PRODUCT OVERVIEW

KPT600DP Differential Pressure Transmitter

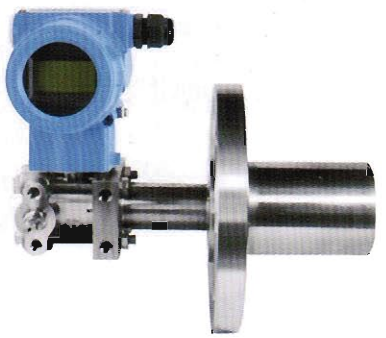
- Measurement medium: gas, steam, liquid
- Range Limits: 0—100Pa~3MPa
- Accuracy: ±0.075%
- Isolating Diaphragm: 316L stainless steel / Hastel- loy C/EFP or PFA plated on 316L/ Tantalum
- Fill fluid :Silicone oil/Fluorinated oil

KPT600RD Remote seal Differential Pressure Transmitter

- Measurement medium: gas, steam, liquid
- Range Limits: 0—100Pa~3MPa
- Accuracy: ±0.075%
- Isolating Diaphragm: 316L stainless steel / Hastel- loy C/EFP or PFA plated on 316L/ Tantalum
- Fill fluid :Silicone oil/Fluorinated oil

KPT600LT Differential Level Transmitter

- Measurement medium: gas, steam, liquid
- Range Limits: 0—1KPa ~ 2MPa
- Accuracy: ±0.075%
- Isolating Diaphragm: 316L stainless steel / Hastel- loy C/EFP or PFA plated on 316L/ Tantalum
- Fill fluid: Silicone oil/ Vegetable oil



KPT600GP Gauge Pressure Transmitter
KPT600GA Absolute Pressure Transmitter

- Measurement medium: gas, steam, liquid
- Range Limits: 0—0.6KPa ~ 40MPa
- Accuracy: ±0.075%
- Isolating Diaphragm: 316L stainless steel / Hastel- loy C
- Fill fluid: Silicone oil

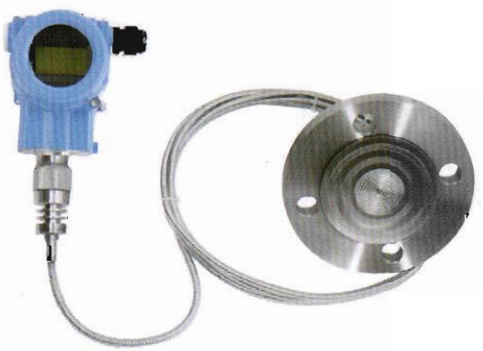
PRODUCT OVERVIEW

KPT601TG- Gauge Pressure Transmitter
KPT601TA- Absolute Pressure Transmitter

- Measurement medium: gas, steam, liquid
- Range Limits: 0—0.6KPa ~ 40MPa
- Accuracy: ±0.075%
- Isolating Diaphragm: 316L stainless steel / Hastel- loy C
- Fill fluid: Silicone oil

KPT601RT Remote Seal Gauge Pressure Transmitter
KPT601RA Remote Seal Absolute Pressure Transmitter

- Measurement medium: gas, steam, liquid
- Range Limits: 0—0.6KPa ~ 25MPa
- Accuracy: ±0.075%
- Isolating Diaphragm: 316L stainless steel / Hastel- loy C
- Fill fluid: Silicone oil



KPT602TG Gauge Pressure Transmitter
KPT602TA Absolute Pressure Transmitter

- Measurement medium: gas, steam, liquid
- Range Limits: 0—25KPa ~ 2.5MPa
- Accuracy: ±0.075%
- Isolating Diaphragm: 316L stainless steel / Hastel- loy C
- Fill fluid: Silicone oil

KPT603TG Gauge Pressure Transmitter
KPT603TA Absolute Pressure Transmitter

- Measurement medium: gas, steam, liquid
- Range Limits: 0—25KPa ~ 2.5MPa
- Accuracy: ±0.075%
- Isolating Diaphragm: 316L stainless steel / Hastel- loy C
- Fill fluid: Silicone oil

KPT600DP- Differential Pressure Transmitter

The differential pressure transmitter KPT600DP is suitable to measure liquid, gas, or steam flow as well as liquid level, density and pressure. KPT600DP- B/C outputs a 4 to 20 mA DC HART signal corresponding to the measured differential pressure. Other key features include quick response, remote set-up using communications, self-diagnostics and optional status output for pressure high/low alarm.

STANDARD SPECIFICATIONS

1 PERFORMANCE SPECIFICATIONS

Reference Accuracy of Calibrated Span (includes terminal-based linearity, hysteresis, and repeatability)

± 0.075%

If TD>10 (TD=URL/SPAN):

±(0.0075×TD)%

The square root accuracy is 1.5 times of reference accuracy of calibrated span.

Ambient Temperature Effects

Span Code	-20℃~65℃
A	±(0.45×TD+0.25)%×Span
B	±(0.30×TD+0.20)%×Span
C/D/F	±(0.20×TD+0.10)%×Span
Span Code	-40℃~-20℃ & 65℃~85℃
A	±(0.45×TD+0.25)%×Span
B	±(0.30×TD+0.20)%×Span
C/D/F	±(0.20×TD+0.10)%×Span

Static Pressure Effects

Span Code	Static Pressure Effects
A	±(0.15%URL+0.10%Span)/4MPa
B	±(0.10%URL+0.075%Span)/16MPa
C/D/F	±(0.05%URL+0.05%Span)/16MPa

Overpressure Effects

Span Code	Overpressure Effects
A	±0.2%×Span/4MPa
B	±0.2%×Span/16MPa
C/D/F	±0.1%×Span/16MPa

Stability

Span Code	Stability
A	±0.5%×Span/1year
B	±0.2%×Span/1 year
C/D/F	±0.1%×Span/1 year

Power Supply Effects

±0.001% /10V (12~42VDC)

2 FUNCTIONAL SPECIFICATIONS

Span and Range Limits

Span/ Range Limits		kPa	mbar
A	Span	0.1~1	1~10
	Range Limits	-1~1	-10~10
B	Span	0.2~6	2~60
	Range Limits	-6~6	-60~60
C	Span	0.4~40	4~400
	Range Limits	-40~40	-400~400
D	Span	2.5~250	25~2500
	Range Limits	-250~250	-2500~2500
F	Span	30~3000	0.3~30 bar
	Range Limits	-500~2000	-5~30bar

Zero Adjustment Limits

Zero can be fully elevated or suppressed, within the lower and upper range limits of the capsule.

External Zero Adjustment

External zero is continuously adjustable with 0.01% incremental resolution of span. Re-range can be done locally using the range setting switch.

Mounting Position Effects

Rotation in diaphragm plane has no effect. Tilting up to 90 degree will cause zero shift up to 0.4 kPa which can be corrected by the zero adjustment.

Output

Two wire 4 to 20 mA DC output with digital communications, linear or square root programmable. HART FSK protocol is option superimposed on the 4 to 20 mA signal. Output range: 3.9 mA to 20.5 mA.

Failure Alarm (the mode can be selected)

Low Mode (min): 3.7 mA
High Mode (max): 21 mA
No Mode (hold): Keep the effective value before the fault.
Note: The standard setting of failure alarm is High Mode.

Response Time

The amplifier damping constant is 0.1 sec; The sensor damping constant is 0.1~1.6 sec, it depends on the range and range compression ratio. Amplifier damping time constant is adjustable from 0 to 60 sec by software and added to response time.

Ambient Temperature Limits

-40 to 85°C
-20 to 65°C with LCD display or fluorine rubber sealing

Storage and Transportation Temperature Limits

-50 to 85°C; -40 to 85°C with LCD display

Working Pressure Limits (Silicone oil)

Maximum working pressure: 0.2MPa, 7MPa, 16MPa, 25MPa, 40MPa

Static Pressure Limits

3.5kPa abs. to maximum working pressure.

One-way Overload Pressure Limit

The maximum one-way overload pressure is maximum working pressure.

3 INSTALL

Supply & Load Requirements

24 VDC supply, R≤(Us-12V)/Imax kΩ, Imax=23 mA.
Maximum voltage limited: 42VDC, Minimum voltage limited: 12VDC, 15VDC (with LCD display)
230Ω to 600Ω for digital communication

Electrical Connection

The electrical connection is made via cable entry M20x1.5.The screw terminals are suitable for wire cross-sections up to 2.5mm².

Process Connection

Flange with fixing thread 7/16-20 UNF and 1/4-18 NPT female thread on both sides.

4 PHYSICAL SPECIFICATIONS

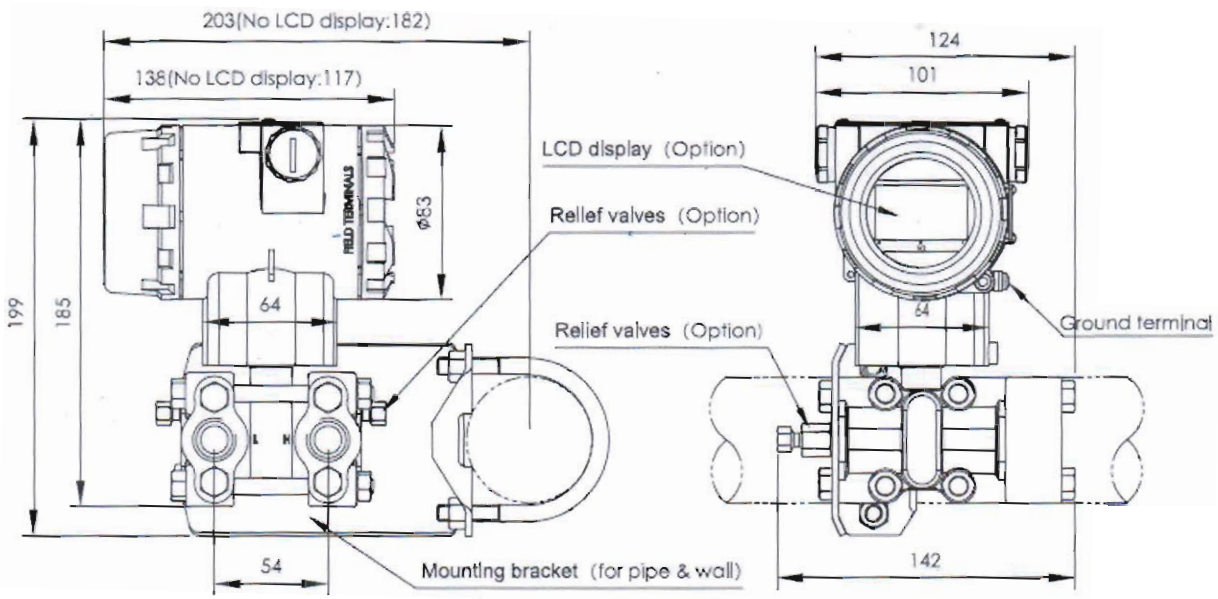
Wetted Parts Materials

Sensor Body: 316L stainless steel
Isolating Diaphragm: 316L stainless steel/Hastelloy C
Nuts and Bolts: 304 stainless steel
Process Connector: 304 stainless steel
Fill fluid: Silicone oil/Fluorinated oil
Process Connector Gasket: Perbunan (NBR) /Viton (FKM) /Teflon(PTFE)
Amplifier Housing: Aluminum with epoxy resin coat
Housing Gasket: Perbunan (NBR)
Name plate and tag: 304 stainless steel
Weight: 3.3kg
Degrees of Protection: IP67

5 DIMENSIONS

Unit : mm

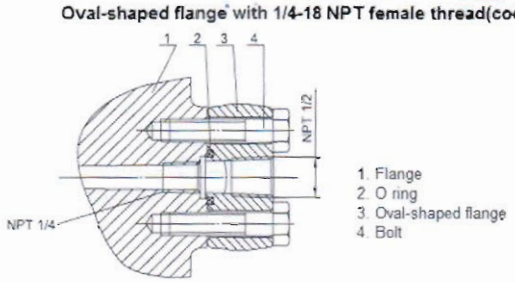
Horizontal Impulse Piping Type（side face） Horizontal Impulse Piping Type（front side）



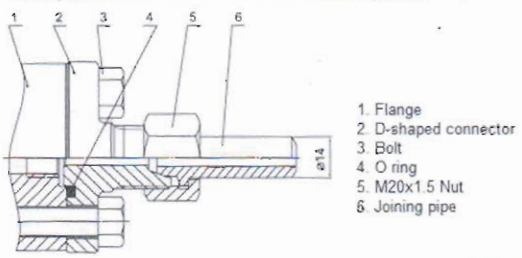
6 PROCESS CONNECTIONS DESCRIPTION

Process connections

Oval-shaped flange with 1/4-18 NPT female thread(code 1)



D-shaped connector with M20x1.5 male thread(code 2)



7 MODEL AND SUFFIX CODES

Differential Pressure Transmitter KPT600DP-			
10	Output		
	H	4-20mA with HART	
20	Span		
		A	0-100Pa～1kPa（0-10～100 mmH2O）/(0-1～10mbar)
		B	0-200Pa～6kPa（0-20～600 mmH2O）/(0-2～60mbar)
		C	0-400Pa～40kPa（0-40～4000 mmH2O）/(0-20～400mbar)
		D	0-2.5kPa～250kPa（0-0.25～25 mH2O）/(0-25～2500mbar)
		F	0-30kPa～3MPa（0-3～300 mH2O）/(0-0.3～30bar)

