
Fill Fluid		FILL FLUID		TEMPERATURE LIMITS	
	2	D.C Silicone 200		-40 to 205 °C (-40 to 400 °F)	
	7	D.C Silicone 704		15 to 205 °C (60 to 400 °F)	
	X	Special			
Materials of Construction		FLANGE		VENT/DRAIN VALVE	
	CS	C.Steel		316 SST	
	SS	316 SST		316 SST	
Low Side	W	without Process Adapter (1/4-18 NPT on the cover flange)			
	N	with 1/2-14 NPT Process Adapter (316 SST)			
	X	Special			
Electrical Connection		ELECTRICAL CONNECTION		MATERIAL	
	1	1/2-14NPT		Epoxy Coated-Aluminum	
	2	G1/2		Epoxy Coated-Aluminum	
	X	Special			
Hazardous Locations Certifications (Option)	K0	Maker Standard (Waterproof : IP67)			
	K1	KOSHA Flameproof Approval : Ex d IIC T6.			
	K2	KTL Intrinsic Safety Approval : Ex ia IIC			
	E1	ATEX(KEMA) Flameproof			
	*E2	ATEX(KEMA) Intrinsic Safety			
	C1	CSA Explosion proof			
	*C2	CSA Intrinsic Safety			
	F1	FM Explosion proof			
	*F2	FM Intrinsic Safety			
	M1	LCD Indicator	LP	Lighting Protector	
	W	SUS 304 Bolts and Nuts	ET	External Terminal Block	
	C6	Engineering Unit			
	K	Oil Free Finish			
	X	Special Order			

Note 1 : Request to manufacturer for Draft Range, Absolute (small pressure and vacuum) and Items marked “*” before order.

Dimensional Drawing (mm)

For Extended Diaphragm Seal and Direct Mount Type Transmitter



Flange Size : 80mm (3 inch)

Unit : mm

Flange Rating	Mb	D	b	d2	k	f	d4	d5	x
ANSI Class150	72	190	24	20	152.5	1.6	127	76	4
ANSI Class300		210	29	22	168.5				8
JIS 10K	72	185	18	19	150	2	126	76	8
JIS 20K		200	22	23	160		132		
DIN PN 10/16	72	200	20	18	160	2	138	76	8
DIN PN 25/40			24						

Flange Size : 50mm (2 inch)

Unit : mm

Flange Rating	Mb	D	b	d2	k	f	d4	d5	x
ANSI Class150	47	150	20	20	120.5	2	92	48.3	4
ANSI Class300		165	22.5		127				8
JIS 10K	47	155	16	19	120	2	96	48.3	4
JIS 20K			18						8
DIN PN 10/16	47	165	20	18	125	2	102	48.3	4
DIN PN 25/40									

Diaphragm Extension Length Code	R _L
5	50mm (2 inch)
10	100mm (4 inch)
15	150mm (6 inch)

