



KTM Series



FEATURES

- NRTL - UL 61010-1, CSA-C22.2
- CE - LVD(2014/35/EU), EMC(2014/30/EU), RoHS(2011/65/EU)
- TRCU - TP TC(004/2011), TP TC(020/2011)
- Wide flow range with high accuracy across both low and high flow rates
- Bi-directional flow measurement capability
- Chemically resistant PEF or PTFE liner options available
- Wide selection of electrode materials for various process applications
- Exceptional long-term stability and measurement accuracy
- Suitable for low-conductivity fluids
- Various housing material options available
- Reliable and accurate operation even in high-noise and high-vibration environments

APPLICATIONS

- ▶ Chemical and Other Process Industries
 - Injecting fibric products with adhesiveness
 - Emulsified liquid including latex and emulsion.
- ▶ Food and Beverage
 - Hygienic blending, injection, and quantitative distribution
 - Cream and dairy products (e.g. fat, milk, cheese, yogurt with particles of fruit)
- ▶ Mining & Minerals
 - Similar applications to cement slurry
- ▶ Water & Wastewater
 - Water mixed with fat, oil, and grease
- ▶ Pulp & Paper Industry
 - Fibrous products in chemically aggressive nature
- ▶ Pharmaceutical Industry

KTM Series General Specifications

DESCRIPTION		SPECIFICATION	
		KTM-800 Series	KTM-900 Series
Type		Integral	Remote
Size		6A (1/4") - 2000A (80")	
Process connection		Flange type - Standard JIS10K RF (Options. ANSI 150#, DIN 16 bar)	
Measuring range		0.1 m/s – 10 m/s	
Measuring accuracy		0.25% of mv + 1 mm/s (Option)	0.35% of mv + 1 mm/s
		0.35% of mv + 1 mm/s	
Process temperature		PTFE liner: -10...+160°C / +14...+320°F Hard rubber liner: -10...+70°C / +14...+158°F Ceramic liner: -10...+150°C / +14...+302°F	
Ambient temperature		-20 °C ~ 60 °C	
Conductivity		≥ 3 μS/cm	
Power supply		AC 85-250 V (50~60) Hz DC 24 V	
		Battery 2 x 3.6 V (Option)	-
Power consumption		15 VA	
Display	AC, DC	• Flow rate : 5-digit Display • Total : 9-digit Display / With Backlight	
	Battery	• Flow rate : 5-digit Display • Total : 9-digit Display	-
Output	AC, DC	• Analog : DC 4-20 mA • Pulse : DC (8~30) V (Open collector) • Digital : RS-485, HART	
	Battery	Bluetooth Communication	-
Explosion proof grade		Ex db IIC T5 Gb / Ex tb IIIC T100 Db	
Ingress protection grade		IP67	

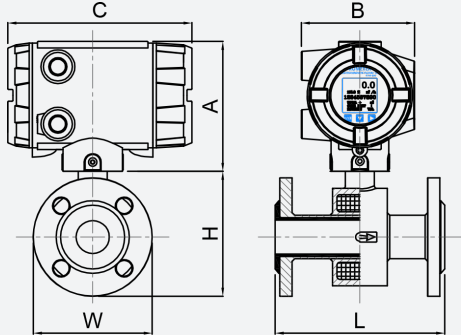
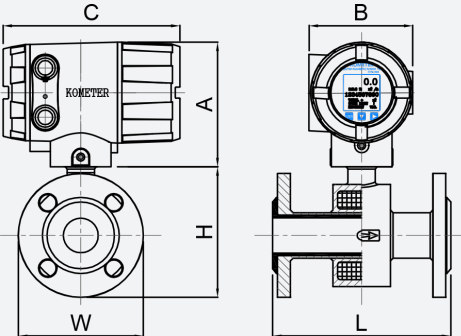
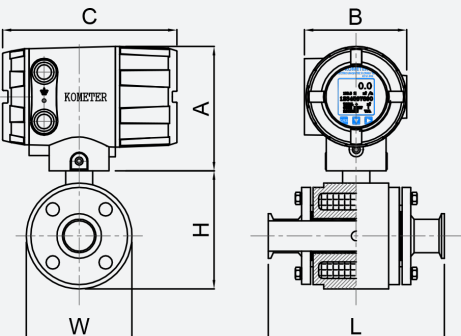
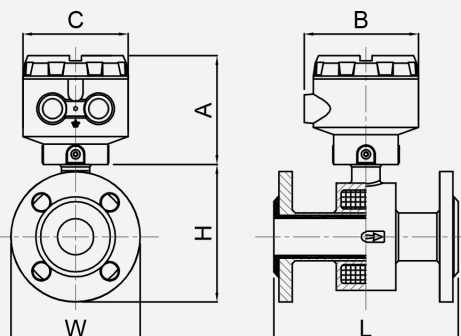
KTMS Series General Specifications