30	Diaphragm fill fluid		
	A	316L stainless steel	Silicone oil
	C	Hastelloy C	Silicone oil
40	Working pressure		
	0	0.2MPa(only for A Span)	
	7	7MPa(only for A Span)	
	1	16MPa	
	2	25MPa	
	3	40MPa	
50	Process connections		
	N	7/16-20 UNF and 1/4-18 NPT female thread, No relief valve	
	B	7/16-20 UNF and 1/4-18 NPT female thread, Relief valves at end of flanges	
	U	7/16-20 UNF and 1/4-18 NPT female thread, Relief valves at the upper part of the flange side	
	D	7/16-20 UNF and 1/4-18 NPT female thread, Relief valve at the lower part of the flange side	
60	Process connector gasket		
	N	Perbunan（NBR）	
	F	Viton (FKM)	
	P	Teflon (PTFE)	
70	Special function		
	N	None	
	F	Square root output	
	O	Degrease cleansing treatment（Oxygen measurement must be with fluorinated oil filled capsule, Viton (FKM) gasket, <6MPa ,<60℃)	
80	Mounting bracket		
	N	None	
	1	304 stainless steel	
	2	Carbon steel galvanized	
90	Process connector accessory		
	N	None	
	1	Stainless steel oval-shaped flange with 1/2 NPT female thread	
	2	Stainless steel D-shaped connector with M20x1.5 male thread	
100	Integral indicator		
	N	None	
	1	LCD display	
	2	Backlit LCD display	
110	Explosion-proof option		
	N	None	
	I	Intrinsic safety Exia	
	D	Isolated explosion Exd	

KPT600RD Remote Seal Differential Pressure Transmitter

1 Application

The remote seal differential pressure transmitter KPT600RD is suitable to measure liquid, gas, or steam flow as well as liquid level, density and pressure. KPT600RD outputs a 4 to 20 mA DC signal corresponding to the measured differential pressure. Its highly accurate and stable sensor can also measure the static pressure which can be shown on the integral indicator or remotely monitored via HART communications. Other key features include quick response, remote set-up using communications, self-diagnostics and optional status output for pressure high/low alarm. The range Limits is 0—1kPa ~ 2MPa,The flange' s working pressure are 1.6/4MPa,6.4MPa,10MPa,150psi,300psi or 600psi.

2 Input

Measured value: Differential pressure, Level

Measuring range

Lower range value: -100% to +100% of the URL(continuously adjustable)

Upper range value: Up to 100% of the URL(continuously adjustable)

Spans

Table1: Span code, measuring range and SWP

Span code	Measuring range		SWP (Max)
	Min	Max	
B	1kPa	6kPa	The flange' s working pressure
C	4kPa	40kPa	
D	25kPa	250kPa	
E	200kPa	2MPa	

Table 2: Flange and minimum measuring range

Flange	Nominal diameter	The minimum measuring range	
		one flange	two flange
Flat sealing	DN 50/2"	10kPa	10kPa
	DN 80/3"	6kPa	1kPa
	DN 4"	6kPa	1kPa
Bulge sealing	DN 50/2"	16kPa	16kPa
	DN 80/2"	6kPa	1kPa
	DN 4"	6kPa	1kPa

The minimum measuring range of the remote seal differential pressure transmitter should be the larger value of the minimum range of table 1 and table 2.The adjusted span must not be lower than the minimum range.

3 Output

Output signal

Two wires 4 to 20 mA DC output with digital communications, linear or square root programmable. HART FSK protocol are superimposed on the 4 to 20 mA signal. Output range: 3.9 mA to 20.5 mA.

Failure Alarm (the mode can be selected)

Low Mode (min): 3.7 mA, High Mode (max): 21 mA

No Mode (hold): Keep the effective value before the fault.

Note: The standard setting of failure alarm is High Mode.

4 Response Time

The amplifier damping constant is 0.1 sec; The sensor and flange' s damping constant is 0.2~3 sec, it depends on the range and range compression ratio. Amplifier damping time constant is adjustable from 0.1 to 60 sec by software and added to response time.

5 General conditions

Storage temperature/transport temperature

Min: depends on the fill fluid

Max: 85 C

Shock resistant: Acceleration: 50g,Duration: 11ms

Vibration resistance: 2g up to 500Hz

Process conditions

Temperature limits:-30 ~ 400 C

Table 3: Fill fluid, temperature limits and the working pressure range

Fill fluid	Silicone oil (S)	High temp. silicone oil (H)	Super high temp. silicone oil (U)	Vegetable oil (V)
Density 25°C	960 kg/m³	980 kg/m³	1020 kg/m³	937 kg/m³
Temp. limits	-30~ 200°C	-10~ 350°C	-10~ 400°C	0~ 250°C

Temp.	Working pressure range (kPa abs.)			
20°C	>10	>10	>10	>25
100°C	>25	>25	>25	>50
150°C	>50	>50	>50	>75
200°C	>75	>75	>75	>100
250°C		>100	>100	>100
350°C		>100	>100	
400°C			>100	

Note: Beyond the above working temperature and working pressure range should be pointed out, a specially designed can be met the requirements.

Pressure limits: From 3.5kPa abs. to working pressure. Proof pressure up to 1.5-times the nominal pressure simultaneously on both sides of the transmitter admissible.

Flange working pressure

ANSI: 150psi ~ 600psi

DIN: PN 1.6MPa ~ PN 10MPa

One-sided overload: One-sided overload up to the rated pressure. Possibly occurring zero offsets can be corrected.

Weight

One flange remote seal: DN 50/2"about 7 ~ 10kg; DN 80/3" about 8 ~ 11kg; DN 4" about 9 ~ 12kg;

Two flange remote seal: DN 50/2"about 10 ~ 16.5kg; DN 80/3" about 12 ~ 18kg; DN 4" about 14 ~ 21kg.

Wetted Parts Materials

Flange: 316 stainless steel

Isolating Diaphragm: 316L stainless steel / Hastelloy C/EFP or PFA plated on 316L/Tantalum

Nuts and Bolts: 304 stainless steel

Process Connector: 316 stainless steel

Fill fluid: Silicone oil/ Vegetable oil

Amplifier Housing: Aluminum with epoxy resin coat

Housing Gasket: Perbunan (NBR)

Name plate and tag: 304 stainless steel

Degrees of Protection: IP67

Electrical Connection

The electrical connection is made via cable entry M20x1.5.The screw terminals are suitable for wire cross-sections up to 2.5mm².

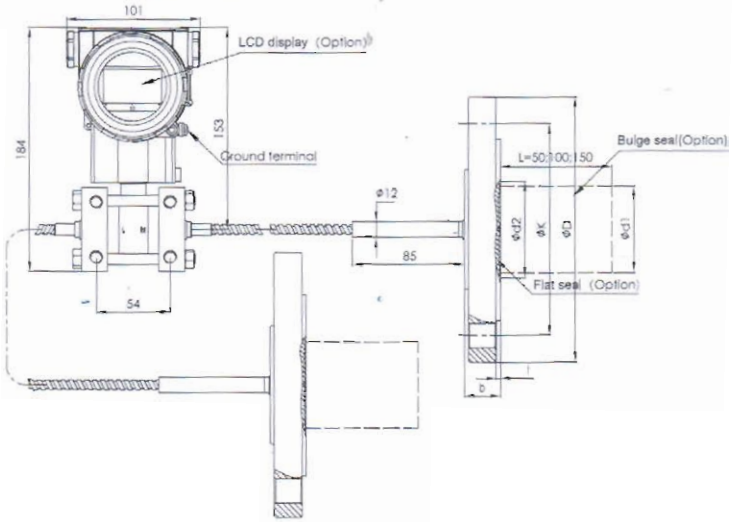
Process Connection

Flange with fixing thread 7/16-20 UNF .The flange comply with the ANSI standard or DIN standards.

6 DIMENSIONS

Unit : mm

Figure 1 Two side flange remote seal device



Note: (1) The one side flange can be installed in the high or low pressure side of the transmitter ;

(2) The one or two side flange remote seal transmitter' s installation is the same way as the KPT600RD series differential pressure transmitter

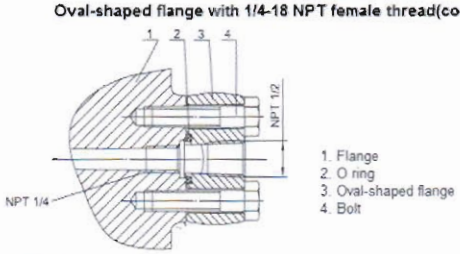
Table 4: Remote seal flange dimensions

Nominal diameter	Working pressure	ΦD	ΦK	Φd1 Bulge seal	Φd2 Flat seal	Φd3	t	b	Bolt	
DN 50	PN1.6/4MPa	165	125	48.3	57	102	$3^{+0.5}$	20	4	M16
(Sealing DIN 2526E)	PN 6.4MPa	18	135	48.3	57	102	$3^{+0.5}$	26	4	M20
(Flange DIN 2501)	PN 10MPa	195	145	48.3	57	102	$3^{+0.5}$	28	4	M20
DN 80	PN1.6/4MPa	200	160	76	75	138	$3^{+0.5}$	24	8	M16
(Sealing DIN 2526E)	PN 6.4MPa	215	170	76	75	138	$3^{+0.5}$	28	8	M20
(Flange DIN 2501)	PN 10MPa	230	180	76	75	138	$3^{+0.5}$	32	8	M24
DN 2"	150psi	152.4	120.6	48.3	57	92.1	$3^{+0.5}$	17.4	4	M18
(ANSI B 16.5 RF)	300psi	165.1	127.0	48.3	57	92.1	$3^{+0.5}$	20.6	8	M18
	600psi	165.1	127.0	48.3	57	92.1	6.35	31.75	8	M18
DN 3"	150psi	190.5	152.4	76	75	127	$3^{+0.5}$	22.2	4	M16
(ANSI B 16.5 RF)	300psi	209.5	168.3	76	75	127	$3^{+0.5}$	27.0	8	M20
	600psi	209.5	168.3	76	75	127	6.35	38.05	8	M20
DN 4"	150psi	229	191	89	89	157	$3^{+0.5}$	30	8	M18
(ANSI B 16.5 RF)	300psi	255	200	89	89	157	$3^{+0.5}$	32	8	M18

7 Process Connections Description of the no flange side

Process connections

Oval-shaped flange with 1/4-18 NPT female thread(code 1)



D-shaped connector with M20x1.5 male thread(code 2)

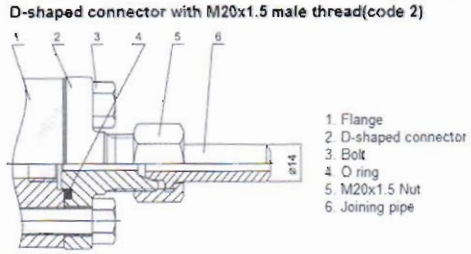
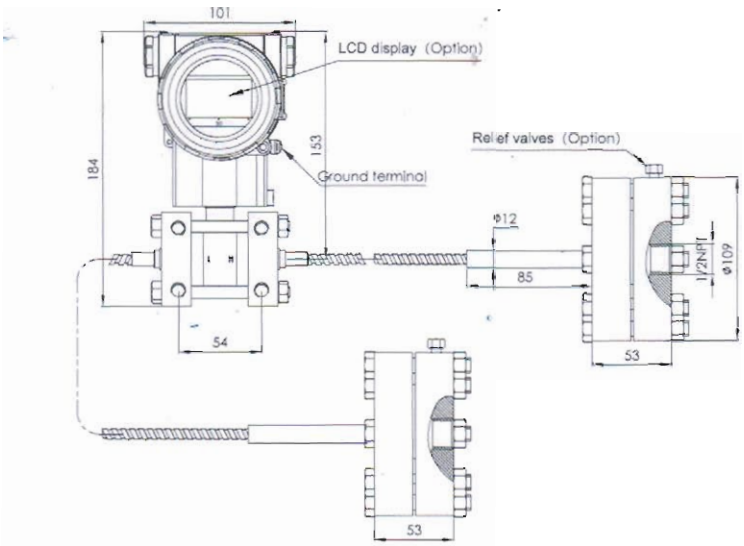


Figure2 Two side flange remote seal of threaded mount device



8 Model and suffix codes [1]

Flange sealing device selection of the remote seal differential pressure transmitter KPT600RD					
10	Flange sealing device				
	RH-	With capillary⊕side			
	RL-	With capillary⊖side			
20		Process connection, Flange and diaphragm material			
		A	DN50 DIN 2501	E DN2526	316L stainless steel
		B	DN50 DIN 2501	E DN2526	Hastelloy C
		C	DN50 DIN 2501	E DN2526	Tantalum
		H	DN80 DIN 2501	E DN2526	316L stainless steel
		I	DN80 DIN 2501	E DN2526	Hastelloy C
		G	DN80 DIN 2501	E DN2526	Tantalum
		D	DN2"ANSI B 16.5	RF ANSI B 16.5	316L stainless steel
		E	DN2"ANSI B 16.5	RF ANSI B 16.5	Hastelloy C
		F	DN2"ANSI B 16.5	RF ANSI B 16.5	Tantalum
		K	DN3"ANSI B 16.5	RF ANSI B 16.5	316L stainless steel
		L	DN3"ANSI B 16.5	RF ANSI B 16.5	Hastelloy C
		M	DN3"ANSI B 16.5	RF ANSI B 16.5	Tantalum
		N	DN4"ANSI B 16.5	RF ANSI B 16.5	316L stainless steel
		O	DN4"ANSI B 16.5	RF ANSI B 16.5	Hastelloy C
		P	DN4"ANSI B 16.5	RF ANSI B 16.5	Tantalum
30			Working pressure		
			1	PN 1MPa/4MPa	DIN 2501
			2	PN 6.4MPa	DIN 2501
			3	PN 10MPa	DIN 2501
			6	150psi	ANSI B 16.5
			7	300psi	ANSI B 16.5
			8	600psi	ANSI B 16.5(not including DN4" ANSI B 16.5)

