

“Sensing the pulse of industry”

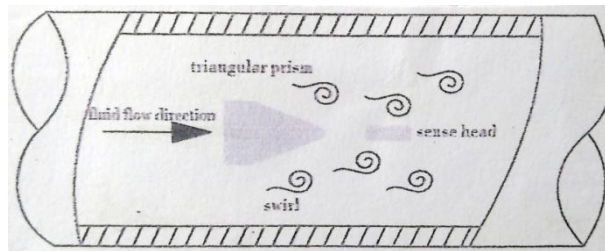
tekVorx TV01 Multivariable Vortex flow Sensors

Vortex flow sensors derive their name from a natural phenomenon of fluid dynamics. When a gas or relatively low viscosity liquid impinges on a non-streamlined body, the fluidic boundary layer can only cling to the contour of the body at very low flow rates. At a low Reynolds Number (Re) of around 2000, that is, a critical combination of low viscosity, high velocity and high density, the boundary layer separates from the body. Flow friction causes the boundary layer to form a rotational vortex, which is a detectable pressure pulse. With the **tekVorx** symmetrical and well-designed bluff body, vortices are formed in a well-defined and stable pattern, alternately on one side of the body, then on the other side. The frequency of the vortices are proportional to the mean velocity of the flow above $Re > 15,000$.

The **tekVorx** embodies a robust, highly reactive piezoelectric sensor, which is virtually immune to vibration. This detects the frequency of the vortices, which are processed in a **tekVorx** microprocessor.



Satellite photo of cloud vortices caused by a mountain (Courtesy of our friends at NASA)



tekVorx Operation Showing Simplified Construction



tekVorx TV01 In-line Flange



tekVorx TV01 Wafer Style



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Advantages of tekVorx Multivariable Flow Sensors

- + Entirely digital, no moving parts, flow sensor for mass and volumetric flow of liquids, gases and steam
- + Accuracy $< \pm 1\%$ of reading liquids, $< \pm 1.5\%$ gases and steam
- + Repeatability $\pm 0.1\%$ of reading
- + All **tekVorx** flow sensor calibrations are traceable to USA NIST and other international standards
- + Multivariable mass flow, volumetric flow, temperature and pressure sensing and display options
- + Solid state piezoelectric sensor provides high insensitivity to vibration
- + **tekVorx** output frequency is unaffected by changes in pressure, temperature and viscosity
- + Available in-line or wafer type 25 – 300mm (1” – 12”), insertion type 250 – 2000mm (10” – 80”)
- + Huge optional pressure ratings 10 - 40 bar g (145 - 580 psig) or 63 – 420 bar g (913 – 6089 psig)
- + Meets European Pressure Equipment Directive PED 97/23/EC Article 3, Sound Engineering Practice
- + Optional temperature ratings -20° C to + 350° C (-4°F to 662° F)
- + Flow turndowns typically > 10 : 1 to 40 : 1, size and media dependent
- + Efficient bluff body design produces lowest pressure loss and noise free, well defined vortices
- + High long term stability, no zero drift.
- + Power supply 12 – 24V dc or battery/solar powered
- + Intrinsically safe certified to Ex ib IIC T4, Flameproof to Ex d IIB T4
- + Outputs: scaled pulse, 4 – 20mA, RS 485, HART protocol options
- + Flanged or low cost wafer style connections, or hot tap insertion types
- + Manufactured strictly to ISO 9001 Quality Assurance

