



ALCM-DT & ALCM-ST

Model ALCM Series

SMARTMEASUREMENT's ALCM-DT and ALCM-ST flowmeters employ unique tube arrangements for applications requiring very low mass flow measurement. The delta-shaped measuring tubes are used for $\frac{1}{8}$ "~ 1" (3-25mm) line sizes while a straight tube arrangement is employed for 2"~3" (50~80mm) lines. The delta, or triangular tube geometry of the ALCM-DT allows it to measure mass flows as little as 5 kg/hr. In applications where lower pressure drops are a critical criteria, the ALCM-ST, is nearly a straight tube with a slight bend to minimize the fluid shear stress in the flow tube. This allows the ALCM-ST to obtain significantly lower pressure drops versus similarly sized Coriolis meters.

All Coriolis flow meters in the ALCM family employ an easy-to-read color OLED display that can be configured to display either mass or volumetric flow rates in a variety of user-selectable engineering units as well as density, temperature, and totalized flows. Our ALCM family of Coriolis mass flowmeters provide a highly accurate, compact instrument that can measure flow, density, and temperature in a single package that has lower cost, lower pressure differential and a more compact design versus competitive Coriolis-technologies.

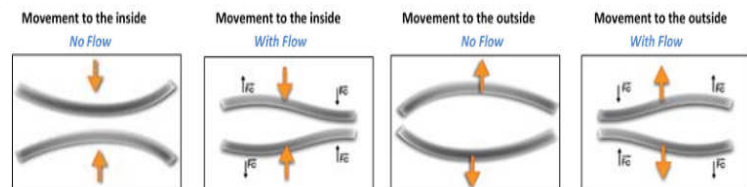


ALCM-DT



ALCM-ST

- Suitable for aggressive and contaminated media
- Measurement of mass flow, density, temperature and volume flow
- Very low pressure drop with ALCMST in 50 and 80mm sizes
- Excellent low flows performance using the ALCMDT
- Operation up to+ 662 °F (350 °C)
- Individual 8-point-calibration including report
- EX protection (optional) -UL/CUL/CSA

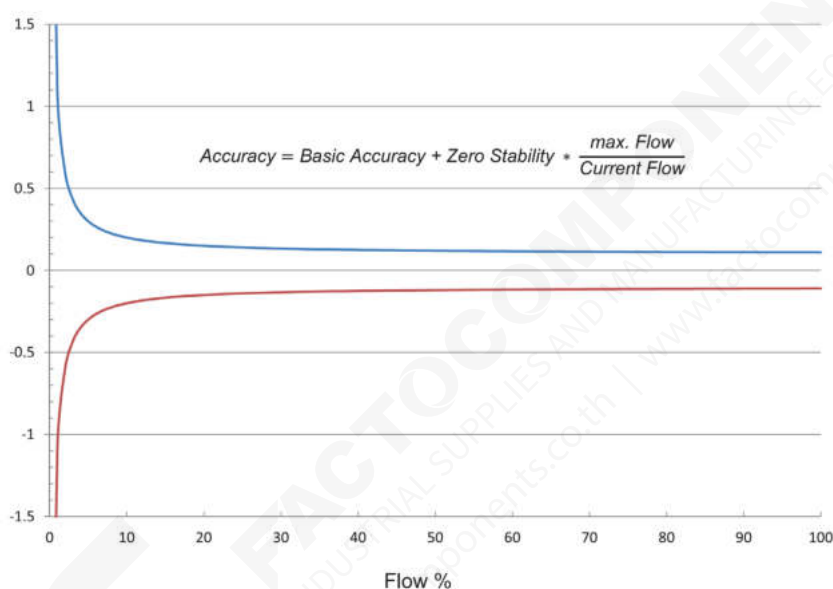


- Flow Range: 12 ~ 900,000 kg/hr.
(26 ~ 2,000,000Lb/hr.)
- Line Sizes: 3~200 mm ($\frac{1}{8}$ ~ 8")
- Process Connections: Flanged (ANSI, DIN, Tri-Clamp®)
- Tube geometry: Delta-Tube or Straight Tube
- Accuracy: $\pm 0.5\%$ of reading (std),
 0.2% or 0.1% (opt)
- Repeatability: $\pm 0.075\%$ of reading
- Frequency: 10-2000 Hz
- Display: LCD
- Eng. Units (mass): kg, lb., and ton
- Eng. Units (Temp): °C, °F
- Eng. Units: (Vol.) m³, Liter, US Gallon, Imperial Gallon, Million Gallon,
- Zero Stability: 0.1% full-scale
- Zero Drift (%FS / °C): 0.005