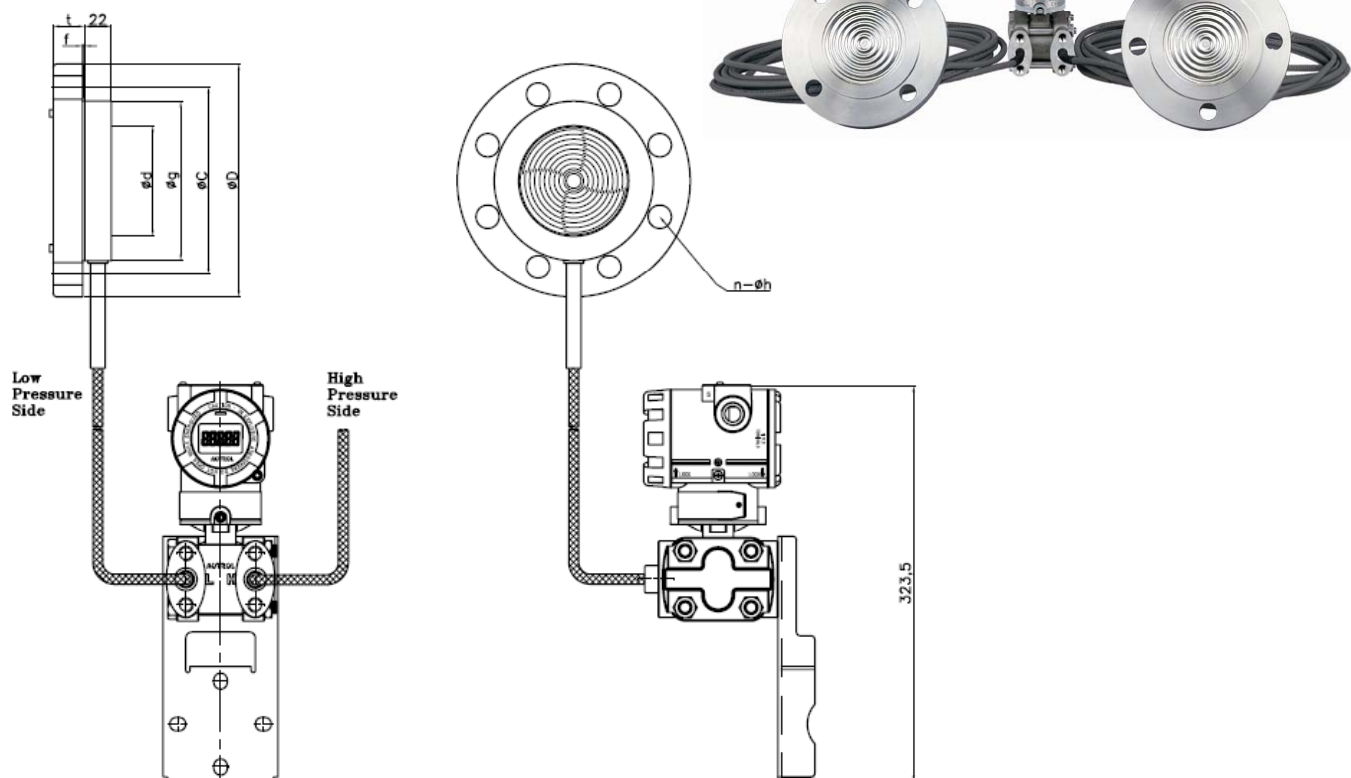
Ordering Information

MODEL NO.	Code	Description	
APT3100	- LED	Extended Diaphragm Seal and Direct Mount Type Transmitter	
Range	4	0-194 to 0-3800mmH ₂ O (0-1.9 to 0-37.3 KPa)	
	5	0-960 to 0-19000mmH ₂ O (0-9.4 to 0-186.5 KPa)	
	6	0-3518 to 0-70000mmH ₂ O (0-34.5 to 0-690 KPa)	
	X	Special	
Mounting Flange Size/Material	C2	2-inch (50mm)	C.Steel
	S2	2-inch (50mm)	SST
	C3	3-inch (80mm)	C.Steel
	S3	3-inch (80mm)	SST
	XX	Special	
Mounting Flange Rating	A1	ANSI Class 150	
	A2	ANSI Class 300	
	J1	JIS 10K	
	J2	JIS 20K	
	D1	DIN PN 10/16	
	D2	DIN PN 25/40	
	XX	Special	
Extension Length	05	50mm (2in.)	
	10	100mm (4in.)	
	15	150mm (6in.)	
	XX	Special	
Wetted Parts Material Diaphragm/Others		DIAPHRAGM	OTHERS
	S	316L SST	316L SST
	PT	PTFE +316L SST	316L SST
	H	Hastelloy C-276	316L SST
	T	Tantalum	316L SST
	X	Special	Special
Fill Fluid		FILL FLUID	TEMPERATURE LIMITS
	2	D.C Silicone 200	-40 to 205 °C (-40 to 400 °F)
	7	D.C Silicone 704	15 to 205 °C (60 to 400 °F)
	X	Special	
Materials of Construction		FLANGE	VENT/DRAIN VALVE
	CS	Plated C.Steel	316 SST
	SS	316 SST	316 SST
Low Side	W	without Process Adapter (1/4-18 NPT on the cover flange)	
	N	with 1/2-14 NPT Process Adapter (316 SST)	
	X	Special	
Electrical Connection		ELECTRICAL CONNECTION	MATERIAL
	1	1/2-14NPT	Epoxy Coated-Aluminum
	2	G1/2	Epoxy Coated-Aluminum
	X	Special	
Hazardous Locations Certifications	K0	Maker Standard (Waterproof : IP67)	
	K1	KOSHA Flameproof Approval : Ex d IIC T6.	
	K2	KTL Intrinsic Safety Approval : Ex ia IIC	
	E1	ATEX(KEMA) Flameproof	
	*E2	ATEX(KEMA) Intrinsic Safety	
	C1	CSA Explosion proof	
	*C2	CSA Intrinsic Safety	
	F1	FM Explosion proof	
	*F2	FM Intrinsic Safety	
Option	M1	LCD Indicator	LP Lighting Protector
	W	SUS 304 Bolts and Nuts	ET External Terminal Block
	C6	Engineering Unit	
	K	Oil Free Finish	
	X	Special Order	