tekVorx TV01 Flow Sensors Specification

Accuracy:	$< \pm 1\%$ of reading for liquids for Reynolds Numbers $> 20,000$ $< \pm 1.5\%$ of reading for gases and steam for Reynolds Numbers $> 15,000$
Note:	All tekVorx flow sensors are calibrated against a gas flow primary standard, and are traceable to USA National Institute of Standards and Technology (NIST) and other international standards.
Pipe sizes:	25 – 300mm (1” – 12”) diameter in-line version 300 – 2000mm (12” – 80”) insertion version
Construction material:	AISI 316 or AISI 304 stainless steel. Other materials on request
Media temperature ranges:	- 20° to + 100° C (- 4° to + 212° F) - 20° to + 280° C (- 4° to + 536° F) - 20° to + 350° C (-4° to + 662° F)
Converter temperature:	-10° to + 55° C (+ 14° to + 131° F)
Maximum pressure:	10 bar g (145 psig) standard for all sizes.
Standard max pressure:	sizes 25 – 300mm (1” – 12”) max 10 bar g (145 psig), flanged DIN PN 10, ANSI 150 rf, JIS 10k or non-flanged wafer style
Optional pressure ratings:	15 bar g (218 psig), flanges DIN PN 16, ANSI 150 rf, JIS 16k or wafer style 25 bar g (362 psig, insertion tekVorx manually max 2 bar g (30 psig) . Insertion tekVorx available as hot tap with shut-off valve. 40 bar g (580 psig), flanges DIN PN40, ANSI 300 rf, JIS 40k, ANSI 600 rf 420 bar g (6089 psig), flanges DIN PN 420, ANSI 2500 rf, JIS 420k
Power supply, 2 outputs :	24V dc/600mA supply or external double 24 V dc battery, 2 outputs
Internal battery, no outputs:	internal 24V dc battery, no outputs.
Cable lengths:	for remote transmitters standard cable lengths are 5m (16 ft) or 10m (33 ft)
Converter material:	epoxy coated aluminium
Multivariable display:	7 digit LCD for instantaneous display, 8 digit for accumulated totals. Totalised gas mass flow, totalised standard or normal volumetric flow, standard or normal volumetric or mass flow rate, temperature, pressure
Optional outputs:	isolated 4 – 20mA for mass or volumetric flow into 900 Ohms max scaled pulsed output for mass or volumetric flow RS485 photoelectric isolation, HART protocol
Temperature compensation:	standard for saturated steam
Pressure compensation:	optional pressure sensors integrally mounted for mass flow of gases or superheated steam
Explosive atmospheres:	Intrinsically safe to Ex ia IIC T5, flameproof proof to Ex d IIC T4
Protection:	IP65 and NEMA 4X, max humidity 90%
Vibration protection:	1 g at 9.8 m/s ² (32 feet/s ²) in three mutually perpendicular axes.
European EMC:	Meets European EMC Conformity Standards EN 61326
European PED:	Meets Pressure Equipment Directive – Sound Engineering Practice

tekVorx TV01 Permanent Pressure Loss

The approximate permanent pressure loss may be calculated by the following formula:

$$\Delta P = [k \times \rho_a \times Q_a^2] / D^4$$

Where ΔP = permanent pressure loss kPa (0.01 bar)

k = constant dependent on liquid, gas/steam and units (see table below)

ρ_a = density at operating conditions (actual lb/ft³ or actual kg/m³)

Q_a = actual volumetric flow rate

for gases or steam = actual m³/h or actual ft³/m

for liquids gpm or lpm

D = internal pipe diameter (mm or inches)

k Constants:

Metric Units		USA Units	
k for liquids	k for gases/steam	k for liquids	k for gases/steam
0.50	125	0.000035	0.002

tekVorx TV01 Minimum Downstream Liquid Pressure

To avoid cavitation (vapour discharge from liquids) the flow ranges prescribed for the **tekVorx** should be observed, as well as ensuring a minimum downstream pressure is maintained. This can be accomplished by a downstream valve.

The minimum downstream pressure may be ascertained by using the smaller value of the following formula:

$$P = (2.9 \times \Delta P) + (P_v + 3.45 \text{ kPa absolute or } 0.5 \text{ psi absolute})$$

OR

$$P = (2.9 \times \Delta P) + (1.3 \times P_v)$$

Where P = static pressure at 5 diameters downstream of **tekVorx** (psig or kPa)

ΔP = pressure loss across the **tekVorx** (psi or kPa)

P_v = liquid vapour pressure at operating conditions (psi absolute or kPa absolute)

tekVorx TV01 In-Line Sensor Water Flow Ranges

Nominal Diameter		Water Flow Ranges	
		m ³ /h	gpm
mm	inches		
25	1.00"	1.4 - 12	4.8 - 53
32	1.25"	2.0 - 20	8.8 - 88
40	1.50"	3.2 - 36	14 - 158
50	2.00"	5.0 - 56	22 - 246
65	2.50"	8.2 - 96	36 - 422
80	3"	3 - 145	57 - 638
100	4"	20 - 224	88 - 986
125	5"	30 - 352	132 - 1550
150	6"	44 - 512	194 - 2253
200	8"	79 - 920	348 - 4048
250	10"	140 - 1200	616 - 5280
300	12"	175 - 2020	770 - 8888

tekVorx TV01 Insertion Sensor Water Flow Rates

For gases or steam consult **tekflo Sensors** or your Authorised Distributor

Nominal Diameter		Water Flow Ranges	
mm	inches	m3/h	gpm
300	12"	127 - 1650	560 - 7260
400	16"	226 - 2950	994 - 12980
500	20"	353 - 4600	1553 - 20240
600	24"	510 - 6620	2244 - 29130
800	30"	910 - 11800	4000 - 51920
1000	40"	1450 - 18500	6380 - 81400
1200	48"	2050 - 25650	9020 - 112900
1500	60"	3200 - 40300	14080 - 177300
2000	80"	5600 - 71400	24640 - 314200

tekVorx TV01 Air Flow Range Reference Conditions

Air flow rates are referenced at USA standard temperature and pressure (STP), 15° C, 1.01 bar a, 60°F, 14.7 psia).