40				**Process connections**					
				F	Flat sealing				
				H	Bulge sealing, 316L stainless steel,extended diaphragm seal 50mm				
				I	Bulge sealing, 316L stainless steel,extended diaphragm seal 100mm				
				G	Bulge sealing, 316L stainless steel,extended diaphragm seal 150mm				
				L	Bulge sealing, Hastelloy C, extended diaphragm seal 50mm				
				M	Bulge sealing, Hastelloy C, extended diaphragm seal 100mm				
				N	Bulge sealing, Hastelloy C, extended diaphragm seal 150mm				
50					**Fill fluid**				
					S	Silicone oil	-30～200℃		
					H	High temp. silicone oil	-10～350℃		
					U	Super high temp. silicone oil	-10～400℃		
					V	Vegetable oil	0～250℃		
60						**Capillary Length**			
						1	1m		
						2	2m		
						3	3m		
						4	4m		
						5	5m		
						6	6m		
						8	8m		
						A	10m		
						S	Special length		
70							**Capillary component characteristics**		
							N	None	
							P	With PVC protective coating capillary	
80								**Diaphragm Protection**	
								N	None
								1	EFP plated on 316L ≤ 180℃
								2	PFA plated on 316L ≤ 260℃
								3	PTFE coated on 316L[2] ≤ 200℃

Note 1: Before flange sealing device selection, the selection of the KPT600DP differential pressure transmitter should be completed, and selected R option in line 60 of the in KPT600DP options table;

Note 2: The PTFE membrane(F4 membrane) posted on the diaphragm, it could be applied to the measurement of negative pressure >50kPa, but it applies only to the flat level flange.

Note 3: Differential pressure transmitter options see the KPT600DP Series transmitter general Specifications;

Note 4: The minimum measuring range of the remote seal gauge/absolute pressure transmitter should be the larger value of the minimum range of table 1 and table 2. The adjusted span must not be lower than the minimum range.

Note 5: When measuring pressure <50kPa (absolute pressure), it requires special handling during the manufacturing process to ensure that performance.

KPT600LT Differential Pressure Level Transmitter

1 Application

The differential pressure level transmitter KPT600LT is suitable to measure liquid, gas, or steam flow as well as liquid level, density and pressure. KPT600LT outputs a 4 to 20 mA DC signal corresponding to the measured differential pressure. Its highly accurate and stable sensor can also measure the static pressure which can be shown on the integral indicator or remotely monitored via HART communications. Other key features include quick response, remote set-up using communications, self-diagnostics and optional status output for pressure high/low alarm. The range Limits is 0—1kPa~2MPa, The flange' s working pressure are 1.6/4MPa,6.4MPa,10MPa,150psi,300psi or 600psi.

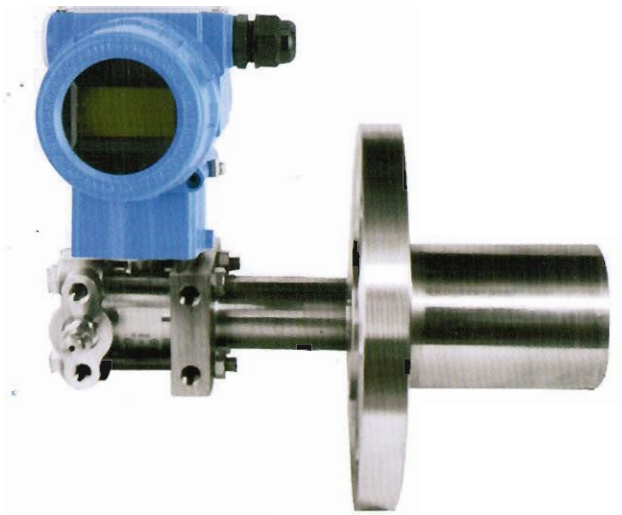
Table 1:Span code, measuring range and SWP

Span code	Measuring range		SWP (Max)
	Min	Max	
B	1kPa	6kPa	The flange's working pressure
C	4kPa	40kPa	
D	25kPa	250kPa	
E	200kPa	2MPa	

Table 2: Flange and minimum measuring range

Flange	Nominal diameter	The minimum measuring range
Bulge sealing	DN 50/2"	10kPa
	DN 80/3"	1kPa
	DN 4"	1kPa
Flat sealing	DN 50/2"	16kPa
	DN 80/2"	1kPa
	DN 4"	1kPa

The minimum measuring range of the differential pressure Level transmitter should be the larger value of the minimum range of table 1 and table 2.The adjusted span must not be lower than the minimum range.



2 Output

Output signal

Two wire 4 to 20 mA DC output with digital communications, linear or square root programmable. HART FSK protocol are superimposed on the 4 to 20 mA signal. Output range: 3.9 mA to 20.5 mA.

Failure Alarm (the mode can be selected)

Low Mode (min): 3.7 mA, High Mode (max): 21 mA
No Mode (hold): Keep the effective value before the fault.
Note: The standard setting of failure alarm is High Mode.

Pressure limits: From 3.5kPa abs. to working pressure. Proof pressure up to 1.5-times the nominal pressure simultaneously on both sides of the transmitter admissible.

Flange working pressure

ANSI: 150psi ~ 600psi
DIN: PN 1.6MPa ~ PN 10MPa

One-sided overload: One-sided overload up to the rated pressure. Possibly occurring zero offsets can be corrected.

Weight: DN 50/2"about 7 ~ 10kg; DN 80/3" about 8 ~ 11kg; DN 4" about 9 ~ 12kg

Wetted Parts Materials

Flange: 316 stainless steel
Lsolating Diaphragm: 316L stainless steel / Hastelloy C/EFP or PFA plated on 316L/Tantalum
Nuts and Bolts: 304 stainless steel
Process Connector: 316 stainless steel
Fill fluid: Silicone oil/ Vegetable oil
Process Connector Gasket: Perbunan (NBR) /Viton (FKM) /Teflon(PTFE)
Amplifier Housing: Aluminum with epoxy resin coat
Housing Gasket: Perbunan (NBR)

DIMENSIONS

Unit : mm

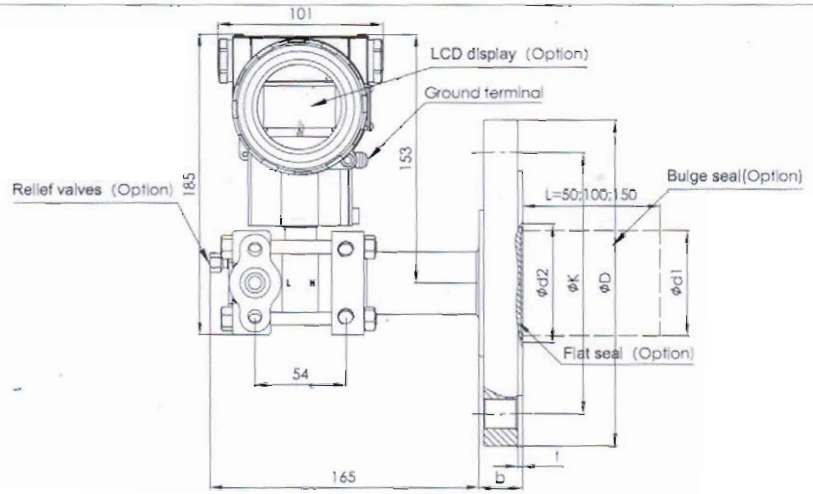


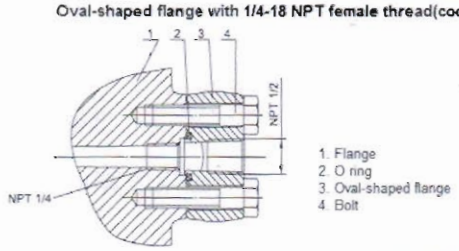
Table 3: Level flange dimensions

Nominal diameter	Working pressure	ΦD	ΦK	Φd1 Bulge seal	Φd2 Flat seal	Φd3	t	b	Bolt	
DN 50	PN1.6/4MPa	165	125	48.3	57	102	$3^{+0.5}$	20	4	M16
(Sealing DIN 2526E)	PN 6.4MPa	18	135	48.3	57	102	$3^{+0.5}$	26	4	M20
(Flange DIN 2501)	PN 10MPa	195	145	48.3	57	102	$3^{+0.5}$	28	4	M20
DN 80	PN1.6/4MPa	200	160	76	75	138	$3^{+0.5}$	24	8	M16
(Sealing DIN 2526E)	PN 6.4MPa	215	170	76	75	138	$3^{+0.5}$	28	8	M20
(Flange DIN 2501)	PN 10MPa	230	180	76	75	138	$3^{+0.5}$	32	8	M24
DN 2" (ANSI B 16.5 RF)	150psi	152.4	120.6	48.3	57	92.1	$3^{+0.5}$	17.4	4	M18
	300psi	165.1	127.0	48.3	57	92.1	$3^{+0.5}$	20.6	8	M18
	600psi	165.1	127.0	48.3	57	92.1	6.35	31.75	8	M18
DN 3" (ANSI B 16.5 RF)	150psi	190.5	152.4	76	75	127	$3^{+0.5}$	22.2	4	M16
	300psi	209.5	168.3	76	75	127	$3^{+0.5}$	27.0	8	M20
	600psi	209.5	168.3	76	75	127	6.35	38.05	8	M20
DN 4"	150psi	229	191	89	89	157	$3^{+0.5}$	30	8	M18
(ANSI B 16.5 RF)	300psi	255	200	89	89	157	$3^{+0.5}$	32	8	M18

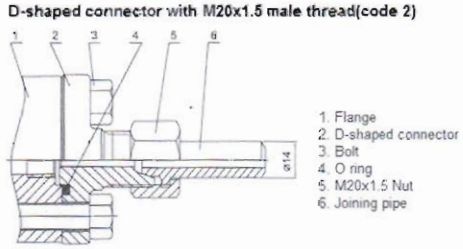
3 Process Connections Description

Process connections

Oval-shaped flange with 1/4-18 NPT female thread(code 1)



D-shaped connector with M20x1.5 male thread(code 2)



4 Model and suffix codes [1]

Level flange sealing device selection of the differential pressure Level transmitter KPT600LT		
10	Flange sealing device	
	LT-	Level flange sealing, no capillary ,⊕ Side

20		Process connection, Flange and diaphragm material				
		A	DN50 DIN 2501	E DN2526		316L stainless steel
		B	DN50 DIN 2501	E DN2526		Hastelloy C
		C	DN50 DIN 2501	E DN2526		Tantalum
		H	DN80 DIN 2501	E DN2526		316L stainless steel
		I	DN80 DIN 2501	E DN2526		Hastelloy C
		G	DN80 DIN 2501	E DN2526		Tantalum
		D	DN2″ ANSI B 16.5	RF ANSI B 16.5		316L stainless steel
		E	DN2″ ANSI B 16.5	RF ANSI B 16.5		Hastelloy C
		F	DN2″ ANSI B 16.5	RF ANSI B 16.5		Tantalum
		K	DN3″ ANSI B 16.5	RF ANSI B 16.5		316L stainless steel
		L	DN3″ ANSI B 16.5	RF ANSI B 16.5		Hastelloy C
		M	DN3″ ANSI B 16.5	RF ANSI B 16.5		Tantalum
		N	DN4″ ANSI B 16.5	RF ANSI B 16.5		316L stainless steel
		O	DN4″ ANSI B 16.5	RF ANSI B 16.5		Hastelloy C
		P	DN4″ ANSI B 16.5	RF ANSI B 16.5		Tantalum
30			Working pressure			
			1	PN 1MPa/4MPa	DIN 2501	
			2	PN 6.4MPa	DIN 2501	
			3	PN 10MPa	DIN 2501	
			6	150psi	ANSI B 16.5	
			7	300psi	ANSI B 16.5	
			8	600psi	ANSI B 16.5	(not including DN4"ANSI B 16.5)
40				Flange sealing type		
				F	Flat sealing	
				H	Bulge sealing, 316L stainless steel,extended diaphragm seal 50mm	
				I	Bulge sealing, 316L stainless steel,extended diaphragm seal	
				G	100mmBulge sealing, 316L stainless steel,extended diaphragm seal	
				L	150mmBulge sealing, Hastelloy C, extended diaphragm seal 50mm	
				M	Bulge sealing, Hastelloy C, extended diaphragm seal 100mm	
				N	Bulge sealing, Hastelloy C, extended diaphragm seal 150mm	
50					Fill fluid	
					S	Silicone oil -30～200℃
					V	Vegetable oil0～250℃
60						Diaphragm Protection
						N None
						1 EFP plated on 316L, ≤180℃
						2 PFA plated on 316L, ≤260℃
						3 PTFE coated on 316L[2], ≤200℃

Note 1: Before level flange sealing device selection, the selection of the KPT600DP differential pressure transmitter should be completed, and selected L option in line 60 of the in KPT600DP options table;

Note 2: The PTFE membrane(F4 membrane) posted on the diaphragm, it could be applied to the measurement of negative pressure, but it applies only to the flat level flange.

