A1 SERIES FLOWMETERS, ALUMINUM OPTION

FLOMEC® A1 Series Meters are designed as self-contained, battery-powered units. Select the A1 Series when you need an accurate meter for thin petroleum-based fluid applications.

- Available in Aluminum
- Available in three sizes
- Designed for thin petroleum based fluids

FEATURES / BENEFITS

- Unique package combines Turbine and LCD into a self-contained, compact, economical meter
- Local Display Computer features: 2 Non-Volatile Totals (Batch Total = Resettable, Total = Non-resettable) and Rate of Flow
- Output capabilities available to communicate with process control equipment
- Lightweight, compact design allows for easy installation
- AAA Alkaline battery life: 2 years
- 12 selectable engineering units (gallons or liters are standard defaults)
- Factory calibration

APPLICATIONS

- Fuel Transfer
- Batching / Blending
- Fuel Products

PRODUCT CONFIGURATION

1 PRODUCT IDENTIFIER:
A1 = Electronic Digital Meter

2 ELECTRONIC CHOICE:

Computer Display, Meter Mounted
Q9 = Q9 2-Button Computer

Computer Display & Module, Meter Mounted*
P9 = Q9 2-Button Computer w/Pulse Out Module, includes External Power and 10 ft. of Cable
42 = Q9 2-Button Computer w/4-20mA Module and 10 ft. of Cable

Module, Meter Mounted (No Display)*
PO = Pulse Out (Unscaled) Conditioned Signal Module w/Cable

Retrofit Computer Kit (Display Only)
R9 = Q9 2-Button Computer Retrofit Kit (Replaces 09 Display)

No Electronics - Turbine Only
XX = No Electronics - Turbine Only

*All Electronics Approvals Void

3 CALIBRATION:
GM = Factory Default Calibration in Gallons
LM = Factory Default Calibration in Liters
XX = No Computer

4 TURBINE SIZE:
A025 = Aluminum - Low Flow
A100 = Aluminum - 1 inch
A200 = Aluminum - 2 inch
X### = No Turbine**

**When ordering Display Only, the ### should be the turbine size.

5 FITTING TYPE:
N = NPT (Female)
I = ISO (Female) BSPT
B = BSPP Female
X = No Turbine

6 PACKAGING:

With FM, ATEX & IEC Approval for HAZARDOUS AREA
A1 = Standard or Low Flow, 1 inch (w/Q9 & R9 Electronics Choice)
A2 = Standard, 2 inch (w/Q9 & R9 Electronics Choice)
B1 = Standard or Low Flow, 1 inch Turbine Only
B2 = Standard, 2 inch Turbine Only
B3 = Display Only

Non-Approved Version - SAFE AREA ONLY
C2 = Low Flow through 2 inch Turbines (w/P9, 42, & PO Electronics Choice)

1	2	3	4	5	6
--->>>> A1	Q9	GM	A100	N	A1

APPROVALS†

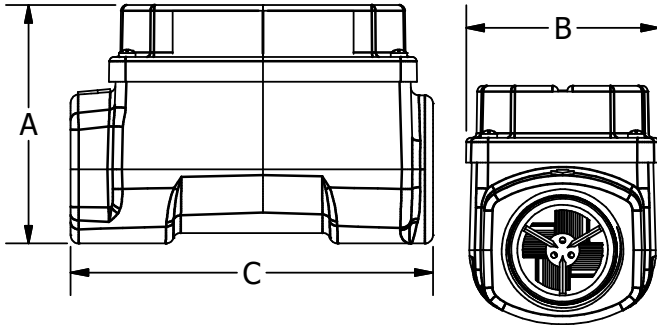CE ATEX ⟨Ex⟩ NEMA 4 FM APPROVED c FM us APPROVED IP65 IEC IECEx

†All A1 Series Q9 Displays have the CE, NEMA 4, and IP65 approval.