All gas flow rates are at actual conditions am³/h (ACMH) and aft³/m (ACFM).

To convert gas at STP (SCMH and SCFM) to gas at actual conditions, the following formulae apply:

Metric Units:

$$ACMH = SCMH \times \left(\frac{273^\circ K + \text{operating temp } ^\circ C}{273^\circ K} \right) \times \frac{1.01 \text{ bar a}}{(1.01 + \text{operating pressure bar g})}$$

USA units:

$$ACFM = SCFM \times \left(\frac{460^\circ R + \text{operating temp } ^\circ F}{460^\circ R} \right) \times \frac{14.7 \text{ psia}}{(14.7 + \text{operating pressure psig})}$$

Note: The following ranges provided below are a guide. Air flow ranges are at 15° C (60° F). For an exact range and all gas/steam flow ranges for insertion sensors please consult **tekflo Sensors** or your local Authorised Distributor. Normal flow rate recommended to be at 70% max flow rate.

tekVorx TV01 In-Line Air Flow Ranges 25 – 40mm (1" – 1 1/2")

Media Pressure	Flow Range Min/Max	Nominal tekVorx Size					
		25mm / 1"		32mm / 1 1/4"		40mm / 1 1/2"	
		ACMH	ACFM	ACMH	ACFM	ACMH	ACFM
0 bar g 0 psig	min	17.0	10.0	26.0	15.0	32.0	19.0
	max	135	80.0	250	150	360	215
3.5 bar g 50 psig	min	7.00	4.00	11.0	7.00	15.0	9.00
	max	135	80.0	250	150	360	215
7 bar g 100 psig	min	5.00	3.00	9.00	5.00	12.0	7.00
	max	135	80.0	250	150	360	215
10 bar g 150 psig	min	4.00	2.50	7.00	4.50	10.0	6.00
	max	135	80.0	250	150	360	215
14 bar g 200 psig	min	4.00	2.50	7.00	4.50	10.0	6.00
	max	135	80.0	250	150	360	215
20 bar g 300 psig	min	4.00	2.50	7.00	4.50	10.0	6.00
	max	135	80.0	240	140	340	200
27 bar g 400 psig	min	4.00	2.50	7.00	4.50	10.0	6.00
	max	125	75.0	215	125	300	175
35 bar g 500 psig	min	4.00	2.50	7.00	4.50	10.0	6.00
	max	115	66.0	190	110	265	155

tekVorx TV01 In-Line Air Flow Ranges 50 – 150mm (2” – 6”)

Media Pressure	Flow Range Min/Max	Nominal tekVorx Size									
		50mm / 2”		80mm / 3”		100mm / 4”		125mm / 5”		150mm / 6”	
		ACMH	ACFM	ACMH	ACFM	ACMH	ACFM	ACMH	ACFM	ACMH	ACFM
0 bar g 0 psig	min	52.0	31.0	115	67.0	195	115	320	190	445	260
	max	595	350	1310	770	2250	1330	4180	2170	5110	3010
3.5 bar g 50 psig	min	25.0	15.0	55.0	32.0	95.0	55.0	155	90.0	215	125
	max	595	350	1310	770	2250	1330	3680	2170	5110	3010
7 bar g 100 psig	min	19.0	11.0	41.0	24.0	70.0	42.0	115	70.0	160	95.0
	max	595	350	1310	770	2250	1330	3680	2170	5110	3010
10 bar g 150 psig	min	16.0	9.50	35.0	20.0	59.0	35.0	100	60.0	135	80.0
	max	595	350	1310	770	2250	1330	3680	2170	5110	3010
14 bar g 200 psig	min	16.0	9.50	35.0	20.0	59.0	35.0	100	60.0	135	80.0
	max	595	350	1310	770	2250	1330	3680	2170	5110	3010
20 bar g 300 psig	min	16.0	9.50	35.0	20.0	59.0	35.0	100	60.0	135	80.0
	max	555	325	1220	720	2100	1240	3440	2025	4770	2810
27 bar g 400 psig	min	16.0	9.50	35.0	20.0	59.0	35.0	100	60.0	135	80.0
	max	485	285	1065	625	1830	1080	2990	1770	4150	2440
35 bar g 500 psig	min	16.0	9.50	35.0	20.0	59.0	35.0	100	60.0	135	80.0
	max	435	255	955	560	1640	965	2680	1580	3720	2190

tekVorx TV01 In-Line Air Flow Ranges 200 – 300mm (8” – 12”)