Note 3: Differential pressure transmitter options see the KPT600DP Series transmitter general Specifications;

Note 4: The minimum measuring range of the remote seal gauge/absolute pressure transmitter should be the larger value of the minimum range of table 1 and table 2. The adjusted span must not be lower than the minimum range.

Note 5: When measuring pressure <50kPa (absolute pressure), it requires special handling during the manufacturing process to ensure that performance.

KPT600GP- Gauge Pressure Transmitter
KPT600GA- Absolute Pressure Transmitter

The pressure transmitter KPT600GP/GA is suitable to measure liquid, gas, or steam flow as well as liquid level, density and pressure. KPT600GP/GA outputs a 4 to 20 mA DC signal corresponding to the measured pressure. The key features include quick response, remote set-up using communications, self-diagnostics and optional status output for pressure high/low alarm.

STANDARD SPECIFICATIONS

1 PERFORMANCE SPECIFICATIONS

Reference Accuracy of Calibrated Span (includes terminal-based linearity, hysteresis, and repeatability)

± 0.075%;

If TD>10 (TD=URL/SPAN):

±(0.0075×TD)%;

Ambient Temperature Effects

Span Code	-20℃~65℃
B/L	±(0.30×TD+0.20)%×Span
Others	±(0.20×TD+0.10)%×Span
Span Code	-40℃~-20℃& 65℃~85℃
B/L	±(0.30×TD+0.20)%×Span
Others	±(0.20×TD+0.10)%×Span

Overpressure Effects

±0.075%×Span

Stability

Span Code	Stability
B/L	±0.2%×Span/1year
Others	±0.1%×Span/1year

Power Supply Effects:

±0.001% /10V (12~42VDC)

2 FUNCTIONAL SPECIFICATIONS

Span and Range Limits (KPT600GP)

Span/Range Limits		kPa	bar
1B	Span	0.6~6	6~60mbar
	Range Limits	-6~6	-60~60mbar
1C	Span	2~40	0.02~0.4
	Range Limits	-40~40	-0.4~0.4
1D	Span	2.5~250	0.025~2.5
	Range Limits	-100~250	-1~2.5
1F	Span	30~3000	0.3~30
	Range Limits	-100~3000	-1~30
1G	Span	0.1~10MPa	1~100
	Range Limits	-0.1~10MPa	-1~100
1H	Span	0.21~21 MPa	2.1~210
	Range Limits	-0.1~21 MPa	-1~210
1I	Span	0.4~40 MPa	4~400
	Range Limits	-0.1~40 MPa	-1~400

Span and Range Limits (KPT600GA)

Span/Range Limits		kPa	bar
1L	Span	2~40	0.02~0.4
	Range Limits	0~40	0~0.4
1M	Span	2.5~250	0.025~2.5
	Range Limits	0~250	0~2.5
1O	Span	30~3000	0.3~30
	Range Limits	0~3000	0~30

External Zero Adjustment

External zero is continuously adjustable with 0.01% incremental resolution of span. Re-range can be done locally using the range setting switch.

Mounting Position Effects

Rotation in diaphragm plane has no effect. Tilting up to 90 degree will cause zero shift up to 0.4 kPa which can be corrected by the zero adjustment.

Output

Two wire 4 to 20 mA DC output with digital communications, linear or square root programmable. HART FSK protocol is option superimposed on the 4 to 20 mA signal. Output range: 3.9 mA to 20.5 mA

Failure Alarm (the mode can be selected)

Low Mode (min): 3.7 mA, High Mode (max): 21 mA
No Mode (hold): Keep the effective value before fault. The standard setting of failure alarm is High Mode.

Ambient Temperature Limits: -40 to 85°C

-20 to 65°C with LCD display or fluorine rubber sealing

Storage and Transportation Temperature Limits

-50 to 85°C, -40 to 85°C with LCD display

Working Pressure Limits (Silicone oil)

From vacuum to upper range limits

Span	6kPa (1B)	40kPa (1C)	250kPa (1D/1M)	2(3)MPa (1E/1O)
OPL	16MPa	16MPa	16MPa	16MPa
Span	10MPa (1G)	21MPa (1H)	40MPa (1I)	
OPL	20MPa	50MPa	50MPa	

3 INSTALL

Supply & Load Requirements

24 VDC supply, R≤(Us-12V)/Imax kΩ, Imax=23 mA. Maximum voltage limited: 42VDC, Minimum voltage limited: 12VDC, 15VDC (with LCD display)
230Ω to 600Ω for digital communication

Electrical Connection

The electrical connection is made via cable entry M20x1.5.The screw terminals are suitable for wire cross-sections up to 2.5mm².

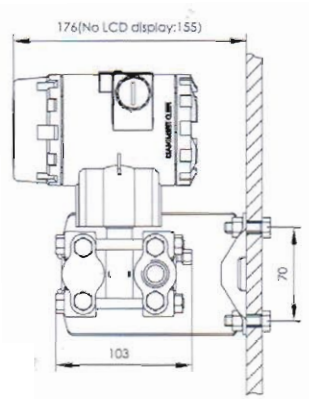
Process Connection

Default Process Connection: Flange with fixing thread 7/16-20 UNF and 1/4-18 NPT female thread on both sides.

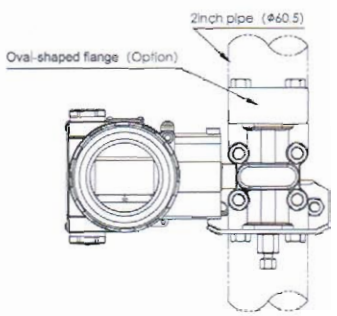
4 PHYSICAL SPECIFICATIONS

Isolating Diaphragm: 316L stainless steel/Hastelloy C
Process Connector: 316 stainless steel
Fill fluid: Silicone oil
Amplifier Housing: Aluminum with epoxy resin coat
Housing Gasket: Perbunan (NBR)
Name plate and tag: 304 stainless steel

Horizontal Impulse Wall mounting Type



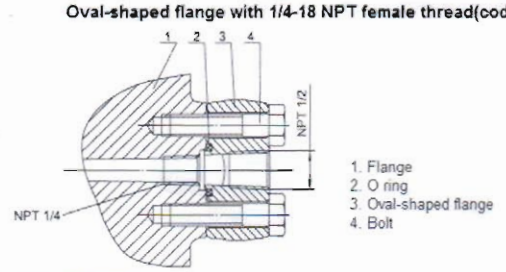
Vertical Impulse Piping Type



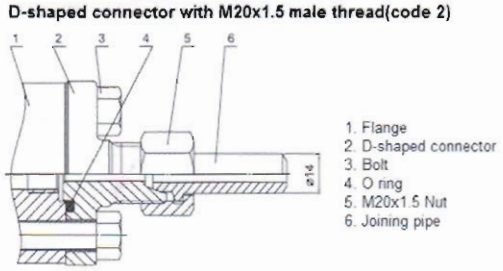
5 PROCESS CONNECTIONS DESCRIPTION

Process connections

Oval-shaped flange with 1/4-18 NPT female thread(code 1)



D-shaped connector with M20x1.5 male thread(code 2)



6 MODEL AND SUFFIX CODES

Gauge Pressure Transmitter KPT600GP-											
Absolute Pressure Transmitter KPT600GA-											
10	Output										
	H	4-20mA with HART									
20	Span[1]										
	Gauge Pressure KPT600GP								Absolute Pressure KPT600GA		
	1B	0-0.6kPa～6kPa / (0-6 ～60mbar)							1L	0-2kPa～40kPa / (0-20 ～400mbar)	
	1C	0-2kPa～40kPa / (0-20 ～400mbar)							1M	0-2.5kPa～250kPa /(0-25～2500mbar)	
	1D	0-2.5kPa～250kPa /(0-25 ～2500mbar)							1O	0-30kPa～3MPa /(0-0.3～30bar)	
	1F	0-30kPa～3MPa / (0-0.3 ～30bar)									
	1G	0-0.1MPa～10MPa /(0-1～100bar)									
	1H	0-0.21MPa～21MPa / （0-2.1～210 bar）									
	1I	0-0.4MPa～40MPa / （0-4～400 bar）									
30	Diaphragm fill fluid										
	A	316L stainless steel	Silicone oil								
	C	Hastelloy C	Silicone oil								
40	Process connector accessory										
	N	7/16-20 UNF and 1/4-18 NPT female thread, No relief valve									
	B	7/16-20 UNF and 1/4-18 NPT female thread, Relief valves at end of flange									
	U	7/16-20 UNF and 1/4-18 NPT female thread, Re lief valves at the upper part of the flange side									
	D	7/16-20 UNF and 1/4-18 NPT female thread, Relief valve at the lower part of the flange side									
50	Special function										
	N	None									
	0	Degrease cleansing treatment（Oxygen measurement must be with fluorinated oil filled capsule, Viton (FKM) gasket, <6MPa ,<60℃）									
60	Mounting bracket										
	N	None									
	1	304 stainless steel									
	2	Carbon steel galvanized									
70	Integral indicator										
	N	None									
	1	LCD display									
	2	Backlit LCD display									
80	Process connector accessory										
	N	None									
	1	Stainless steel oval-shaped flange with 1/2 NPT female thread									
	2	Stainless steel D-shaped connector with M20x1.5 male thread									
90	Explosion-proof option										
	N	None									
	I	Intrinsic safety Exia									
	D	Isolated explosion Exd									

Note 1: KPT600GP corresponding to select gauge pressure range code, KPT600GA corresponding to select absolute pressure range code;

KPT601TG- Gauge Pressure Transmitter
KPT601TA- Absolute Pressure Transmitte

The pressure transmitter KPT601TG/TA is suitable to measure liquid, gas, or steam flow as well as liquid level, density and pressure. KPT601TG/TA outputs a 4 to 20 mA DC signal corresponding to the measured pressure. The key features include quick response, remote set-up using communications, self-diagnostics and optional status output for pressure high/low alarm.

STANDARD SPECIFICATIONS

1 PERFORMANCE SPECIFICATIONS

Reference Accuracy of Calibrated Span (includes terminal-based linearity, hysteresis, and repeatability)

± 0.075%;

If TD>10 (TD=URL/SPAN):

±(0.0075×TD)%;

Ambient Temperature Effects

Span code	-20 C ~65 C
B/L	B/L
Others	Others
Span Code	Span Code
B/L	B/L
Others	Others

Overpressure Effects

±0.075%×Span

Stability

Span code	Stability
B/L	±0.2%×Span/1year
Others	±0.1%×Span/1year

2 FUNCTIONAL SPECIFICATIONS

Span and Range Limits (KPT601TA)

Span/Range Limits		kPa	bar
L	Span	2~40	0.02~0.4
	Range Limits	0~40	0~0.4
M	Span	2.5~250	0.025~2.5
	Range Limits	0~250	0~2.5
O	Span	30~3000	0.3~30
	Range Limits	0~3000	0~30

Span and Range Limits (KPT601TG)

Span/Range Limits		kPa	bar
B	Span	0.6~6	6~60mbar
	Range Limits	-6~6	-60~60mbar
C	Span	2~40	0.02~0.4
	Range Limits	-40~40	-0.4~0.4
D	Span	2.5~250	0.025~2.5
	Range Limits	-100~250	-1~2.5
F	Span	30~3000	0.3~30
	Range Limits	-100~3000	-1~30
G	Span	0.1~10MPa	1~100
	Range Limits	-0.1~10MPa	-1~100
H	Span	0.21~21 MPa	2.1~210
	Range Limits	-0.1~21 MPa	-1~210
I	Span	0.4~40 MPa	4~400
	Range Limits	-0.1~40 MPa	-1~400
J	Span	0.6~60 MPa	6~600
	Range Limits	-0.1~60 MPa	-1~600

External Zero Adjustment

External zero is continuously adjustable with 0.01% incremental resolution of span. Re-range can be done locally using the range setting switch.

Mounting Position Effects

Rotation in diaphragm plane has no effect. Tilting up to 90 degree will cause zero shift up to 0.25 kPa which can be corrected by the zero adjustment.

Output

Two wire 4 to 20 mA DC output with digital communications, linear or square root programmable. HART FSK protocol is option superimposed on the 4 to 20 mA signal. Output range: 3.9 mA to 20.5 mA

Response Time

The amplifier damping constant is 0.1 sec; The sensor damping constant is 0.1~1.6 sec, it depends on the range and range compression ratio. Amplifier damping time constant is adjustable from 0 to 60 sec by software and added to response time.