DESCRIPTION		SPECIFICATION
Type		Integral
Size		10A (0.5S) - 100A (4S)
Process connection		Sanitary Tri-clamp type
Measuring range		0.1 m/s – 10 m/s
Measuring accuracy		0.25% of mv + 1 mm/s (Option)
		0.35% of mv + 1 mm/s
Process temperature		PTFE liner: -10...+160°C / +14...+320°F
Ambient temperature		-20 °C ~ 60 °C
Conductivity		≥ 3 μS/cm
Power supply		AC 85-250 V (50~60) Hz DC 24 V
		Battery 2 x 3.6 V (Option)
Power consumption		15 VA
Display	AC, DC	• Flow rate : 5-digit Display • Total : 9-digit Display / With Backlight
	Battery	• Flow rate : 5-digit Display • Total : 9-digit Display
Output	AC, DC	• Analog : DC 4-20 mA • Pulse : DC (8~30) V (Open collector) • Digital : RS-485, HART
	Battery	Bluetooth Communication
Ingress protection grade		IP67

MODEL CODE

MODEL	SUFFIX CODES	DESCRIPTION
KTM		Electromagnetic flowmeter
Installation type	-800	Integral type
	-900	Remote type
	S-500	Sanitary Tri-clamp type
Classification by connection size	-□	6A (1/4") - 2000A (80")
Classification by electrode material	-S	SUS316L
	-T	Titanium
	-P	Platinum / Iridium
	-A	Tantalum
	-H	Hastelloy-C
Classification by lining material	-T	PTFE, PEF
	-H	Hard rubber
	-C	Ceramic
Classification by ground ring material	-S	SUS316
	-O	SUS316L
	-T	Titanium
	-P	Platinum / Iridium
	-A	Tantalum
	-H	Hastelloy-C

DIMENSIONS

MODEL	DRAWING	SIZE
Compact version : Standard / KTM-800		A = 140 mm B = 120 mm C = 202 mm Total height = H + A
Compact version : Explosion-proof / KTM-800-Ex		A = 155 mm B = 135 mm C = 219 mm Total height = H + A
Compact version : Sanitary / KTMS-500		A = 140 mm B = 120 mm C = 202 mm Total height = H + A
Remote version : KTM-900		A = 132 mm B = 124 mm C = 114 mm Total height = H + A

1. Compact version: Standard / KTM-800

Nominal size DN		DIMENSIONS [mm]			WEIGHT [kg]
mm	inch	L	H	W	
6	1/8	200	130	80	5
8	1/4	200	130	85	5
10	3/8	200	130	90	6
15	1/2	200	132.5	95	6
20	3/4	200	137.5	100	6
25	1	200	145	125	7
32	1-1/4	200	162.5	140	9
40	1-1/2	200	172.5	150	10
50	2	200	187.5	165	12
65	2-1/2	200	202.5	185	17
80	3	200	220	200	17
100	4	250	230	220	22
125	5	250	270	250	24
150	6	300	302.5	285	35
200	8	350	352.5	340	45
250	10	400	407.5	395	84
300	12	500	460	445	102
350	14	500	517.5	505	123
400	16	600	572.5	565	147
450	18	600	622.5	615	212
500	20	600	675	670	229
600	24	600	745	780	252
700	28	700	892	895	352
800	32	800	1002.5	1015	462
1000	40	1000	1182.5	1230	690
1200	48	1200	1397.5	1405	787
1400	56	1400	1610	1630	1260
1600	64	1600	1810	1830	1500
1800	72	1800	2017.5	2045	1700
2000	80	2000	2227.5	2265	2000