Pressure	Flow Min/Max	Nominal tekVorx Size					
		200mm / 8”		250mm / 10”		300mm / 12”	
		ACMH	ACFM	ACMH	ACFM	ACMH	ACFM
0 bar g 0 psig	min	770	435	1210	715	1740	1030
	max	8850	5210	13960	8220	20020	11780
3.5 bar g 50 psig	min	365	215	580	340	830	490
	max	8850	5210	13960	8220	20020	11780
7 bar g 100 psig	min	275	165	435	255	625	365
	max	8850	5210	13960	8220	20020	11780
10 bar g 150 psig	min	230	135	365	215	520	310
	max	8850	5210	13960	8220	20020	11780
14 bar g 200 psig	min	230	135	365	215	520	310
	max	8850	5210	13960	8220	20020	11780
20 bar g 300 psig	min	230	135	365	215	520	310
	max	8260	4860	13020	7670	18680	11000
27 bar g 400 psig	min	230	140	365	215	520	310
	max	7180	4230	11330	6670	16250	9560
35 bar g 500 psig	min	230	140	365	215	520	310
	max	6440	3790	10150	5980	14550	8570

tekVorx TV01 In-Line Saturated Steam Flow Ranges 25 – 40mm (1" – 1 1/2")

Media Pressure	Flow Range Min/Max	Nominal tekVorx Size					
		25mm / 1"		32mm / 1 1/4"		40mm / 1 1/2"	
		kg/h	lb/h	kg/h	lb/h	kg/h	lb/h
1 bar g 15 psig	min	16.0	35.0	27.0	60.0	38.0	82.0
	max	155	345	290	630	420	920
1.7 bar g 25 psig	min	18.0	40.0	31.0	67.0	43.0	94.0
	max	205	450	375	830	550	1210
4 bar g 50 psig	min	23.0	50.0	38.0	84.0	54.0	120
	max	325	715	595	1310	865	1910
7 bar g 100 psig	min	30.0	66.0	50.0	110	71.0	160
	max	555	1225	1020	2250	1490	3270
10 bar g 150 psig	min	36.0	79.0	59.0	130	84.0	190
	max	785	1725	1440	3170	2100	4620
14 bar g 200 psig	min	41.0	89.0	68.0	150	95.0	210
	max	1010	2230	1860	4090	2700	5960
20 bar g 300 psig	min	49.0	110	82.0	180	115	260
	max	1470	3230	2700	5950	3930	8650
28 bar g 400 psig	min	57.0	125	96.0	210	140	300
	max	1930	4250	3540	7810	5160	11400
35 bar g 500 psig	min	71.0	160	120	270	170	370
	max	2400	5280	4400	9700	6410	14200

tekVorx TV01 In-Line Saturated Steam Flow Ranges 50 – 125mm (2" – 5")

Media Pressure	Flow Range Min/Max	Nominal tekVorx Size									
		50mm / 2"		65mm / 2 1/2"		80mm / 3"		100mm / 4"		125mm / 5"	
		kg/h	lb/h	kg/h	lb/h	kg/h	lb/h	kg/h	lb/h	kg/h	lb/h
1 bar g 15 psig	min	62.0	140	98.0	220	135	300	235	515	385	840
	max	685	1520	1100	2430	1510	3330	2600	5750	4260	9400
1.7 bar g 25 psig	min	71.0	160	115	250	155	345	270	590	440	965
	max	900	1990	1440	3180	1990	4370	3420	7530	5590	12300
4 bar g 50 psig	min	89.0	200	145	315	195	430	340	740	550	1210
	max	1430	3140	2290	5030	3150	6950	5400	12000	12100	19500
7 bar g 100 psig	min	120	260	190	415	255	565	440	970	720	1590
	max	2450	5390	3920	8650	5400	11900	9280	20500	15200	33500
10 bar g 150 psig	min	140	305	225	490	310	670	525	1150	860	1880
	max	3450	7610	5530	12200	7610	16800	13100	28900	21400	47300
14 bar g 200 psig	min	160	350	260	590	345	760	595	1310	970	2140
	max	4460	9820	7140	15800	9820	21700	16900	37300	27700	61000
20 bar g 300 psig	min	190	420	305	670	415	915	715	1580	1170	2580
	max	6470	14300	10400	22900	14300	31400	24460	54100	40100	88400
28 bar g 400 psig	min	230	490	360	780	490	1100	840	1850	1370	3020
	max	8500	18800	13700	24900	18700	41300	32300	71100	52800	11700
35 bar g 500 psig	min	280	610	445	975	610	1350	1050	2300	1710	3800
	max	10600	23300	17000	31000	23300	51300	40100	88400	65500	145000