Ambient Temperature Limits: -40 to 85°C
-20 to 65°C with LCD display or fluorine rubber sealing

Working Pressure Limits (Silicone oil)

From vacuum to upper range limits

Overload Pressure Limits

Span	6kPa(B)	40kPa(C)	250kPa(D/M)	3MPa(F/O)
OPL	0.2MPa	1MPa	4MPa	16MPa
Span	10MPa(G)	21MPa(H)	40MPa(I)	60MPa(J)
OPL	20MPa	50MPa	50MPa	70MPa

3 INSTALL

Supply & Load Requirements

24 VDC supply, R≤(Us-12V)/Imax kΩ, Imax=23 mA.
Maximum voltage limited: 42VDC, Minimum voltage limited: 12VDC, 15VDC (with LCD display)
230Ω to 600Ω for digital communication

Electrical Connection

The electrical connection is made via cable entry M20x1.5.The screw terminals are suitable for wire cross-sections up to 2.5mm^2.

Process Connection

Default Process Connection: 1/2-NPT female thread, it can be changed to 1/2-NPT,G1/2,M20x1.5male thread and KF16 vacuum Connection.

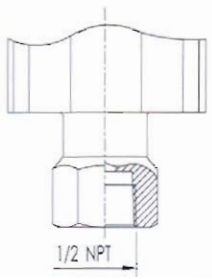
4 PHYSICAL SPECIFICATIONS

Isolating Diaphragm: 316L stainless steel/Hastelloy C
Process Connector: 316 stainless steel
Fill fluid: Silicone oil
Amplifier Housing: Aluminum with epoxy resin coat
Housing Gasket: Perbunan (NBR)
Name plate and tag: 304 stainless steel

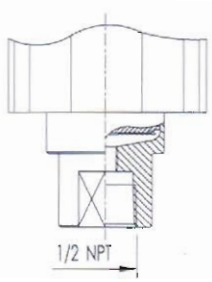
5 PROCESS CONNECTIONS DESCRIPTION

5.1 Default Process Connection (Code 1)

M/D/F/G/H/I/J/O Span

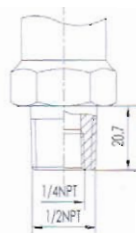


B/C/L Span



5.2 Other forms of Process connector

1/2-NPT male thread (Code 2)

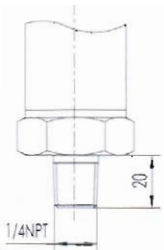


M20x1.5 male thread (Code3)

G 1/2 male thread (Code 4)

Vacuum Connection DIN 28403 KF16 / ISO 2861 (Code 5)

1/4-NPT male thread (Code 6)



6 MODEL AND SUFFIX CODES

Gauge Pressure Transmitter KPT601TG-											
Absolute Pressure Transmitter KPT601TA-											
10	Output										
	H	4-20mA with HART									
20	Span[1]										
	Gauge Pressure KPT601TG								Absolute Pressure KPT601TA		
	B	0-0.6kPa～6kPa / (0-6 ～60mbar)							L	0-2kPa～40kPa / (0-20 ～400mbar)	
	C	0-2kPa～40kPa / (0-20 ～400mbar)							M	0-2.5kPa～250kPa /(0-25～2500mbar)	
	D	0-2.5kPa～250kPa / (0-25 ～2500mbar)							O	0-30kPa～3MPa /(0-0.3～30bar)	
	F	0-30kPa～3MPa / (0-0.3 ～30bar)									
	G	0-0.1MPa～10MPa /(0-1～100bar)									
	H	0-0.21MPa～21MPa / (0-2.1～210 bar)									
	I	0-0.4MPa～40MPa / (0-4～400 bar)									
	J	0-0.6MPa～60MPa / (0-6～600 bar)									
30	Diaphragm fill fluid										
	A	316L stainless steel Silicone oil									
	C	Hastelloy C Silicone oil									
40	Process connector accessory										
	1	1/2-NPT female thread									
	2	1/2-NPT male thread (Containing 1/4-NPT female thread)									
	3	M20x1.5 female thread									
	4	G 1/2 female thread									
	5	Vacuum Connection DIN 28403 KF16 / ISO 2861 [2]									
	6	1/4-NPT male thread									
50	Special function										
	N	None									
	0	Degrease cleansing treatment（Oxygen measurement must be with fluorinated oil filled capsule, Viton (FKM) gasket, <6MPa ,<60℃)									
60	Mounting bracket										
	N	None									
	1	304 stainless steel									
	2	Carbon steel galvanized									
70	Integral indicator										
	N	None									
	1	LCD display									
	2	Backlit LCD display									
80	Explosion-proof option										
	N	None									
	I	Intrinsic safety Exia									
	D	Isolated explosion Exd									

Note 1: KPT601TG corresponding to select gauge pressure range code, KPT601TA corresponding to select absolute pressure range code;

Note 2: Vacuum Connection DIN 28403 KF16 / ISO 2861, applies only to the range of less than 2,5 bar;

KPT601RT Remote Seal Gauge Pressure Transmitter

KPT601RA Remote Seal Absolute Pressure Transmitter

1 Application

The remote seal gauge/absolute-pressure transmitter KPT601RT/RA is suitable to measure liquid, gas, or steam flow as well as liquid level, density and pressure. KPT601RT/RA outputs a 4 to 20 mADC signal corresponding to the measured gauge/absolute pressure. Other key features include quick response, remote set-up using communications, self-diagnostics and optional status output for pressure high/low alarm. The range Limits is 0—6kPa~25MPa, The flange' s working pressure are 1.6/4MPa,6.4MPa,10MPa,150psi,300psi or 600psi.

2 Input

Measured value: Gauge/absolute pressure, Level

Measuring range

Gauge pressure:

-100%URL to +100%URL (continuously adjustable)

Absolute pressure:

0 to +100%URL (continuously adjustable)

Spans

Tanble1Span code, measuring range and SWP

Span code	Measuring range		SWP (Max)
	Min		
C	6kPa	40kPa	The flange' s working pressure
D	25kPa	250kPa	
F	30kPa	3MPa	
G	1MPa	10MPa	
H	2.1MPa	21MPa	
I	4MPa	40MPa	
L	6kPa abs.	40kPa abs.	
M	25kPa abs.	250kPa abs.	
O	30kPa abs.	3MPa abs.	

Table 2: Flange and minimum measuring range

Flange	Nominal diameter	The min/max measuring range	The max length of capillary
Flat sealing	DN 25/1"	160kPa/25MPa	10m
	DN 50/2"	10kPa/10MPa	12m
	DN 80/3"	6kPa/10MPa	16m
	DN 4"	6kPa/3MPa	16m
Bulge sealing	DN 50/2"	16kPa/10MPa	10m
	DN 80/2"	6kPa/10MPa	16m
	DN 4"	6kPa/3MPa	16m
threaded mount sealing	¢109mm	160kPa/25MPa	10m

The minimum measuring range of the remote seal gauge/absolute pressure transmitter should be the larger value of the minimum range of table 1 and table 2.The adjusted span must not be lower than the minimum range.

3 Output

Output signal

Two wire 4 to 20 mA DC output with digital communications, linear or square root programmable. HART FSK protocol are superimposed on the 4 to 20 mA signal. Output range: 3.9 mA to 20.5 mA.

4 GENERAL CONDITIONS

4.1 Installation conditions

The transmitter can be directly flanged in any position. Preferably in such a position that the process flange axes are vertical. Deviations from this can cause a shift in the zero, which can be corrected. The electronic housing can be rotated through 360 and can be fixed in any position. A stop prevents the housing being turned too far. The minimum bend radius of the capillary of 75mm, is strictly prohibited winding!

4.2 Process conditions

Temperature limits:-30 ~ 400 C

Table 3: Fill fluid, temperature limits and the working pressure range

Fill fluid	Silicone oil （S）	High temp. silicone oil （H）	Super high temp. silicone oil (U)	Vegetable oil （V）
Density 25℃	960 kg/m³	980 kg/m³	1020 kg/m³	937 kg/m³
Temp. limits	-30~ 200℃	-10~ 350℃	-10~ 400℃	0~ 250℃
Temp.	Working pressure range （kPa abs.）			
20℃	>10	>10	>10	>25
100℃	>25	>25	>25	>50
150℃	>50	>50	>50	>75
200℃	>75	>75	>75	>100
250℃		>100	>100	>100
350℃		>100	>100	
400℃			>100	

Note: Beyond the above working temperature and working pressure range should be pointed out, a specially designed can be met the requirements.

Pressure limits: From vacuum to working pressure.

Flange working pressure
ANSI: 150psi ~ 600psi
DIN: PN 1.6MPa ~ PN 10MPa

Weight
DN 50/2"about 7 ~ 10kg; DN 80/3" about 8 ~ 11kg; DN 4" about 9 ~ 12kg;

4.3 Supply & Load Requirements

24 V DC supply, R≤(Us-12V)/Imax kΩ,
Imax=23 mA.

Maximum voltage limited: 42VDC,
Minimum voltage limited: 12VDC,
15VDC （with LCD display）
230Ω to 600Ω for digital communication

Wetted Parts Materials

Flange: 316 stainless steel

Isolating Diaphragm: 316L stainless steel / Hastelloy C/EFP or PFA plated on 316L/Tantalum

Nuts and Bolts: 304 stainless steel

Process Connector: 316 stainless steel

Fill fluid: Silicone oil/ Vegetable oil

Process Connector Gasket: Perbunan(NBR)/Viton(FK-M)/Teflon(PTFE)

Amplifier Housing: Aluminum with epoxy resin coat

Housing Gasket: Perbunan （NBR）

Name plate and tag: 304 stainless steel

Degrees of Protection: IP67

Electrical Connection

The electrical connection is made via cable entry M20x1.5.The screw terminals are suitable for wire cross-sections up to 2.5mm².

Process Connection

The flange comply with the ANSI standard or DIN standards.

5 DIMENSIONS

Unit : mm

Figure 1 Gauge/Absolute remote seal device (RS Type)

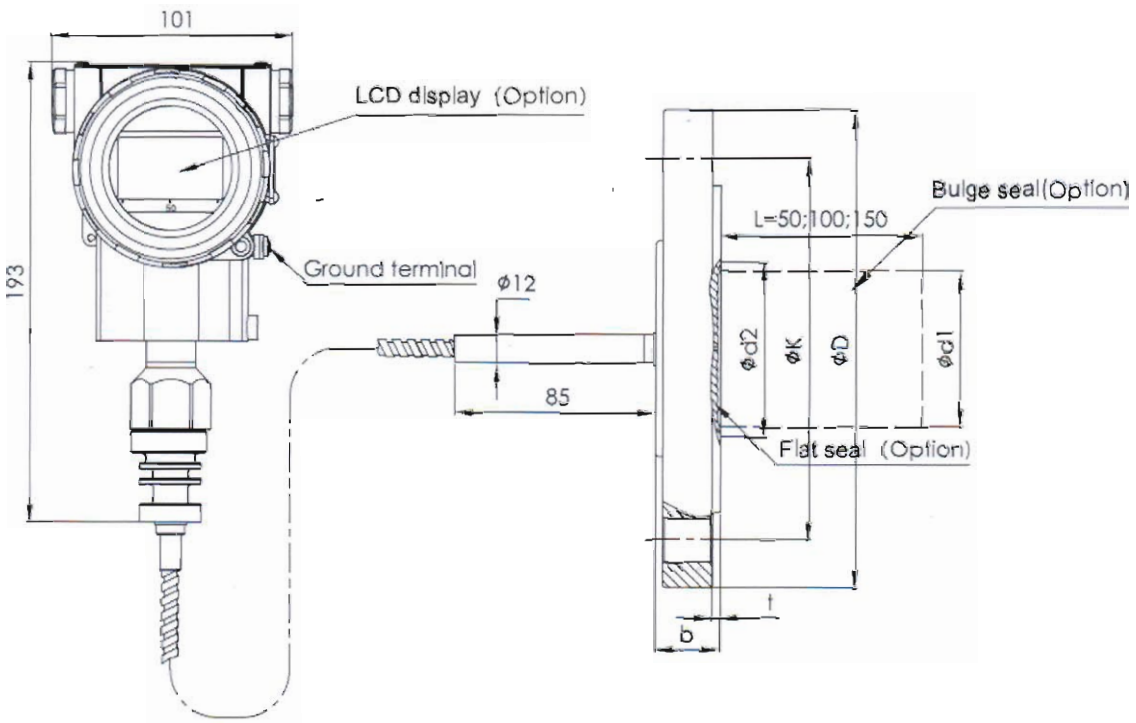


Table 4: Remote seal flange dimensions

Nominal diameter	Working pressure	ΦD	ΦK	Φd1 Bulge seal	Φd2 Flat seal	Φd3	t	b	Bolt	
DN 50	PN1.6/4MPa	165	125	48.3	57	102	$3^{+0.5}$	20	4	M16
(Sealing DIN 2526E)	PN 6.4MPa	18	135	48.3	57	102	$3^{+0.5}$	26	4	M20
(Flange DIN 2501)	PN 10MPa	195	145	48.3	57	102	$3^{+0.5}$	28	4	M20
DN 80	PN1.6/4MPa	200	160	76	75	138	$3^{+0.5}$	24	8	M16
(Sealing DIN 2526E)	PN 6.4MPa	215	170	76	75	138	$3^{+0.5}$	28	8	M20
(Flange DIN 2501)	PN 10MPa	230	180	76	75	138	$3^{+0.5}$	32	8	M24
DN 2" (ANSI B 16.5 RF)	150psi	152.4	120.6	48.3	57	92.1	$3^{+0.5}$	17.4	4	M18
	300psi	165.1	127.0	48.3	57	92.1	$3^{+0.5}$	20.6	8	M18
	600psi	165.1	127.0	48.3	57	92.1	6.35	31.75	8	M18
DN 3" (ANSI B 16.5 RF)	150psi	190.5	152.4	76	75	127	$3^{+0.5}$	22.2	4	M16
	300psi	209.5	168.3	76	75	127	$3^{+0.5}$	27.0	8	M20
	600psi	209.5	168.3	76	75	127	6.35	38.05	8	M20
DN 4"	150psi	229	191	89	89	157	$3^{+0.5}$	30	8	M18
(ANSI B 16.5 RF)	300psi	255	200	89	89	157	$3^{+0.5}$	32	8	M18