Note 1 : Request to manufacturer for Draft Range, Absolute (small pressure and vacuum) and Items marked " * " before order.

Dimensional Drawing (mm)

For Flush Diaphragm Seal and Capillary Type Transmitter



Flange Size : 80mm (3 inch)

Unit : mm

Flange Rating	Mb	D	b	d2	k	f	d4	x
ANSI Class150	89	190	24	20	152.5	2	127	4
ANSI Class300		210	29	22	168.5		127	8
JIS 10K	89	185	18	19	150	2	126	8
JIS 20K		200	22	23	160		132	
DIN PN 10/16	89	200	20	18	160	2	138	8
DIN PN 25/40			24					

Flange Size : 50mm (2 inch)

Unit : mm

Flange Rating	Mb	D	b	d2	k	f	d4	x
ANSI Class150	59	150	20	20	120.5	2	92	4
ANSI Class300		165	22.5		127			8
JIS 10K	59	155	16	19	120	2	96	4
JIS 20K			18					8
DIN PN 10/16	59	165	20	18	125	2	102	4
DIN PN 25/40								

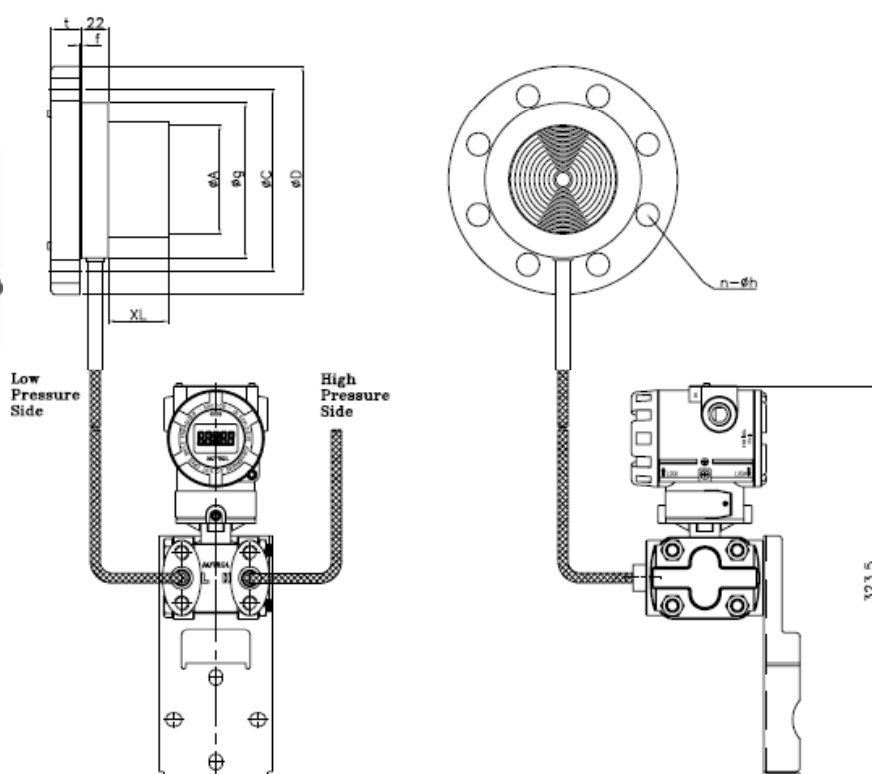
Ordering Information

MODEL NO.	Code	Description	
APT3100	- LFC	Flush Diaphragm Seal and Capillary Type Transmitter (Two remote Seal)	
Ranges	4	0-194 to 0-3800mmH2O (0-1.9 to 0-37.3 KPa)	
	5	0-960 to 0-19000mmH2O (0-9.4 to 0-186.5 KPa)	
	6	0-3518 to 0-70000mmH2O (0-34.5 to 0-690 KPa)	
	X	Special	
Mounting Flange Size/Material	C2	50mm (2-inch)	C.Steel
	S2	50mm (2-inch)	SST
	C3	80mm (3-inch)	C.Steel
	S3	80mm (3-inch)	SST
	XX	Special	
Mounting Flange Rating	A1	ANSI Class 150	
	A2	ANSI Class 300	
	J1	JIS 10K	
	J2	JIS 20K	
	D1	DIN PN 10/16	
	D2	DIN PN 25/40	
Wetted Parts Material Diaphragm/Others	XX	Special	
		DIAPHRAGM	OTHERS
	S	316L SST	316L SST
	PT	PTFE + 316L SST	316L SST
	H	Hastelloy C-276	316L SST
	T	Tantalum	316L SST
Fill Fluid	X	Special	Special
		FILL FLUID	TEMPERATURE LIMITS
	2	D.C Silicone 200	-40 ~ 205 °C (-40 ~ 400 °F)
	7	D.C Silicone 704	15 ~ 205 °C (60 ~ 400 °F)
Capillary Length (m)	X	Special	
	□□	Capillary Length from 1 to 12mm (Example for 3m : 03)	