tekVorx TV01 In-Line Saturated Steam Flow Ranges 150 – 300mm (6” – 12”)

Pressure	Flow Min/Max	Nominal tekVorx Size							
		150mm / 6” kg/h lb/h		200mm / 8” kg/h lb/h		250mm / 10” kg/h lb/h		300mm / 12” kg/h lb/h	
1 bar g 15 psig	min max	530 5900	1170 13200	915 10300	2020 22600	1440 16200	3180 35600	2070 23200	4560 51000
1.7 bar g 25 psig	min max	610 7750	1350 17100	1050 13500	2310 29600	2080 21200	4570 46700	2370 30400	5220 66900
4 bar g 50 psig	min max	760 12300	1680 27100	1320 21300	2910 46800	2080 33500	4600 73800	2980 48000	6570 106000
7 bar g 100 psig	min max	1000 21100	2200 46400	1730 36500	3810 80400	2800 57500	6000 127000	3900 82400	8600 182000
10 bar g 150 psig	min max	1200 29800	2610 65700	2050 51500	4530 114000	3240 81200	7200 179000	4640 117000	10300 257000
14 bar g 200 psig	min max	1350 38400	2970 84600	2330 66400	5140 147000	3670 105000	8100 231000	5270 151000	11700 331000
20 bar g 300 psig	min max	1620 55700	3580 123000	2810 96400	6190 213000	4450 152000	9800 335000	6350 218000	14000 481000
28 bar g 400 psig	min max	1910 73200	4200 162000	3300 127000	7260 280000	5200 200000	11500 441000	7450 287000	16500 632000
35 bar g 500 psig	min max	2370 91000	5210 200500	4100 158000	9030 348000	6460 249000	14300 548000	9260 356000	20500 785000

tekVorx TV01 Sensor Straight Pipe Run Requirements

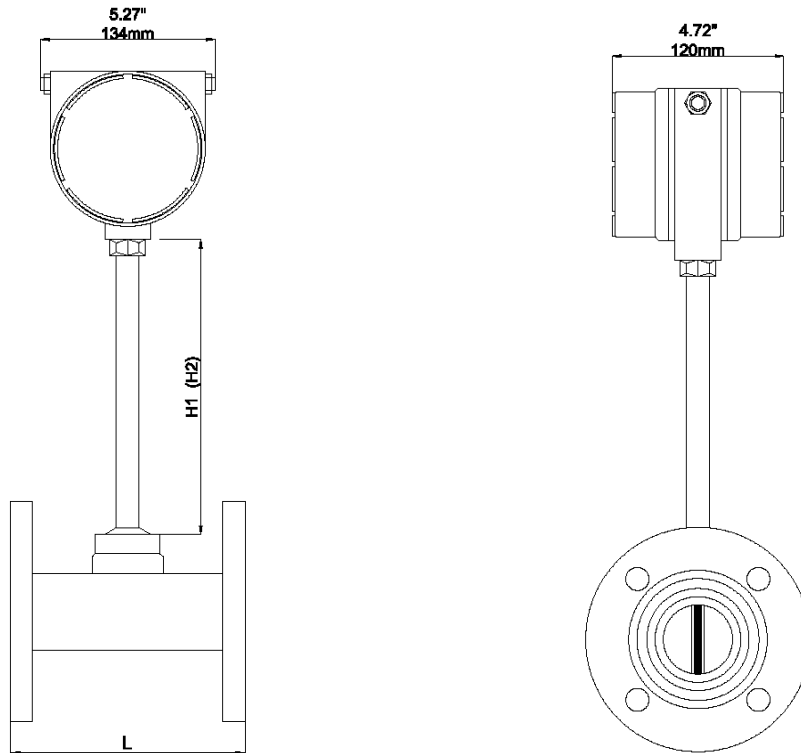
Upstream Obstruction	Min Straight Pipe Diameters Without Flow Straightener Upstream	Min Straight Pipe Diameters With Flow Straightener Upstream	Min Straight Pipe Diameters Pipe Diameters Downstream
Bend Preceded by > 9D Straight	20 D	10 D	5 D
Max 10° Pipe Reducer	15 D	10 D	5 D
2 Bends in Plane Preceded by > 9D Straight	30 D	15 D	5 D
2 Bends Out of Plane	40 D	20 D	5 D
Upstream Tee	20 D	10 D	5 D
Fully Open Valve	30 D	15 D	5 D
Throttling Control Valve	50 D	25 D	5 D