Figure 2 Internal diaphragm remote seal without capillary (UN Type)

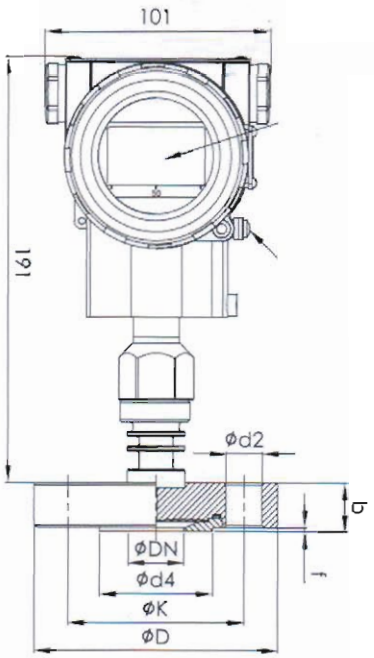


Table 6 Internal diaphragm remote seal flange dimensions (DIN 2501)

DN	PN	Dimensions, mm							
		D	K	d4	b	f	H	d2	G2
25	1MPa/4MPa	115	85	68	22	2	-	14	-
25	6.3MPa/10MPa	140	100	68	24	2	52	-	4×M16
	16MPa	140	100	68	24	2	52	-	4×M16
	25MPa	150	105	68	28	2	96	-	4×M20

Table 7 Internal diaphragm remote seal flange dimensions (ANSI B 16.5)

DN	psi	Dimensions, mm							
		D	K	d2	d4	b	f	H	G_2UNC
1"	150	110	79.5	16	51	22	2	-	-
	300	125	89	20	51	22	2	-	-
1"	600	125	89	-	51	25	7	53	4×5/8"
	1500	150	101.5	-	51	36	7	64	4×7/8"

6 Model and suffix codes[1]

1 Flange sealing device selection of the remote seal gauge/absolute pressure transmitter KPT601RT/3					
10	Flange sealing device				
	RN-	Without capillary			
	RS-	With capillary			
20		Process connection, Flange and diaphragm material			
	A	DN50 DIN 2501	E	DN2526	316L stainless steel
	B	DN50 DIN 2501	E	DN2526	Hastelloy C
	C	DN50 DIN 2501	E	DN2526	Tantalum
	H	DN80 DIN 2501	E	DN2526	316L stainless steel
	I	DN80 DIN 2501	E	DN2526	Hastelloy C
	G	DN80 DIN 2501	E	DN2526	Tantalum
	D	DN2"ANSI B 16.5	RF	ANSI B 16.5	316L stainless steel
	E	DN2"ANSI B 16.5	RF	ANSI B 16.5	Hastelloy C
	F	DN2"ANSI B 16.5	RF	ANSI B 16.5	Tantalum
	K	DN3"ANSI B 16.5	RF	ANSI B 16.5	316L stainless steel
	L	DN3"ANSI B 16.5	RF	ANSI B 16.5	Hastelloy C
	M	DN3"ANSI B 16.5	RF	ANSI B 16.5	Tantalum
	N	DN4"ANSI B 16.5	RF	ANSI B 16.5	316L stainless steel
	O	DN4"ANSI B 16.5	RF	ANSI B 16.5	Hastelloy C
	P	DN4"ANSI B 16.5	RF	ANSI B 16.5	Tantalum

30			Working pressure					
			1	PN 1MPa/4MPa	DIN 2501			
			2	PN 6.4MPa	DIN 2501			
			3	PN 10MPa	DIN 2501			
			6	150psi	ANSI B 16.5			
			7	300psi	ANSI B 16.5			
			8	600psi	ANSI B 16.5(not including DN4 "ANSI B 16.5)			
40				Process connections				
				F	Flat sealing			
				H	Bulge sealing, 316L stainless steel,extended diaphragm seal 50mm			
				I	Bulge sealing, 316L stainless steel,extended diaphragm seal 100mm			
				G	Bulge sealing, 316L stainless steel,extended diaphragm seal 150mm			
				L	Bulge sealing, Hastelloy C, extended diaphragm seal 50mm			
				M	Bulge sealing, Hastelloy C, extended diaphragm seal 100mm			
				N	Bulge sealing, Hastelloy C, extended diaphragm seal 150mm			
50					Fill fluid			
					S	Silicone oil	-30～200℃	
					H	High temp. silicone oil	-10～350℃	
					U	Super high temp. silicone oil	-10～400℃	
					V	Vegetable oil	0～250℃	
60						Capillary Length		
						1	1m	
						2	2m	
						3	3m	
						4	4m	
						5	5m	
						6	6m	
						8	8m	
						A	10m	
						S	Special length	
70							Capillary component characteristics	
							N	None
							P	With PVC protective coating capillary
80								Diaphragm Protection
								N None
								1 EFP plated on 316L, ≤180℃
								2 PFA plated on 316L, ≤260℃
								3 PTFE coated on 316L[2], ≤200℃

Note 1: Before level flange sealing device selection, the selection of the KPT601TG/TA differential pressure transmitter should be completed, and selected L option in line 60 of the in KPT601TG/TA options table;

Note 2: The PTFE membrane(F4 membrane) posted on the diaphragm, it could be applied to the measurement of negative pressure, but it applies only to the flat level flange.

Note 3: Differential pressure transmitter options see the KPT601TG/TA Series transmitter general Specifications;

Note 4: The minimum measuring range of the remote seal gauge/absolute pressure transmitter should be the larger value of the minimum range of table 1 and table 2. The adjusted span must not be lower than the minimum range.

Note 5: When measuring pressure <50kPa (absolute pressure), it requires special handling during the manufacturing process to ensure that performance.

2 Selection of the Internal diaphragm remote seal gauge/absolute pressure transmitter KPT601RT/RA							
10	Flange sealing device						
	UN-	Without capillary					
	US-	With capillary					
20		Process connection, Flange and diaphragm material					
		A	DN25 DIN 2501	D	DN2526	PN 1MPa/4MPa	
		B	DN25 DIN 2501	D	DN2526	PN 6.3MPa/10MPa	
		C	DN25 DIN 2501	D	DN2526	PN 16MPa	
		D	DN25 DIN 2501	D	DN2526	PN 25MPa	
		E	DN1"ANSI B 16.5	RF	ANSI B 16.5	150psi	
		F	DN1"ANSI B 16.5	RF	ANSI B 16.5	300psi	
		G	DN1"ANSI B 16.5	RF	ANSI B 16.5	600psi	
		H	DN1"ANSI B 16.5	RF	ANSI B 16.5	1500psi	
30			Fill fluid				
			S	Silicone oil	-30～200℃		
			H	High temp. silicone oil	-10～350℃		
			V	Vegetable oil	0～250℃		
40				Capillary Length			
				1	1m		
				2	2m		
				3	3m		
				4	4m		
				5	5m		
				6	6m		
				S	Special length		
50					Capillary component characteristics		
					N	None	
					P	With PVC protective coating capillary	

Note 6: Before flange sealing device selection, the selection of the KPT601TG/TA gauge/absolute pressure transmitter should be completed, and selected R option in line 40 of the in KPT601TG/TA options table.

Order example:

For example: KPT601RT-ACARNN1N1C[3],

UN-AS

[A]: Reference Accuracy:±0.05%

[C]: Span:0-400Pa ～ 40kPa（0-40 ～ 4000 mmH2O）

[A]: 316L stainless steel diaphragm, Silicone oil fill fluid

[R]: Remote seak

[N]: None

[N]: None

[1]: With LCD display

[N]: None of explosion protected type

[1]: Position number marked on the nameplate

[C]: Chinese manual

[UN-]: Internal diaphragm remote seal, without capillary

[A]: DN25（DIN 2501）, D DN2526, Working pressure PN 1MPa/4MPa

[S]: Fill fluid is silicone oil

Note 7: Content with note 3

Note 8: Content with note 4

Note 9: Content with note 5

KPT602TG Gauge Pressure Transmitter
KPT602TA Absolute Pressure Transmitter

The pressure transmitter KPT602TG/TA is suitable to measure liquid, gas, or steam flow as well as liquid level, density and pressure. KPT602TG/TA outputs a 4 ~20mADC signal corresponding to the measured pressure.

STANDARD SPECIFICATIONS

1 PERFORMANCE SPECIFICATIONS

Reference Accuracy of Calibrated Span
± 0.25%
Pressure hysteresis: ≤ 0.15% F.S.
Repeatability: ≤ 0.15% F.S.
Zero drift: ＜0.15% F.S.
Temperature hysteresis: ＜0.1% F.S.

2 FUNCTIONAL SPECIFICATIONS

Mounting Position Effects
Rotation in diaphragm plane has no effect. Tilting up to 90 degree will cause zero shift up to 0.15 kPa which can be corrected by the zero adjustment.

Span	Range (bar)	Span	Range (bar)
C1	0 - 0.25 gauge	C5	-1 - 0 gauge
C2	0 - 0.4 gauge	D4	-1 - 0.6 gauge
C3	0 - 0.6 gauge	D5	-1 - 1.6 gauge
D1	0 - 1 gauge	F8	-1 - 3 gauge
D2	0 - 1.6 gauge	F9	-1 - 5 gauge
D3	0 - 2.5 gauge	FA	-1 - 9 gauge
F1	0 - 4 gauge	FB	-1 - 15 gauge
F2	0 - 6 gauge	FC	-1 - 24 gauge
F3	0 - 10 gauge	FD	-1 - 29 gauge
F4	0 - 16 gauge	FE	-1 - 39 gauge
F5	0 - 25 gauge	M1	0 - 1.0 absolute
F6	0 - 30 gauge	M2	0 - 1.6 absolute
F7	0 - 40 gauge	M3	0 - 2.5 absolute
G1	0 - 60 gauge	O1	0 - 4 absolute
G2	0 - 100 gauge	O2	0 - 6 absolute
H1	0 - 160 gauge	O3	0 - 10 absolute
H2	0 - 250 gauge	O4	0 - 16 absolute
H3	0 - 400 gauge	O5	0 - 25 absolute

Span and Range Limits

Output
Two wire 4~20mADC output.
Output range: 3.8 mA to 22 mA
Ambient Temperature Limits-20 ~ 100 C
Storage and Transportation Temperature Limits
-40 ~ 125 C
Medium Temperature: -30 ~ 130 C
Working Pressure Limits
From vacuum to upper range limits

Overload Pressure Limits

Span (First letter)	Overload Pressure	Burst Pressure
C	1MPa	2MPa
D、M	2MPa	4MPa
F、O	7.5MPa	15MPa
G	15MPa	20MPa
H	60MPa	80MPa

3 INSTALL

Supply & Load Requirements
24 V DC supply, R≤(Us-12V)/Imax kΩ, Imax=23 mA. Maximum voltage limited: 42VDC,
Minimum voltage limited: 12VDC,
Electrical Connection
Hirschmann connector. The terminals are suitable for wire cross-sections up to 2.5mm2.
Process Connection
Default Process Connection: 1/2-NPT female thread, it can be changed to 1/2-NPT,G1/2,M20x1.5male thread and KF16 vacuum Connection.

4 PHYSICAL SPECIFICATIONS

Isolating Diaphragm: 316L stainless steel/Hastelloy C
Process Connector: 316 stainless steel
Fil fluid: Silicone oil
Amplifier Housing: 304 stainless steel
Housing Gasket: Perbunan (NBR)

5 Model and suffix codes

Gauge Pressure Transmitter KPT602TG

Absolute Pressure Transmitter KPT602TA

10	Accuracy										
	DT	Reference Accuracy ±0.25%									
20	Span[1]										
		Gauge KPT602TG								Absolute KPT602TA	
		C1	0 - 0.25 bar	F7	0 - 40 bar	FB	-1 - 15 bar			M1	0 - 1.0 bar
		C2	0 - 0.4 bar	G1	0 - 60 bar	FC	-1 - 24 bar			M2	0 - 1.6 bar
		C3	0 - 0.6 bar	G2	0 - 100 bar	FD	-1 - 29 bar			M3	0 - 2.5 bar
		D1	0 - 1 bar	H1	0 - 160 bar	FE	-1 - 39 bar			O1	0 - 4 bar
		D2	0 - 1.6 bar	H2	0 - 250 bar	SG	Special gauge			O2	0 - 6 bar
		D3	0 - 2.5 bar	H3	0 - 400 bar					O3	0 - 10 bar
		F1	0 - 4 bar	C5	-1 - 0 bar					O4	0 - 16 bar
		F2	0 - 6 bar	D4	-1 - 0.6 bar						
		F3	0 - 10 bar	D5	-1 - 1.6 bar						
		F4	0 - 16 bar	F8	-1 - 3 bar						
		F5	0 - 25 bar	F9	-1 - 5 bar						
		F6	0 - 30 bar	FA	-1 - 9 bar						
		O5	0 - 25 bar								
		SA	Special absolute								
30	Diaphragm fill fluid										
		A	316L stainless steel	Silicone oil							
		C	Hastelloy C	Silicone oil							
		X	316L stainless steel	Vegetable oil							
		Y	Hastelloy C	Vegetable oil							
40	Process connector accessory [2]										
		3	M20x1.5 female thread								
		4	G 1/2 female thread								
		A	Sanitary connection DIN 32676 DN25 / ISO 2852 DN 25								
		B	Sanitary connection DIN 32676 DN40 / ISO 2852 DN 38								
		C	Sanitary connection DIN 32676 DN50 / ISO 2852 DN 51								
50	Additional options[3]										
		H	Hirschmann Connector								
		S	M12 Connector								
		L	M12 Connecoter with right angle								
		1	Test report								
		2	Material report								

Note 1: KPT602TG corresponding to select gauge pressure range code, KPT602TA corresponding to select absolute pressure range code;
Note 2: Correspondence process connector and span range

Process connector	Span Code
A	C、D、M、O、F
B	C、D、M、O、F
C	C、D、M
3、4	All are OK.