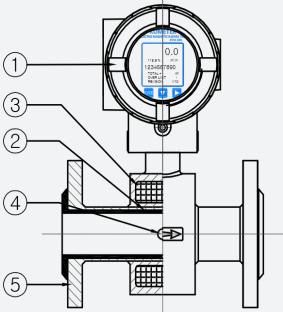
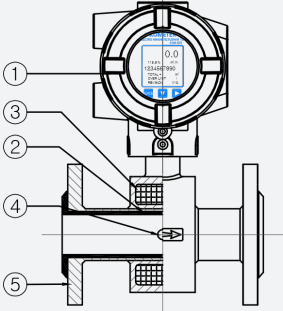
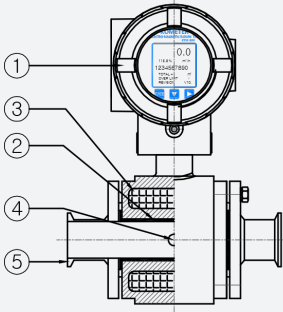
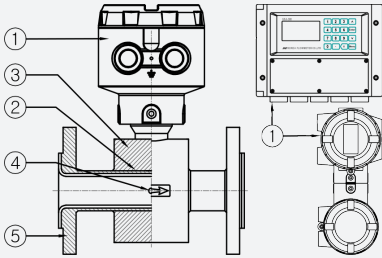
2. Remote version: KTM-900

Nominal size DN		DIMENSIONS [mm]			WEIGHT [kg]
mm	inch	L	H	W	
6	1/8	200	130	80	5
8	1/4	200	130	85	5
10	3/8	200	130	90	6
15	1/2	200	132.5	95	6
20	3/4	200	137.5	100	6
25	1	200	145	125	7
32	1-1/4	200	162.5	140	9
40	1-1/2	200	172.5	150	10
50	2	200	187.5	165	12
65	2-1/2	200	202.5	185	17
80	3	200	220	200	17
100	4	250	230	220	22
125	5	250	270	250	24
150	6	300	302.5	285	35
200	8	350	352.5	340	45
250	10	400	407.5	395	84
300	12	500	460	445	102
350	14	500	517.5	505	123
400	16	600	572.5	565	147
450	18	600	622.5	615	212
500	20	600	675	670	229
600	24	600	745	780	252
700	28	700	892	895	352
800	32	800	1002.5	1015	462
1000	40	1000	1182.5	1230	690
1200	48	1200	1397.5	1405	787
1400	56	1400	1610	1630	1260
1600	64	1600	1810	1830	1500
1800	72	1800	2017.5	2045	1700
2000	80	2000	2227.5	2265	2000

3. Compact version : Sanitary / KTMS-500

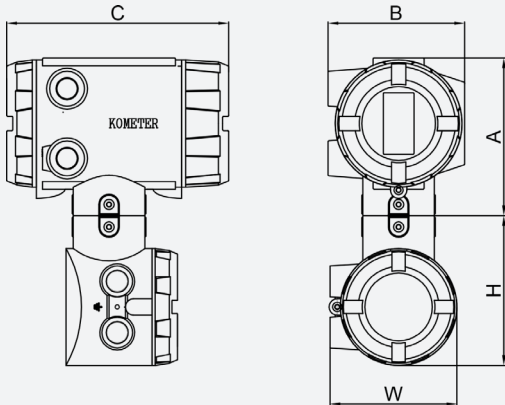
Nominal size DN		DIMENSIONS [mm]			WEIGHT [kg]
mm	inch	L	H	W	
10	1/2	180	42.5	85	5
15	3/4	180	42.5	85	5
25	1	180	42.5	85	6
40	1-1/2	200	55	120	6
50	2	220	70	140	6
65	2-1/2	220	70	150	7
80	3	240	80	160	9
100	4	265	95	190	10