Note: Control valves should be downstream, with a minimum 5 D pipe length after the sensor

tekVortex In-Line Flanged Version Dimensional Drawings

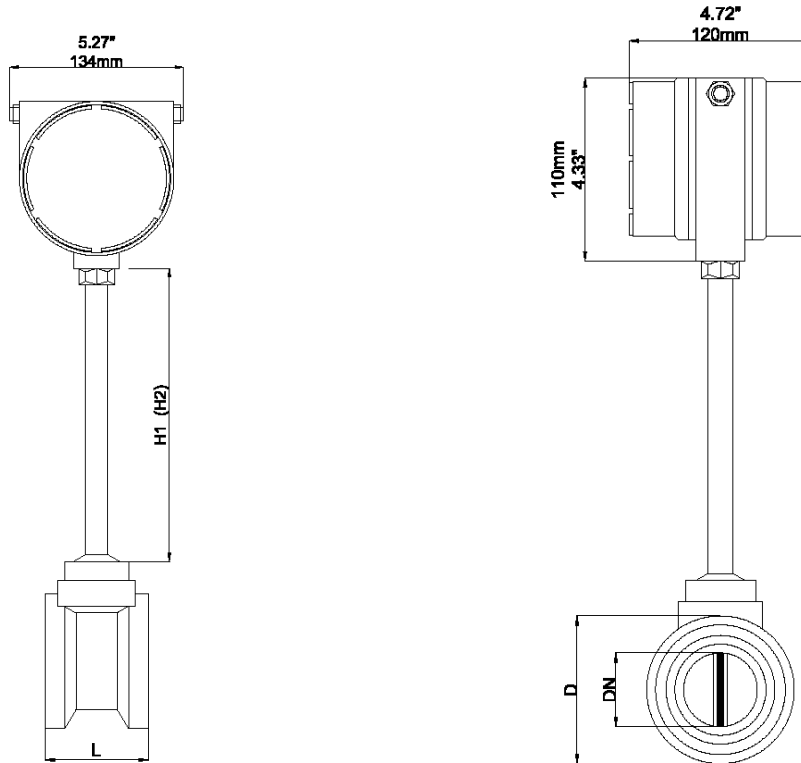
Note 1: Dimension H1 is applicable for temperatures - 20° to + 280° C (- 4° to + 536° F)
 Dimension H2 is applicable for temperatures - 20° to + 100° C (- 4° to + 212° F)

Note 2: Approximate weights for PN/JIS 60 – 420 and ANSI 600 – 2500 flanged versions consult **tekflo Sensors** or your nearest Authorised Distributor.



Nominal Diameter		Dimensions				Approximate Weights					
mm	inches	L		H1		H2		ANSI 150 PN/JIS 10		ANSI 300 PN/JIS16/40	
		mm	ins	mm	ins	mm	ins	kg	lb	kg	lb
25	1.00"	180	7.08"	260	10.2"	190	7.48"	7.2	15.8	8.4	18.5
32	1.25"	180	7.08"					7.9	17.6	9.7	21.3
40	1.50"	180	7.08"					8.7	19.1	11.0	24.2
50	2.00"	180	7.08"					10.7	23.5	12.3	27.1
65	2.50"	200	7.87"					13.5	29.4	16.3	35.9
80	3"	200	7.87"					15.9	35.0	20.0	3.9
100	4"	220	8.66"					21.6	47.6	30.3	66.6
125	5"	220	8.66"					27.8	60.2	40.7	89.5
150	6"	240	9.45"					33.6	73.9	50.9	112
200	8"	240	9.45"					51.8	114	76.4	168
250	10"	280	11.0"					81.4	179	117	258
300	12"	320	12.6"					127	279	176	387