Note 3: Additional options can be selected two or three items.

KPT603TG Gauge Pressure Transmitter
KPT603TA Absolute Pressure Transmitter

The pressure transmitterKPT603TG/TA is suitable to measure liquid, gas, or steam flow as well as liquid level, density and pressure.KPT603TG/TA outputs a 4 ~20mADC signal corresponding to the measured pressure.

STANDARD SPECIFICATIONS

1 PERFORMANCE SPECIFICATIONS

Reference Accuracy of Calibrated Span

± 0.25%

Pressure hysteresis: ≤ 0.15% F.S.

Repeatability: ≤ 0.15% F.S.

Zero drift: ＜0.15% F.S.

Temperature hysteresis: ＜0.1% F.S.

2 FUNCTIONAL SPECIFICATIONS

Mounting Position Effects

Rotation in diaphragm plane has no effect. Tilting up to 90° will cause zero shift up to 0.15 kPa which can be corrected by the zero adjustment.

Span	Range (bar)	Span	Range (bar)
C1	0 - 0.25 gauge	C5	-1 - 0 gauge
C2	0 - 0.4 gauge	D4	-1 - 0.6 gauge
C3	0 - 0.6 gauge	D5	-1 - 1.6 gauge
D1	0 - 1 gauge	F8	-1 - 3 gauge
D2	0 - 1.6 gauge	F9	-1 - 5 gauge
D3	0 - 2.5 gauge	FA	-1 - 9 gauge
F1	0 - 4 gauge	FB	-1 - 15 gauge
F2	0 - 6 gauge	FC	-1 - 24 gauge
F3	0 - 10 gauge	FD	-1 - 29 gauge
F4	0 - 16 gauge	FE	-1 - 39 gauge
F5	0 - 25 gauge	M1	0 - 1.0 absolute
F6	0 - 30 gauge	M2	0 - 1.6 absolute
F7	0 - 40 gauge	M3	0 - 2.5 absolute
G1	0 - 60 gauge	O1	0 - 4 absolute
G2	0 - 100 gauge	O2	0 - 6 absolute
H1	0 - 160 gauge	O3	0 - 10 absolute
H2	0 - 250 gauge	O4	0 - 16 absolute
H3	0 - 400 gauge	O5	0 - 25 absolute

Span and Range Limits

Output

Two wire 4 to 20 mA DC output.

Output range: 3.8 mA to 22 mA

Ambient Temperature Limits

-20 ～ 100 C

Storage and Transportation Temperature Limits

-40 ～ 125 C

Working Pressure Limits

From vacuum to upper range limits

Overload Pressure Limits

Span (First letter)	Overload Pressure	Burst Pressure
C	1MPa	2MPa
D、M	2MPa	4MPa
F、O	7.5MPa	15MPa
G	15MPa	20MPa
H	60MPa	80MPa

Process Connection

Default Process Connection: 1/2-NPT female thread, it can be changed to 1/2-NPT,G1/2,M20x1.5male thread and KF16 vacuum Connection.

3 PHYSICAL SPECIFICATIONS

Isolating Diaphragm: 316L stainless steel/Hastelloy C

Process Connector: 316 stainless steel

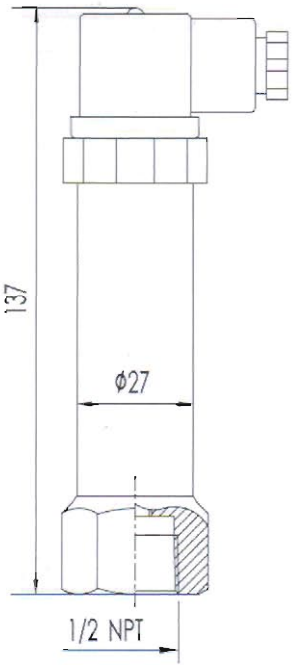
Fill fluid: Silicone oil

Amplifier Housing: 304 stainless steel

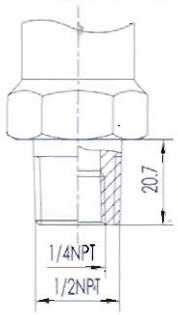
Housing Gasket: Perbunan (NBR)

4 DIMENSIONS
(Example: 1/2-NPT female thread)

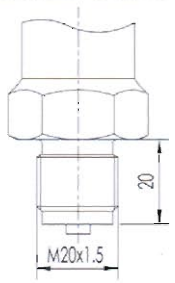
Unit (mm)



1/2-NPT male thread (Code 2)

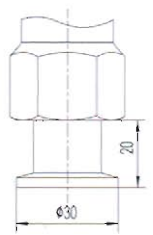


M20x1.5 male thread (Code3

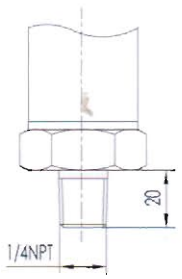


G 1/2 male thread (Code 4)

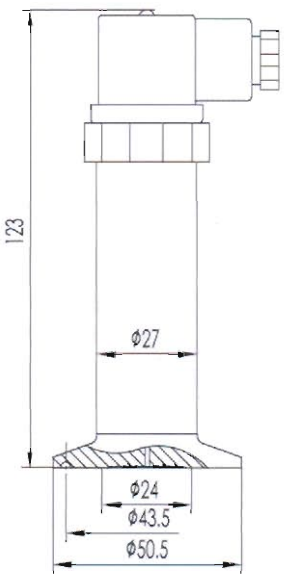
Vacuum Connection DIN 28403 KF16 / ISO 2861 (Code 5)



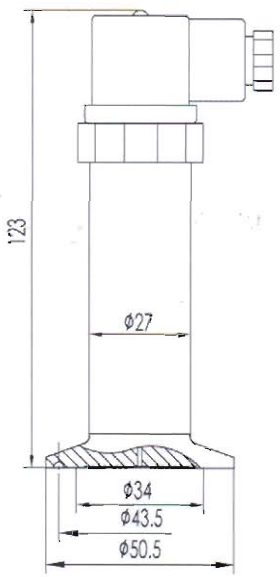
1/4-NPT male thread (Code 6)



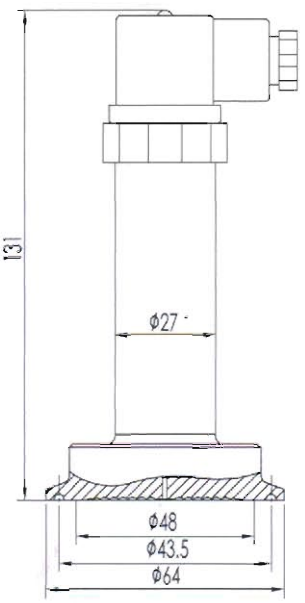
5 Process connections Description



DIN 32676 DN25
ISO 2852 DN 25



DIN 32676 DN40
ISO 2852 DN 38



DIN 32676 DN50
ISO 2852 DN 51

6 Model and suffix codes

Gauge Pressure Transmitter KPT603TG

Absolute Pressure Transmitter KPT603TA

10	Accuracy							
	D	Reference Accuracy ±0.25%						
20	Span[1]							
	Gauge KPT603TG						Absolute KPT603TA	
	C1	0 - 0.25 bar	H1	0 - 160 bar			M1	0 – 1.0 bar
	C2	0 - 0.4 bar	H2	0 - 250 bar			M2	0 – 1.6 bar
	C3	0 - 0.6 bar	H3	0 - 400 bar			M3	0 – 2.5 bar
	D1	0 - 1 bar	C5	-1 - 0 bar			O1	0 - 4 bar
	D2	0 - 1.6 bar	D4	-1 – 0.6 bar			O2	0 - 6 bar
	D3	0 - 2.5 bar	D5	-1 – 1.6 bar			O3	0 - 10 bar
	F1	0 - 4 bar	F8	-1 - 3 bar			O4	0 - 16 bar
	F2	0 - 6 bar	F9	-1 - 5 bar			O5	0 - 25 bar
	F3	0 - 10 bar	FA	-1 - 9 bar			SA	Special absolute
	F4	0 - 16 bar	FB	-1 - 15 bar				
	F5	0 - 25 bar	FC	-1 - 24 bar				
	F6	0 - 30 bar	FD	-1 - 29 bar				
	F7	0 - 40 bar	FE	-1 - 39 bar				
	G1	0 - 60 bar	SG	Special gauge				
	G2	0 - 100 bar						
30	Diaphragm fill fluid							
	A	316L stainless steel	Silicone oil					
	C	Hastelloy C	Silicone oil					
	X	316L stainless steel	Vegetable oil					
	Y	Hastelloy C	Vegetable oil					
40	Process connector accessory							
	1	1/2-NPT female thread						
	2	1/2-NPT male thread (Containing 1/4-NPT female thread)						
	3	M20x1.5 female thread						
	4	G 1/2 female thread						
	5	Vacuum Connection DIN 28403 KF16 / ISO 2861 [2]						
	6	1/4-NPT male thread						
	7	Sanitary connection DIN 32676 DN25 / ISO 2852 DN 25						
	8	Sanitary connection DIN 32676 DN40 / ISO 2852 DN 38						
	9	Sanitary connection DIN 32676 DN50 / ISO 2852 DN 51						
50	Additional options[3]							
	1	Test report						
	2	Material report						

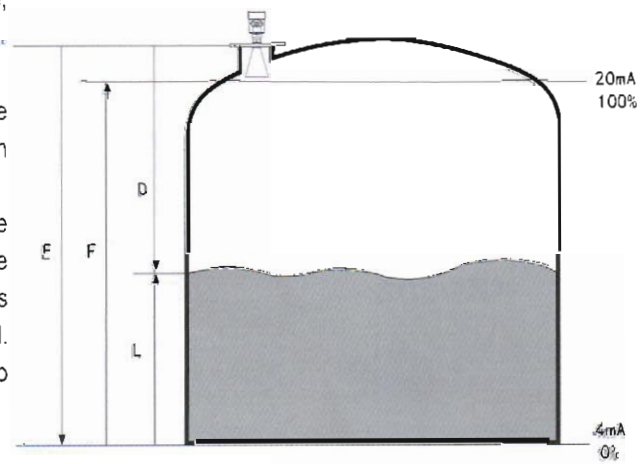
Note 1: KPT603TG corresponding to select gauge pressure range code, KPT603TA corresponding to select absolute pressure range code;
Note 2: Vacuum Connection DIN 28403 KF16 / ISO 2861, applies only to the range of less than 2,5 bar;
Note 3: Additional options can be selected two or three items.
Note 4: Process connector accessory and span:

Process connector accessory	Span code
A	C,D,M,O,F
B	C,D,M,O,F
C	C,D,M
3,4	All are OK

KRD500 series 6GHz/26GHz Intelligent Radar Level Meter

The Measurement Principle:

Antenna system to launch and microwave receiving energy is very low, very short pulse. Radar waves travel with the speed of light. The running time can be through the electronic components are converted into a signal. Measurement of this special time extension method can realize stable, accurate in a very short period of time.



Even if the condition is very complex, the presence of false echo, with the latest micro-processing technology and debugging software also can analyze the level echo accurately.
Microwave antenna to receive the reflected pulse and transmitted to the electronic circuit, a microprocessor to signal processing, to identify the micro pulse generated on the material surface echo. Echo recognition is completed by the pulse system, the accuracy can reach millimeter level. From the material surface distance between D and T pulse is proportional to the time travel:
D=C×T/2
Where C is the speed of light
Because of the air tank is a known distance E, L:
L=E-D

By setting the empty tank height E (= zero), the full height of F (= full scale) and some application parameters, application parameters automatically makes the instrument to measure the environment. 4 - 20mA with a corresponding output.

Application:

6G radar level gauge is suitable for liquid, paste, granule and block material level and non-contact measurement, suitable for changes in temperature, pressure big; there is an inert gas and volatile.
The measurement method of microwave pulse, can work normally in the industrial frequency band range. The beam energy is low, can be installed on all kinds of metal, non-metallic container or pipe, no harm to human body and environment.