Materials of Construction		FLANGE	VENT / DRAIN VALVE
	CS	Plated C.Steel	316 SST
	SS	316 SST	316 SST
Electrical Connection		ELECTRICAL CONNECTION	MATERIAL
	1	1/2-14NPT	Epoxy Coated-Aluminum
	2	G1/2	Epoxy Coated-Aluminum
	X	Special	
Hazardous Locations Certifications	K0	Maker Standard (Waterproof : IP67)	
	K1	KOSHA Flameproof Approval : Ex d IIC T6.	
	K2	KTL Intrinsic Safety Approval : Ex ia IIC	
	E1	ATEX (KEMA) Flameproof	
	*E2	ATEX (KEMA) Intrinsic Safety	
	C1	CSA Explosion proof	
	*C2	CSA Intrinsic Safety	
	F1	FM Explosion proof	
	*F2	FM Intrinsic Safety	
Option	M1	LCD Indicator	LP Lighting Protector
	W	SUS 304 Bolts and Nuts	ET External Terminal Block
	C6	Engineering Unit	
	K	Oil Free Finish	
	P	PVC Coating on SST Armored	
	BA	Stainless Steel Bracket (Angle type) with SST Bolts	
	BF	Stainless Steel Bracket (Flat type) with SST Bolts	
	CA	Painted Steel Mounting Bracket (Angle Type) with SST Bolts	
	CF	Painted Steel Mounting Bracket (Flat Type) with SST Bolts	
	X	Special Order	

Note 1 : Request to manufacturer for Draft Range, Absolute (small pressure and vacuum) and Items marked " * " before order.

Dimensional Drawing (mm)

For Extended Diaphragm Seal and Capillary Type Transmitter



Flange Size : 80mm (3 inch)

Unit : mm

Flange Rating	Mb	D	b	d2	k	f	d4	d5	x
ANSI Class150	72	190	24	20	152.5	1.6	127	76	4
ANSI Class300		210	29	22	168.5				8
JIS 10K	72	185	18	19	150	2	126	76	8
JIS 20K		200	22	23	160		132		
DIN PN 10/16	72	200	20	18	160	2	138	76	8
DIN PN 25/40			24						

Flange Size : 50mm (2 inch)

Unit : mm

Flange Rating	Mb	D	b	d2	k	f	d4	d5	x
ANSI Class150	47	150	20	20	120.5	2	92	48.3	4
ANSI Class300		165	22.5		127				8
JIS 10K	47	155	16	19	120	2	96	48.3	4
JIS 20K			18						8
DIN PN 10/16	47	165	20	18	125	2	102	48.3	4
DIN PN 25/40									