tekVorx Wafer Style Dimensional Drawings

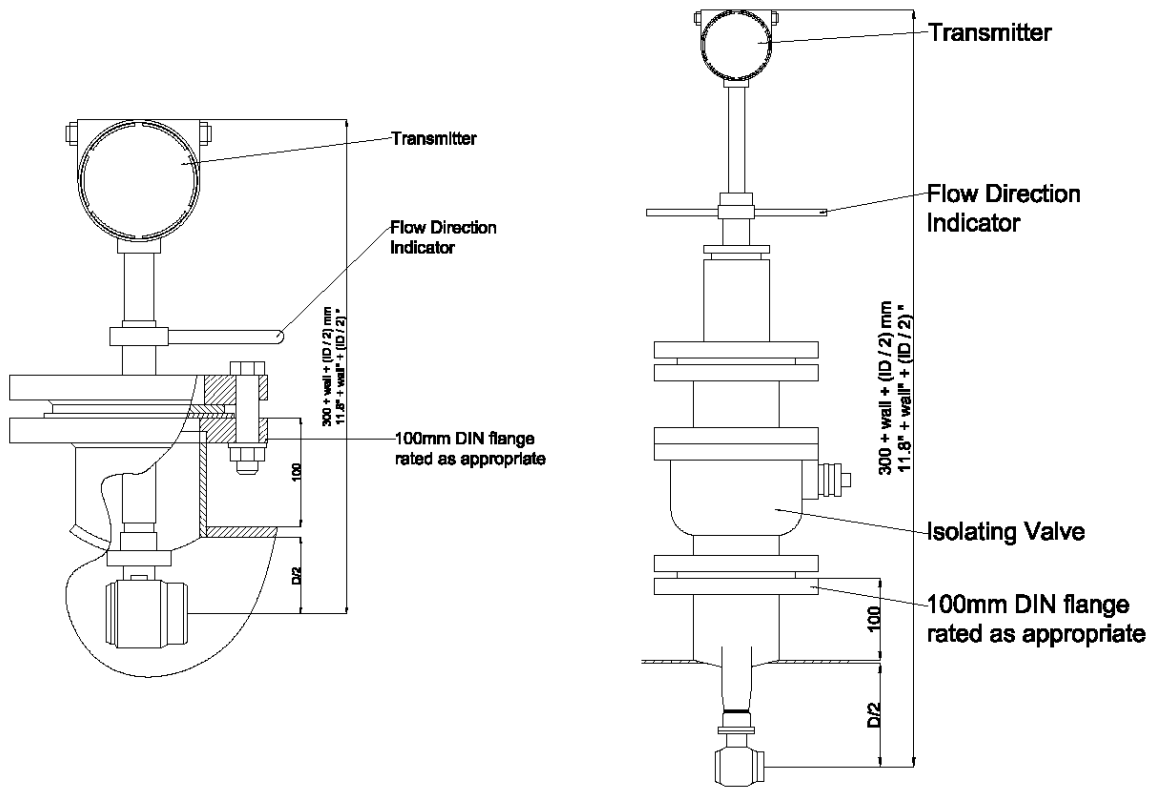


Nominal Diameter		Dimensions				Approx. Weights			
mm	inches	L		H1		H2		kg	lb
		mm	ins	mm	ins	mm	ins		
25	1.00"	80	3.15"	260	10.25"	190	7.48"	5.8	12.8
32	1.25"	80	3.15"	↓	↓	↓	↓	6.2	13.6
40	1.50"	80	3.15"					6.4	14.1
50	2.00"	80	3.15"					7.1	15.6
65	2.50"	80	3.15"					8.8	19.4
80	3"	80	3.15"					9.3	20.5
100	4"	80	3.15"					11.6	25.5
125	5"	85	3.35"					13.4	29.5
150	6"	90	3.54"					15.1	33.2
200	8"	105	4.13"					20.7	45.5
250	10"	120	4.72"					30.9	68.0
300	12"	135	5.32"	48.2	106				

Note 1: Dimension H1 is applicable for temperatures - 20° to + 280° C (- 4° to + 536° F)
 Dimension H2 is applicable for temperatures - 20° to + 100° C (- 4° to + 212° F)

Note 2: Wafer dimensions DN and D are dependent on the flange type between which they are bolted.