- The characteristics of 26G radar level meter:
- Small antenna size, easy to install; Non-contact radar, no wear, no pollution.
- Almost no corrosion, bubble effect; almost not affected by water vapor in the atmosphere, the temperature and pressure changes.
- Serious dust environment on the high level meter work has little effect.
- A shorter wavelength, the reflection of solid surface inclination is better.
- Beam angle is small, the energy is concentrated, can enhance the ability of echo and to avoid interference.
- The measuring range is smaller, for a measurement will yield good results.
- High signal-to-noise ratio, the level fluctuation state can obtain better performance.
- High frequency, measurement of solid and low dielectric constant of the best choice.

KRD501

Suitable for Medium: Liquid, slightly corrosive liquid
Explosion-proof Grade: Exia IIC T6 Ga/ Exd ia IIC T6 Ga
Measuring Range: 20m
Aerials: The Rod Antenna (PP/PTFE)
Frequency: 6 GHz
Temperature: (-40 ~ 130) ℃
Measurement Precision: ±10mm
Process Pressure: (-0.1 ~ 0.3) MPa
The signal Output: (4 ~ 20) mA/HART
The Scene Display: Four LCD
Power Source: Two-wire (DC24V)
Four-wire （DC24V/AC220V）
Repeatability: ± 1mm
Shell: Aluminum
Connection: Flange (optional) / Thread

KRD502

Suitable for Medium: Liquid, especially for corrosive liquid
Explosion-proof Grade: Exia IIC T6 Ga/ Exd ia IIC T6 Ga
Measuring Range: 20m
Aerials: The Rod Antenna (PTFE)
Frequency: 6 GHz
Temperature: (-40 ~ 180) ℃
Measurement Precision: ± 10mm
Process Pressure: (-0.1 ~ 4) MPa
The Signal Output: (4 ~ 20) mA/HART
The Scene Display: Four LCD
Power Source: Two-wire (DC24V)
Four-wire （DC24V/AC220V）
Repeatability: ± 1mm
Shell: Aluminum
Connection: Flange (optional)

KRD503

Suitable for Medium: Liquid, especially with pressure and Volatile Liquid
Explosion-proof Grade: Exia IIC T6 Ga/ Exd ia IIC T6 Ga
Measuring range: 35m
Aerials: The Horn Antenna
Frequency: 6 GHz
Temperature: (-40 ~ 250) ℃
Measurement Precision: ± 10mm
Process Pressure: (-0.1 ~ 4) MPa
The Signal Output: (4 ~ 20) mA/HART
The Scene Display: four LCD
Power Source: Two-wire (DC24V)
Four-wire （DC24V/AC220V）
Repeatability: ± 1mm
Shell: Aluminum
Connection: Flange (optional)

KRD504

Suitable for Medium: Solid particles or block material,
And it is not suitable for solid powder
Explosion-proof Grade: Exia IIC T6 Ga/ Exd ia IIC T6 Ga
Measuring Range: 35m
Aerials: The Horn Antenna
Frequency: 6 GHz
Temperature: (-40 ~ 250) ℃
Measurement Precision: ± 20mm
Process Pressure: (-0.1 ~ 0.1) MPa
The Signal Output: (4 ~ 20) mA/HART
The Scene Display: Four LCD
Power Source: Two-wire (DC24V)
Four-wire （DC24V/AC220V）
Repeatability: ± 1mm
Shell: Aluminum
Connection: Cardan Flange (optional)

KRD505

Suitable for Medium: Liquid, especially suitable for low dielectric constant, sticky, with mixing liquid
Explosion-proof Grade: Exia IIC T6 Ga/ Exd ia IIC T6 Ga
Measuring Range: 30m
Aerials: The Horn Antenna
Frequency: 6GHz
Temperature: (-40 ~ 250) ℃
Measurement Precision: ± 10mm
Process Pressure: (-0.1 ~ 4) MPa
The Signal Output: (4 ~ 20) mA/HART
The Scene Display: Four LCD
Power Source: Two-wire (DC24V)
Four-wire （DC24V/AC220V）
Repeatability: ± 1mm
Shell: Aluminum
Connection: Flange (optional)

KRD506

Suitable for Medium: Solid, especially suitable for high temperature conditions
Explosion-proof Grade: Exia IIC T6 Ga/ Exd ia IIC T6 Ga
Measuring Range: 15m
Aerials: The Horn Antenna
Frequency: 6 GHz
Temperature: (-40 ~ 400) ℃
Measurement Precision: ± 20mm
Process Pressure: (-0.1 ~ 0.1) MPa
The Signal Output: (4 ~ 20) mA/HART
The Scene Display: Four LCD
Power Source: Two-wire (DC24V)
Four-wire （DC24V/AC220V）
Repeatability: ± 1mm
Shell: Aluminum
Connection: Flange (optional)

KRD521

Application: All kinds of corrosive liquid
Measuring Range: 10 meters
Process Connection: Thread, Flange
Medium Temperature: -40 C ~ 130 C
Process Pressure: -0.1~0.3 MPa
Accuracy: ± 5mm
Protection Grade: IP67
Frequency Range: 26GHz
Signal Output: 4... 20mA/HART (Two-wire / Four)
RS485/ Modbus
Explosion-proof Grade: Exia II C T6 Ga
Exd ia II C T6 Gb

KRD522

Application: Liquid
Measuring Range: 30 meters
Process Connection: Thread, Flange
Medium Temperature: -40 C ~ 250 C
Process Pressure: -0.1 ~ 4.0 MPa
Accuracy: ± 3mm
Protection Grade: IP67
Frequency Range: 26GHz
Signal Output: 4... 20mA/HART (Two-wire / Four)
RS485/ Modbus
Explosion-proof Grade: Exia II C T6 Ga
Exd ia II C T6 Gb

KRD523

Application: Solid material, Strong dust
easy to crystallize, condensation occasion
Measuring Range: 70 meters
Process Connection: Universal Flange
Medium Temperature: -40 C ~ 250 C
Process Pressure: -0.1 ~ 0.1 MPa
Protection Grade: IP67
Accuracy: ± 15mm
Frequency Range: 26GHz
Signal Output: 4... 20mA/HART (Two-wire / Four)
RS485/ Modbus
Explosion-proof Grade: Exia II C T6 Ga
Exd ia II C T6 Gb

KRD524

Application: Solid material, Strong dust, easy to crystallize, condensation occasion
Measuring Range: 80 meters
Process Connection: Universal Flange
Medium Temperature: -40 C ~ 250 C
Process Pressure: -0.1 ~ 0.1MPa
Accuracy: ± 15mm
Protection Grade: IP67
Frequency Range: 26GHz
Signal Output: 4... 20mA/HART (Two-wire / Four) RS485/ Modbus
Explosion-proof Grade: Exia II C T6 Ga
Exd ia II C T6 Gb

KRD525

Application: Solid particles, Powder
Measuring Range: 30 meters
Process Connection: Thread, Flange
Medium Temperature: -40 C ~ 250 C
Process Pressure: -0.1 ~ 4.0MPa (Flat flange)
-0.1 ~ 0.1MPa (Universal Flange)
Accuracy: ± 10mm
Protection Grade: IP67
Frequency Range: 26GHz
Signal Output: 4... 20mA/HART (Two-wire / Four) RS485/ Modbus
Explosion-proof Grade: Exia II C T6 Ga
Exd ia II C T6 Gb

KRD526

Application: Hygienic liquid storage, Corrosive container
Measuring Range: 20 meters
Process Connection: Flange
Medium Temperature: -40 C ~ 150 C
Process Pressure: -0.1 ~ 0.1MPa
Accuracy: ± 3mm
Protection Grade: IP67
Frequency Range: 26GHz
Signal Output: 4... 20mA/HART (Two-wire / Four) RS485/ Modbus
Explosion-proof Grade: Exia II C T6 Ga
Exd ia II C T6 Gb

FA Series
Intelligent Electromagnetic Flowmeter Sensors

Performance Feature

Diameter: DN10-DN2000
Electrode: 316L,Hc,Ti,Ta,Pt
Liner:Rubber, polyurethane,PTFE,PFA,F46
Medium: conductivity liquids
Medium conductivity :≥5μ s/cm
Accuracy: ±0.5%RS- ±1.0%RS
Velocity of flow: 0.1m/s -10m/s
Working temperature:compact≤100°C,remote≤150°C(rubber≤65°C)
Working pressure:0.6MPa-4.0MPa(base on diameter)
Protection class:IP65,IP67
Related converter type:MF710/MF720/MF730
Output:4-20mA/ frequency/pulse output signal
Power supply 85~265VAC (50HZ or 60HZ) 50/60Hz /24VDC,battery
Installation type: compact,remote

KA Series
Electromagnetic Flowmeter Sensors (Tri-clamp Type)

Performance Feature

Diameter: DN25mm-DN100
Electrode: 316L,Hc,Ti,Ta,Pt
Liner: PTFE,PFA
Medium: conductivity liquids
Medium conductivity :≥5 μ s/cm
Accuracy: ±0.5%RS- ±1.0%RS
Velocity of flow: 0.1m/s- 10m/s
Working temperature:-25°C~150°C
Working pressure:0.6MPa-1.6MPa(base on diameter)
Power supply:85~265VAC (50HZ or 60HZ) /24VDC,battery
Installation type: compact, remote
Connection standard: DIN

VA Series
Electromagnetic Flowmeter Sensors (Thread Type)

Performance Feature

Diameter: DN10mm-DN150
Electrode: 316L,Hc,Ti,Ta,Pt
Liner: PTFE,PFA
Medium: conductivity liquids
Medium conductivity :≥5μ s/cm
Accuracy: ±0.5%RS- ±1.0%RS
Velocity of flow: 0.1m/s- 10m/s
Working temperature:-25°C~150°C
Working pressure:0.6MPa-1.6MPa(base on diameter)
Power supply: 85~265VAC (50HZ or 60HZ) /24VDC
Installation type: compact, remote

JA Series
Electromagnetic flowmeter sensors (clamp type)

Performance Feature

Diameter: DN25mm-DN150
Electrode: 316L,Hc,Ti,Ta,Pt
Liner: PTFE,PFA
Medium: conductivity liquids
Medium conductivity : ≥5μ s/cm
Accuracy: ±0.25%RS,±0.5%RS,±1.0%RS
Velocity of flow: 0.1m/s-10m/s
Working temperature:-25°C~150°C
Working pressure:1.0MPa
Output:4-20mA/ frequency/pulse output signal
Power supply: 85~265VAC (50HZ or 60HZ) /24VDC
Installation type: compact, remote

KF700E Series
Battery Powered Electromagnetic Flowmeters

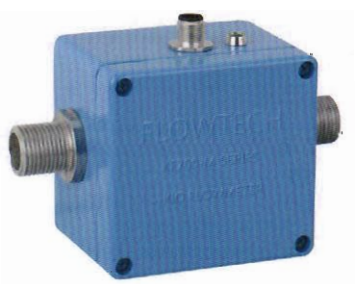
Performance Feature

Diameter:DN25mm-DN600
Electrodes:316L,Hb,Hc,Ti,Ta,Pt
Liner: rubber,PTFE
Medium:conductivity liquids
Medium conductivity:≥5μ s/cm ,softener water≥20μ s/cm
Accuracy:±1%RS-±1.5%RS
Velocity of flow:0.3m/s-5m/s
Working temp.:compact≤120°C
Working pressure:0.6Mpa-4.0Mpa(base on diameter)
Protection class:IP65,IP67
Optional converter type:MF800/810/820
Output signal:passive pulse(only for factory flow test)
Power supply:battery
Installation:compact,remote

KF700P Series
Plastic Electromagnetic Flowmeters

Performance Feature

Diameter: DN25~DN150
Electrodes: 316L, Hb, Hc, Ti, Ta, Pt
Liner: PBT
Medium: conductivity liquids
Medium Diameter: ≥20μs/cm
Accuracy: ±0.5%RS, ±1.0%RS
Converter Model: MF710 / MF730 / MF740 / MF750
Velocity of flow: 0.1m/s -10m/s
Working temp.: -25°C~+100°C
Working pressure: 0.6MPa~1.0MPa(Base on diameter)
Output Signal: 4 ~ 20mA、frequency
Power: 85~265VAC (50HZ or 60HZ) , 24VDC
Installation:compact, remote



KF700M Series
Mini Elctromagnetic Flowmeters

Performance Feature

Diameter: DN2~DN25
Electrodes: 316L
Medium: conductivity liquids
Medium :≥5μs/cm , softener water≥ 20μs/cm
Accuracy: ±2.0%RS
Velocity of flow: 0.3m/s -10m/s
Working temp.:-10°C~+60°C
Working pressure: 0.6MPa~1.0MPa
Protection: IP67
Output Signal: Pulse/Frequency
Power: 24VDC
Installation:compact, remote
Body material: Aluminium

KF510 Series
Paddlewheel Flowmeters

Performance Feature

Accuracy	1%FS, ±1.5%FS
Repeatability	±0.5%
Temperature	-20~ +65°C
External dimension	100x100mm
Installation method	Panel mount、compact type(DN10~DN50)
Power supply optional	DC24V, battery power
Output signal	4~20mA、Passive pulse
Communication optional	RS485
Alarm optional	High limit, low limit,totalizer(Batch controller)
Protection class	IP65
Consumption	2W