MATERIAL

MODEL	DRAWING	DESCRIPTION	MATERIAL	
			STANDARD	OPTION
Compact version : Standard / KTM-800		① Indicator	Die-cast aluminum	
		② Housing	Carbon steel	SUS304
		③ Flange	Carbon steel	SUS304
		④ Lining	PEF, PTFE, Hard rubber	
		⑤ Electrode	Hastelloy-C	Platinum Titanium Tantalum
Compact version : Explosion-proof / KTM-800-Ex		① Indicator	Die-cast aluminum	
		② Housing	Carbon steel	SUS304
		③ Flange	Carbon steel	SUS304
		④ Lining	PEF, PTFE, Hard rubber	
		⑤ Electrode	Hastelloy-C	Platinum Titanium Tantalum
Compact version : Sanitary / KTMS-500		① Indicator	Die-cast aluminum	
		② Housing	Carbon steel	SUS304
		③ Flange	Carbon steel	SUS304
		④ Lining	PEF, PTFE, Hard rubber	
		⑤ Electrode	Hastelloy-C	Platinum Titanium Tantalum
Remote version : KTM-900		① Indicator	Die-cast aluminum	
		② Housing	Carbon steel	SUS304
		③ Flange	Carbon steel	SUS304
		④ Lining	PEF, PTFE, Hard rubber	
		⑤ Electrode	Hastelloy-C	Platinum Titanium Tantalum

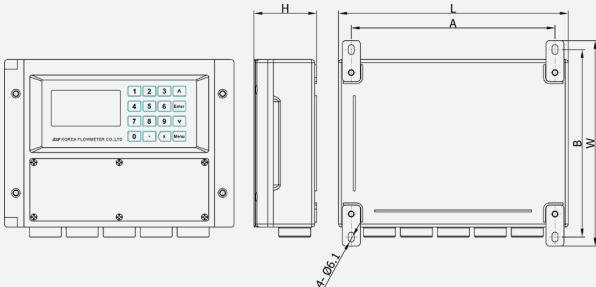
■ REMOTE INDICATOR SPECIFICATIONS

1. Pipe mount type

DESCRIPTION	SPECIFICATION	DRAWING	SIZE
Display	- Flow rate : 5-digit Display - Total : 9-digit Display / With Backlight		A = 154 mm
Output	- Analog : DC 4-20 mA - Pulse : DC (8~30) V (Open collector) - Digital : RS-485 or HART		B = 134 mm
Cable type	2P x 2C - Double Shield		C = 217 mm
Cable length	Standard 10 m		D = 146 mm
Cable entry	1/2" NPT (Standard) - M20 x 1.5 (Optional)		W = 125 mm

✓ Please refer to the Technical Data Sheet for remote transmitter installation.

2. Wall mount type

DESCRIPTION	SPECIFICATION	DRAWING	SIZE
Display	- Flow rate : 5-digit Display - Total : 9-digit Display / With Backlight		A = 204 mm
Output	- Analog : DC 4-20 mA - Pulse : DC (8~30) V (Open collector) - Digital : RS-485 or HART		B = 187 mm
Cable type	2P x 2C - Double Shield		L = 230 mm
Cable length	Standard 10 m		H = 68 mm
Cable entry	1/2" NPT (Standard) - M20 x 1.5 (Optional)		W = 205 mm