tekVorx Insertion Sensor Dimensional Drawings



Insertion **tekVorx** with Manual Insert
No Hot Tap Ball Valve

Insertion **tekVorx** with Manual Insert
Including Hot Tap Ball Valve

Note: Maximum recommended insertion under pressure 2 bar g (30 psig). Max operational pressure 25 bar g (362 psig)

tekVorex TV01 Ordering Code

Basic type Example :	tekVorex TV01	A	300	A	3	P	4	F	2	1	A	2	A	2
Fluid Type	Liquid	L												
	Gas / Air	G												
	Saturated Steam	A												
	Superheated Steam	U												
Internal Pipe Diameter mm	25 mm (1")		0025											
	300 mm (12")		0300											
Transmitter Option	Integral Transmitter			A										
	Remote Transmitter with 10m (33 ft) cable			B										
Transmitter Output and Features All Transmitter come with LCD	No Output				1									
	4-20mA, scaled pulse				2									
	4-20mA, scaled pulse, RS-485				3									
	4-20mA, scaled pulse, HART				4									
Pressure Comp for mass flow gases & superheated steam is standard	No Pressure Compensation					N								
	Pressure Compensation					P								
	Note : Temperature compensation for saturated steam is standard													
Transmitter Display Units (See Range Tables)	Metric units & °C, mass rate kg/h & totals kg						1							
	Metric units & °C, vol rate nm3/hr & totals nm3						2							
	USA units & °F, mass rate lbs/h & totals lbs						3							
	USA units & °F, vol rate scfh and totals sft3						4							
Explosive Atmospheres	Non Ex (Safe Environment)								N					
	Intrinsically safe to Ex ib IIC T3-T4								I					
	Flameproof to Ex d IIC T3-T4								F					
Process Connections Style	Wafer style									1				
	Flanged connections									2				
	Insertion style - manual insert (non hot tap)									3				
	Insertion style - hot tap with isolation valve Notes : Insert types inserted at max 2bar (30 psig) but installed max pressure is 25bar (362 psig)										4			
Process Connections type Note : Wafer style only available in ANSI 150, PN 10 JIS 10K ratings	ANSI 150 rf = 1			ANSI 300 rf = 2				ANSI 600 rf = 3						
	ANSI 2500 rf = 4			DIN PN10 = 5				DIN PN16 = 6						
	DIN PN25 = 7			DIN PN40 = 8				DIN PN420 = 9						
	JIS 10K = 10			JIS 16K = 11				JIS 25K = 12						
	JIS 40K = 13			JIS 420K = 14										
	Other (Specify after Order Code) = 15													
Flow Straightener Options	No flow straightener										A			
	With flow straightener										B			
Media Temperature Rating	-.20° to 100°C (-4° to +212°F)											1		
	-.20° to 280°C (-4° to +535°F)											2		
Media Contacted Material	AISI 316 stainless steel												A	
	AISI 304 stainless steel												B	
	Special details stated after Ordering Code												S	
Power Supply	24 vdc External Supply													1
	24 vdc External and Internal Battery with 2 outputs													2
	24 vdc Internal Battery													3

tekVorx Enquiry Form

Please fill in and e-mail to Tekflo Sensors or your local Authorised Distributor

Customer's Name, Project Name, & Location:						
Detail	Sensor 1	Sensor 2	Sensor 3	Sensor 4	Sensor 5	Sensor 6
Quantity						
Media Type						
ADD any special notes, such as Dirty (D), Clean (C), Air Bubbles (AB), is % concentration required, liquid viscosity. Is the flow sensor to be used in an area of magnetic fields (Yes / No):						
Multivariable Processor Required Temp, Pressure, Mass Flow (Yes / No)						
Mass or Volume Flow Rate With Units						
Cable Length for Remote Transmitters 10m (33 ft). If special length required please state length.						
Display Required with Metric (M) or USA Units (U) Or No Display (ND)						
Pressure Range and Units						
Temperature Range and Units						
Process Connections Flanged (F) or Wafer Style (W). State Type of Connections Required						
Explosive Atmosphere and Type Required Intrinsically Safe (IS) / Flameproof (FP)						
Density or Specific Volume, stating actual, normal or standard conditions						
Pipe Material and Schedule or ID / Wall Thickness. Specify mm or inches						
Preferred Flanges						
4-20mA, Scaled Pulse Outputs (Yes / No)						
4-20mA, Scaled Pulse, RS 485 Outputs (Yes / No)						
4-20mA, Scaled pulse, HART Protocol (Yes / No)						
Power Supply: 1) 24 Vdc External Supply 2 Outputs 2) External 24 Vdc 2 Outputs 3) Internal 24 Vdc Battery, No outputs						

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Specifications are subject to change without notice