Diaphragm Extension Length Code	R _L
5	50mm (2 inch)
10	100mm (4 inch)
15	150mm (6 inch)

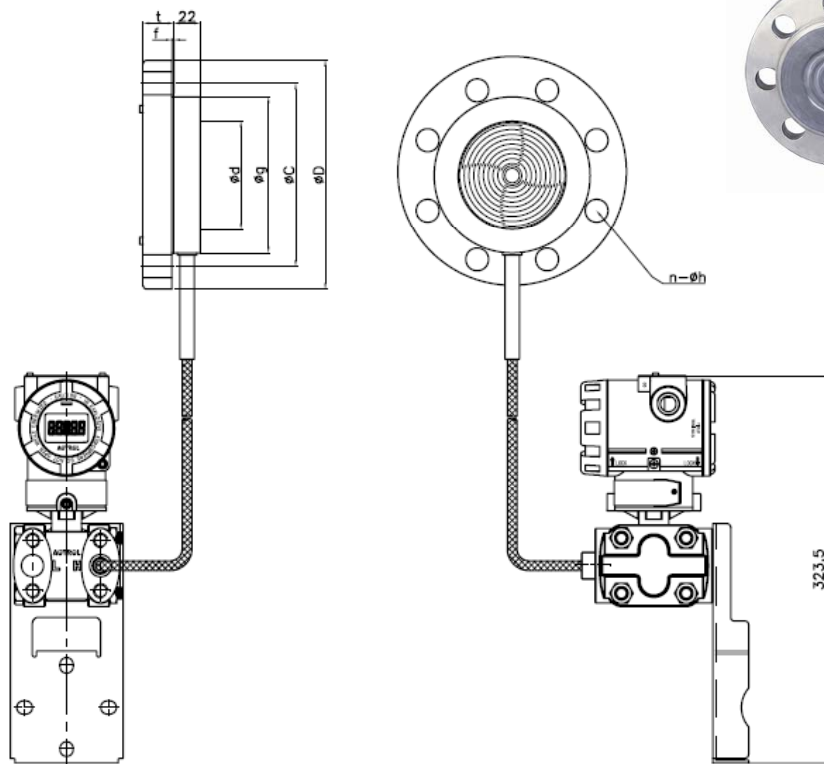
Ordering Information

MODEL NO.	Code	Description		
APT3100	- LEC	Extended Diaphragm Seal and Capillary Type Transmitter (Two Remote Seal)		
Ranges	4	0-194 to 0-3800mmH2O (0-1.9 to 0-37.3 kPa)		
	5	0-960 to 0-19000mmH2O (0-9.4 to 0-186.5 kPa)		
	6	0-3518 to 0-70000mmH2O (0-34.5 to 0-690 kPa)		
	X	Special		
Mounting Flange Size/Material	C2	50mm (2-inch)	C.Steel	
	S2	50mm (2-inch)	SST	
	C3	80mm (3-inch)	C.Steel	
	S3	80mm (3-inch)	SST	
	XX	Special		
Mounting Flange Rating	A1	ANSI Class 150		
	A2	ANSI Class 300		
	J1	JIS 10K		
	J2	JIS 20K		
	D1	DIN PN 10/16		
	D2	DIN PN 25/40		
	XX	Special		
Extension Length	5	50mm (2in.)		
	10	100mm (4in.)		
	15	150mm (6in.)		
	XX	Special		
Wetted Parts Material Diaphragm/Others		DIAPHRAGM	OTHERS	
	S	316L SST	316L SST	
	PT	PTFE + 316L SST	316L SST	
	H	Hastelloy C-276	316L SST	
	T	Tantalum	316L SST	
	X	Special	Special	
Fill Fluid		FILL FLUID	TEMPERATURE LIMITS	
	2	D.C Silicone 200	-40 ~ 205 ℃ (-40 ~ 400 ℉)	
	7	D.C Silicone 704	15 ~ 205 ℃ (60 ~ 400 ℉)	
	X	Special		
Capillary Length (m)	□□	Capillary Length from 1 to 12m (Example for 3m : 03)		
Materials of Construction		FLANGE	VENT / DRAIN VALVE	
	CS	Plated C.Steel	316 SST	
	SS	316 SST	316 SST	
Electrical Connection		ELECTRICAL CONNECTION	MATERIAL	
	1	1/2-14NPT	Epoxy Coated-Aluminum	
	2	G1/2	Epoxy Coated-Aluminum	
	X	Special		
Hazardous Locations Certifications	K0	Maker Standard (Waterproof : IP67)		
	K1	KOSHA Flameproof Approval : Ex d IIC T6.		
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	F1	FM Explosion proof		
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Option	M1	LCD Indicator	LP	Lighting Protector
	W	SUS 304 Bolts and Nuts	ET	External Terminal Block
	C6	Engineering Unit		
	K	Oil Free Finish		
	P	PVC Coating on SST Armored		
	BA	Stainless Steel Bracket (Angle type) with SST Bolts		
	BF	Stainless Steel Bracket (Flat type) with SST Bolts		
	CA	Painted Steel Mounting Bracket (Angle Type) with SST Bolts		
	CF	Painted Steel Mounting Bracket (Flat Type) with SST Bolts		
	X	Special Order		