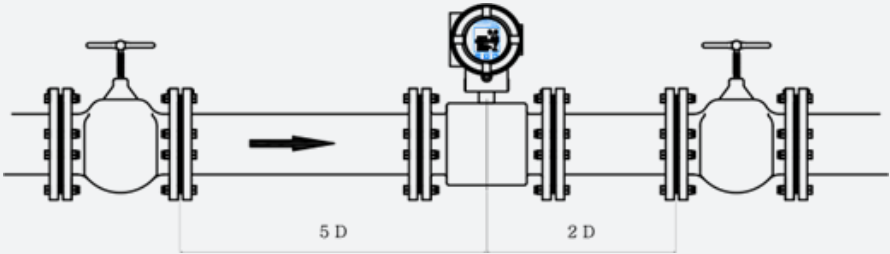
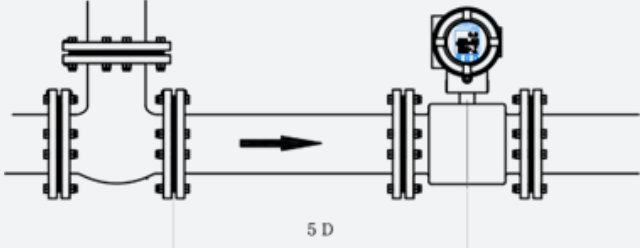
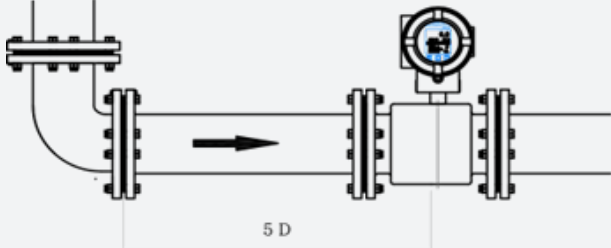
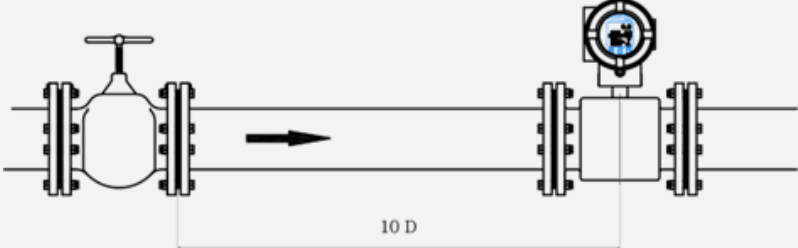
✓ Please refer to the Technical Data Sheet for remote transmitter installation.

MEASURING RANGE

SIZE		FLOW RANGE					
		EXTENDED Min.		Min.		Max.	
		Velocity [m/s]	Flow rate [m³/h]	Velocity [m/s]	Flow rate [m³/h]	Velocity [m/s]	Flow rate [m³/h]
6A	1/8B	0.03	3 (L/h)	0.1	10 (L/h)	10	1000 (L/h)
8A	1/4B		6 (L/h)		18 (L/h)		1800 (L/h)
10A	3/8B		0.008		0.028		2.826
15A	1/2B		0.019		0.063		6.358
20A	3/4B		0.034		0.113		11.30
25A	1B		0.053		0.176		17.66
32A	1-1/4B		0.086		0.289		28.93
40A	1-1/2B		0.135		0.452		45.21
50A	2B		0.211		0.706		70.65
65A	2-1/2B		0.358		1.194		119.3
80A	3B		0.542		1.808		180.8
100A	4B		0.84		2.826		282.6
125A	5B		1.32		4.415		441.5
150A	6B		0.90		6.358		635.8
200A	8B		3.39		11.30		1 130
250A	10B		5.29		17.66		1 766
300A	12B		7.63		25.43		2 543
350A	14B		10.4		34.61		3 461
400A	16B		13.6		45.21		4 521
450A	18B		17.2		57.22		5 722
500A	20B		21.2		70.65		7 065
600A	24B		30.5		101.7		10 173
700A	28B		41.5		138.4		13 847
800A	32B		54.2		180.8		18 086
900A	36B		68.6		228.9		22 890
1000A	40B		84.7		282.6		28 260
1200A	48B		122.0		406.9		40 694
1400A	56B		166.1		553.8		55 389
1600A	64B		217.0		723.4		72 345
1800A	72B		274.6		915.6		91 562
2000A	80B		339.1		1 130.4		113 040

■ INSTALLATION GUIDELINES

✓ To ensure accurate flow measurement, adequate upstream and downstream straight pipe runs should be provided in accordance with the piping configuration.

Classification	Pipe configuration
By pass	
Tee	
90° Bend	
Horizontal	
Reducer/Expansion pipe	