- Process Temperature: -58~392 °F (-50~200 °C) -std
- Ambient Temperature: -5~312 °F (-20~55 °C)
- Max Working Pressure: 360 psig (2.5MPa) std,
930 psig optional
- Measuring Tube Mat'l: SS per DIN1.4571 (AISI 316Ti)
standard
- Housing Material: SS #304
- Power Supply: 24 VDC, $\pm 20\%$; 86~260V_{AC}
- Power Consumption: Less than 6W
- Outputs: 4-20 mA, 0-10 kHz pulse, RS485
- Density Meas. Range: 12.5-125lb/ft³ (0.2~2.0 g/cc)
- Density Accuracy: ± 0.06 b/ft³ (0.001 g/cc)
- Temperature Accuracy: up to $\pm 1^\circ$ F (°C)

METER SIZE (MM)	FLOW RANGE LB/HR. (KG./HR.) (0.2% & 0.5% ACCURACY)	FLOW RANGE LB/HR. (KG./HR.) ACCURACY 0.1%	STABILITY OF ZERO POINT LB/HR. (KG./HR.)
03 ALCM-DT	11~220 (5~100)	22~220 (10~100)	0.004 (0.002)
08 ALCM-DT	388~1764 (70~800)	220~1764 (100~800)	0.015 (0.007)
10 ALCM-DT	220~2204 (100~1,000)	330~2204 (150~1000)	0.044 (0.02)
15 ALCM-DT	440~6614 (200~3,000)	551~6614 (250~3000)	0.154 (0.07)
25 ALCM-DT	661~17367 (300~8,000)	1213~17367 (550~8000)	0.771 (0.35)
50 ALCM-ST	5512~110231 (2500~50,000)	11023~110231 (5000~50000)	3.30 (1.5)
80 ALCM-ST	11023~220462 (5,000~100,000)	17637~ 264555 (8000~120000)	7.75 (3.5)

Accuracy



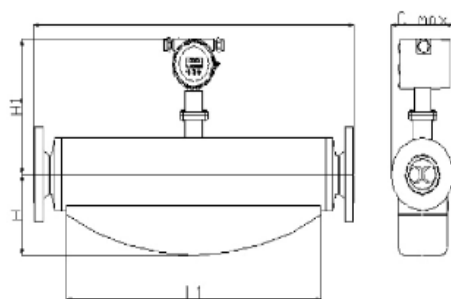
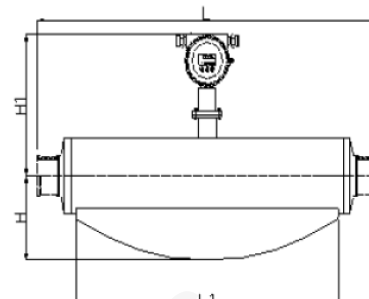
This diagram shows typical values. Individual values may be taken from the calibration records supplied with each meter.

Repeatability

ACCURACY	0.1%	0.20%	0.50%
REPEATABILITY	±0.05%	±0.1%	±0.25%

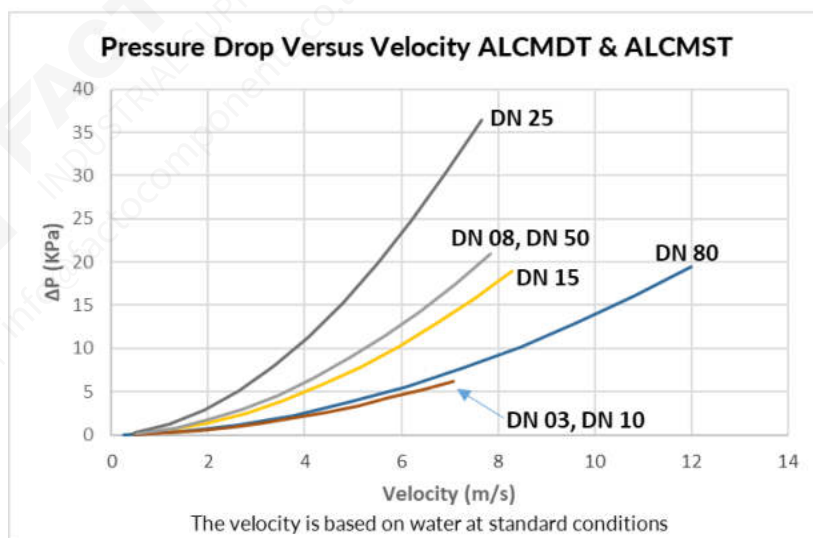
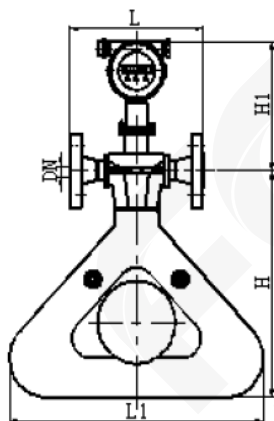
Density Measuring

DENSITY RANGE	12.5-125 Lb./ft ³ (0.2~2.0 g/cc)
BASIC ERROR	±0.06 b/ft ³ (0.001 g/cc) Affected by the transducer
REPEATABILITY	±0.06 b/ft ³ (0.001g/cm ³)