Note 1 : Request to manufacturer for Draft Range, Absolute (small pressure and vacuum) and Items marked " * " before order.

Dimensional Drawing (mm)

For Flush Diaphragm Seal and
Capillary Type Transmitter



Flange Size : 80mm (3 inch)

Unit : mm

Flange Rating	Mb	D	b	d2	k	f	d4	x
ANSI Class150	89	190	24	20	152.5	2	127	4
ANSI Class300		210	29	22	168.5		127	8
JIS 10K	89	185	18	19	150	2	126	8
JIS 20K		200	22	23	160		132	
DIN PN 10/16	89	200	20	18	160	2	138	8
DIN PN 25/40			24					

Flange Size : 50mm (2 inch)

Unit : mm

Flange Rating	Mb	D	b	d2	k	f	d4	x
ANSI Class150	59	150	20	20	120.5	2	92	4
ANSI Class300		165	22.5		127			8
JIS 10K	59	155	16	19	120	2	96	4
JIS 20K			18					8
DIN PN 10/16	59	165	20	18	125	2	102	4
DIN PN 25/40								

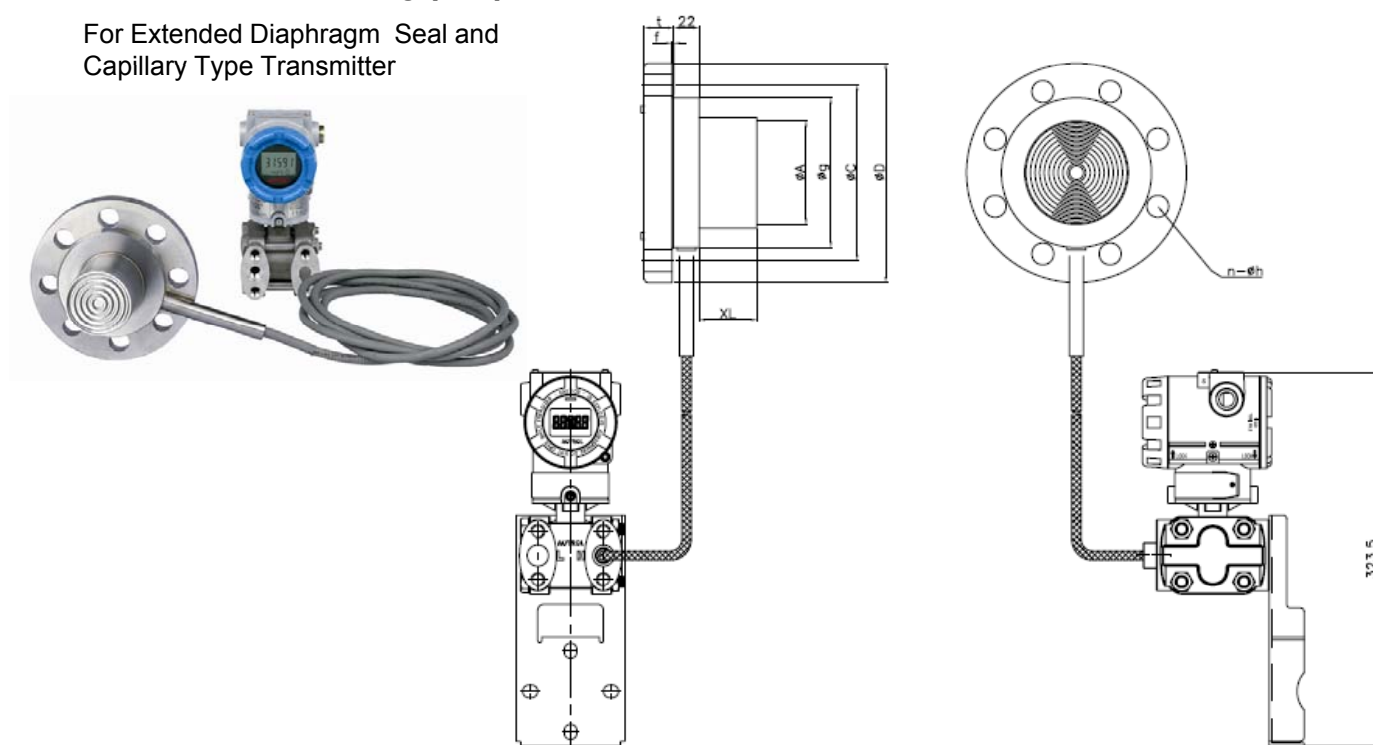
Ordering Information

MODEL NO.	Code	Description		
APT3100	- LFS	Flush Diaphragm Seal and Capillary Type Transmitter (One Remote Seal)		
Ranges	6	0-3518 to 0-70000mmH2O (0-34.5 to 0-690 KPa)		
	7	0-10565 to 0-211300mmH2O (0-103.4 to 0-2068 KPa)		
	8	0-35217 to 0-704340mmH2O (0-344.8 to 0-6895 KPa)		
	X	Special		
Mounting Flange Size/Material	C2	50mm (2-inch)	C.Steel	
	S2	50mm (2-inch)	SST	
	C3	80mm (3-inch)	C.Steel	
	S3	80mm (3-inch)	SST	
	XX	Special		
Mounting Flange Rating	A1	ANSI Class 150		
	A2	ANSI Class 300		
	J1	JIS 10K		
	J2	JIS 20K		
	D1	DIN PN 10/16		
	D2	DIN PN 25/40		
	XX	Special		
Wetted Parts Material Diaphragm/Others		DIAPHRAGM		OTHERS
	S	316L SST		316L SST
	PT	PTFE + 316L SST		316L SST
	H	Hastelloy C-276		316L SST
	T	Tantalum		316L SST
	X	Special		Special
Fill Fluid		FILL FLUID		TEMPERATURE LIMITS
	2	D.C Silicone 200		-40 ~ 205 ℃ (-40 ~ 400 ℉)
	7	D.C Silicone 704		15 ~ 205 ℃ (60 ~ 400 ℉)
	X	Special		
Capillary Length (m)	□□	Capillary Length from 1 to 12m (Example for 3m : 03)		
Materials of Construction		FLANGE		VENT / DRAIN VALVE
	CS	Plated C.Steel		316 SST
	SS	316 SST		316 SST
Electrical Connection		ELECTRICAL CONNECTION		MATERIAL
	1	1/2-14NPT		Epoxy Coated-Aluminum
	2	G1/2		Epoxy Coated-Aluminum
	X	Special		
Hazardous Locations Certifications	K0	Maker Standard (Waterproof : IP67)		
	K1	KOSHA Flameproof Approval : Ex d IIC T6.		
	K2	KTL Intrinsic Safety Approval : Ex ia IIC		
	E1	ATEX (KEMA) Flameproof		
	*E2	ATEX (KEMA) Intrinsic Safety		
	C1	CSA Explosion proof		
	*C2	CSA Intrinsic Safety		
	F1	FM Explosion proof		
	*F2	FM Intrinsic Safety		
Option	M1	LCD Indicator	LP	Lighting Protector
	W	SUS 304 Bolts and Nuts	ET	External Terminal Block
	C6	Engineering Unit		
	K	Oil Free Finish		
	P	PVC Coating on SST Armored		
	BA	Stainless Steel Bracket (Angle type) with SST Bolts		
	BF	Stainless Steel Bracket (Flat type) with SST Bolts		
	CA	Painted Steel Mounting Bracket (Angle Type) with SST Bolts		
	CF	Painted Steel Mounting Bracket (Flat Type) with SST Bolts		
	X	Special Order		

Note 1 : Request to manufacturer for Draft Range, Absolute (small pressure and vacuum) and Items marked " * " before order.