TRANSDUCER**Flange Connection****Tri-Clamp Connection****Outline dimensions ALCM-ST***-All dimensions in units of inches (mm)-*

NOMINAL LINE SIZE	L 1.6-40 BAR	L 64 BAR	L1	H	H1	C-MAX	SHIPPING WEIGHTS LB (KG)
2" (50)	31.5 (800)	32.8 (834)	24.9 (620)	7.9 (200)	12.6 (320)	8.1 (205)	67 (30)
3" (80)	36.8 (935)	38.3 (973)	28.7 (730)	7.9 (200)	12.6 (320)	16.4 (416)	132 (60)

NOMINAL LINE SIZE	L 1.6-40 BAR	L 64 BAR	L1	H	H1	C-MAX	SHIPPING WEIGHTS LB (KG)
2" (50)	31.5 (800)	32.8 (834)	17.7 (450)	7.9 (200)	12.4 (315)	8.1 (205)	67 (30)
3" (80)	36.8 (935)	38.3 (973)	25.4 (645)	7.9 (200)	13.2 (335)	16.4 (416)	132 (60)

**Outline dimensions ALCM-DT***-All dimensions in units of inches (mm)-*

NOMINAL LINE SIZE	L 1.6-40 BAR	L 64 BAR	L1	H	H1	C-MAX	SHIPPING WEIGHTS LB (KG)
1/16" (3)	5.9 (150)	6.7 (170)	13.4 (350)	11.4 (290)	10.2 (260)	3.7 (95)	24 (11)
1/8" (8)	5.9 (150)	6.7 (170)	13.4 (350)	11.4 (290)	10.2 (260)	3.7 (95)	24 (11)
3/16" (10)	5.9 (150)	6.7 (170)	13.4 (350)	11.4 (290)	10.2 (260)	3.7 (95)	24 (11)
1/2" (15)	7.1 (180)	7.6 (194)	13.4 (350)	11.8 (300)	10.2 (260)	3.7 (95)	24 (11)
1" (25)	7.9 (200)	9.8 (248)	17.7 (450)	16.5 (420)	11.0 (280)	4.5 (115)	33 (15)

Please provide the name of your fluid, including operating density and viscosity

Please provide the max and min flow rate, normal flow rate also

Please provide the line size and connection

We will calibrate your flow meter as close to your operating conditions as possible

Please indicate the maximum allowable pressure drop

Please specify output and installation type (wall mount, panel mount, etc.)

Please specify AC or DC power supply

ALCM-DT OR ALCM-ST SERIES

EXAMPLE 1: ALCM-DT-025-F-5-1-N-CBS-NX-DC-NN

ALCM-DT OR ALCM-ST	**	**	**	**	**	**	**	**	**	**	
DN3 (5-100 kg/hr) DT ONLY	003	Nominal Line Size									
DN8 (70-800 kg/hr) DT ONLY	008										
DN10 (100-1,000 kg/hr) DT ONLY	010										
DN15 (200-3,000 kg/hr) DT ONLY	015										
DN25 (300-8,000 kg/hr) DT ONLY	025										
DN50 (2,500-50,000 kg/hr) ST ONLY	050										
DN80 (15,000-150,000 kg/hr) ST ONLY	080										
ANSI 150 #	F	Process Connections									
ANSI 300# flange	F3										
Other connection	O										
0.1% -	1	Accuracy									
0.2% -	2										
0.5% - standard	5										
232 psi (1.6 MPa) - standard	1	Working Pressure									
362 psi (2.5 MPa)	2										
580 psi (4.0 MPa)	3										
Up to 176°F (80°C) - standard	N	Working Temperature									
Up to 302°F (150°C)	M										
Up to 482°F (250°C)	H										
CB03 Compact Version -local display, 4-20mA, RS485	CBS	Transmitter									
CB03 Compact Version -local display, 4-20mA, RS485 and HART	CBH										
CB03 Remote Version - display, 4-20mA, RS485	RBS										
CB03 Remote Version - display, 4-20mA, RS485 and HART	RBH										
TRO Remote Version - surface touch control, display, 4-20mA, RS485	TRO										
Other transmitter	RE										
Non-Explosion	NX	Approval									
Ex protection EEx d Explosion proof UL/CUL/CSA	XD										
24 V _{DC}	DC	Power Supply									
85-260 V _{AC} , 50/60 Hz	AC										
Standard - with 316L measuring tube	NN	Options									
Signal cable for remote type - extra length	CABL										
Heat jacket	HJ										



FACTO COMPONENTS CO., LTD. | บริษัท แฟคโต คอมโพเนนส์ จำกัด

845/3-4 ชั้น 3 ถ.เทพารักษ์ ต.เทพารักษ์ อ.เมือง จ.สมุทรปราการ 10270

TEL: 02-384-6060, 086-369-5872 LINE OA : @factocomps Website : www.factocomponents.co.th Email : info@factocomponents.co.th