Dimensional Drawing (mm)

For Extended Diaphragm Seal and Capillary Type Transmitter



Flange Size : 80mm (3 inch)

Unit : mm

Flange Rating	Mb	D	b	d2	k	f	d4	d5	x
ANSI Class150	72	190	24	20	152.5	1.6	127	76	4
ANSI Class300		210	29	22	168.5		127	76	8
JIS 10K	72	185	18	19	150	2	126	76	8
JIS 20K		200	22	23	160		132	76	8
DIN PN 10/16	72	200	20	18	160	2	138	76	8
DIN PN 25/40			24						

Flange Size : 50mm (2 inch)

Unit : mm

Flange Rating	Mb	D	b	d2	k	f	d4	d5	x
ANSI Class150	47	150	20	20	120.5	2	92	48.3	4
ANSI Class300		165	22.5		127		92	48.3	8
JIS 10K	47	155	16	19	120	2	96	48.3	4
JIS 20K			18						8
DIN PN 10/16	47	165	20	18	125	2	102	48.3	4
DIN PN 25/40									4

Diaphragm Extension Length Code	R _L
5	50mm (2 inch)
10	100mm (4 inch)
15	150mm (6 inch)

Ordering Information

MODEL NO.	Code	Description
APT3100	- LES	Extended Diaphragm Seal and Capillary Type Transmitter (One Remote Seal)
Ranges	6	0-3518 to 0-70000mmH ₂ O (0-34.5 to 0-690 KPa)
	7	0-10565 to 0-211300mmH ₂ O (0-103.4 to 0-2068 KPa)
	8	0-35217 to 0-704340mmH ₂ O (0-344.8 to 0-6895 KPa)
	X	Special
Mounting Flange Size/Material	C2	50mm (2-inch) C.Steel
	S2	50mm (2-inch) SST
	C3	80mm (3-inch) C.Steel
	S3	80mm (3-inch) SST
	XX	Special
Mounting Flange Rating	A1	ANSI Class 150
	A2	ANSI Class 300
	J1	JIS 10K
	J2	JIS 20K
	D1	DIN PN 10/16
	D2	DIN PN 25/40
Extension Length	5	50mm (2inch)
	10	100mm (4inch)
	15	150mm (6inch)
	XX	Special
Wetted Parts Material Diaphragm/Others		DIAPHRAGM
	S	316L SST
	PT	PTFE + 316L SST
	H	Hastelloy C-276
	T	Tantalum
	X	Special
Fill Fluid		OTHERS
		316L SST
		316L SST
		316L SST
Capillary Length (m)		TEMPERATURE LIMITS
	2	D.C Silicone 200 -40 ~ 205 °C (-40 ~ 400 °F)
	7	D.C Silicone 704 15 ~ 205 °C (60 ~ 400 °F)
	X	Special
Materials of Construction	□□	Capillary Length from 1 to 12m (Example for 3m : 03)
		FLANGE
	CS	Plated C.Steel
Electrical Connection	SS	316 SST
		VENT / DRAIN VALVE
		316 SST
Hazardous Locations Certifications		ELECTRICAL CONNECTION
	1	1/2-14NPT
	2	G1/2
	X	Special
Option	K0	Maker Standard (Waterproof : IP67)
	K1	KOSHA Flameproof Approval : Ex d IIC T6.
	K2	KTL Intrinsic Safety Approval : Ex ia IIC
	E1	ATEX (KEMA) Flameproof
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Smart Transmitter with Diaphragm Seal**Direct Mount Type****APT3100LFD / LED****Two Remote Type****APT3100LFC / LEC****One Remote Type****APT3100LFS / LES**