SPECIFICATIONS

Meter Sizes Available:		A025 (Low Flow), A100 (1 inch), A200 (2 inch)
Design Type:	A025	Paddlewheel
	A100	Turbine
	A200	Turbine
Fitting Size / Fitting Type:	A025	1 inch / NPT, ISO+ or BSPP (Female)
	A100	1 inch / NPT, ISO+ or BSPP (Female)
	A200	2 inch / NPT, ISO+
Flow Range:	A025	0.3 - 3 GPM	1 - 11 L/min
	A100	3 - 50 GPM	11 - 190 L/min
	A200	30 - 300 GPM	114 - 1,135 L/min
Accuracy (% of Reading):		A025: Application Dependent[1]
		A100, A200: ± 1.5%
Repeatability:	A025	± 1.0%
	A100	± 0.2%
	A200	± 0.2%

+ISO 7 Designation is RC.
[1]Accuracy can vary up to ± 5% depending on installation and fluid type.
Field calibration is recommended for best accuracy.

Pressure Rating (Aluminum):		300 psi (21 bar)
Operating Temperature Range:		-40° F to 250° F (-40° C to 121° C)
with Safe Area Only Display:		0° F to 140° F (-18° C to 60° C)
with Intrinsically Safe Display:		0° F to 129° F (-18° C to 54° C)
Typical K-Factor:	A025	2,200 PPG (581 Pulses/L)
	A100	730 PPG (193 Pulses/L)
	A200	72 PPG (19 Pulses/L)
Frequency Range:	A025	11-110 Hz @ 0.3-3 GPM (1-11 L/min)
	A100	36.5-608.3 Hz @ 3-50 GPM (11-190 L/min)
	A200	36-360 Hz @ 30-300 GPM (114-1135 L/min)
Recommended Strainer Size:	A025	55 mesh (275 µm)
	A100	28 mesh (700 µm)
	A200	28 mesh (700 µm)
Wetted Materials (Aluminum):	Housing:	Aluminum
	Bearings:	Ceramic (96% Alumina)
	Shaft:	Tungsten Carbide
	Rotor:	Nylon
	Rings:	316 Stainless Steel
Calibration Report:		Comes standard with A1 Series meters.
		N.I.S.T. – Certification available.

DIMENSIONS

	A025, 1 in. Low Flow	A100, 1 in.	A200, 2 in.
A = Height*	2.5 in. (6.3 cm)	2.5 in. (6.3 cm)	4.25 in. (11.4 cm)
B = Width	2.0 in. (5.1 cm)	2.0 in. (5.1 cm)	3.0 in. (7.6 cm)
C = Length	4.0 in. (10.1 cm)	4.0 in. (10.1 cm)	6.0 in. (15.2 cm)

*Height includes 0.7 in. (1.8 cm) for the computer electronics.

ACCESSORIES

Part No.	Description
113275-10	FM Approved Remote Kit Assembly‡
113435-10	Conditioned Signal Output Module
125260-02	90º Display Adapter Kit
120077-01	FM Approved Sensor Kit‡
120077-02	ATEX Approved Sensor Kit‡
113524-01	Connector Kit for FM or ATEX Approved Sensor‡
125060-10	Pulse Out, External Power, Scaled Pulse Module
125100-10	4-20 mA Module

‡Does not make Non-FM or Non-ATEX Approved meters FM or ATEX Approved.

Wichita · Sydney **GREAT PLAINS INDUSTRIES** *GPI*®

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Service & Warranty: For technical assistance, warranty replacement or repair contact your FLOMEC® or GPI® distributor: In North or South America: **888-996-3837 / FLOMECmeters.com**
Outside North or South America: **+61 2 9540 4433 / FLOMECmeters.com**
IND-1043-A1 Aluminum Rev A 02/2022

A1 SERIES FLOWMETERS, NYLON OPTION

FLOMEC® A1 Series Meters are designed as self-contained, battery powered units. Select the A1 Series when you need an accurate meter for water or non-aggressive chemical applications.

- Available in Nylon
- Nylon meter for use in water or non-aggressive chemical applications

FEATURES / BENEFITS

- Unique package combines Turbine and LCD into a self-contained, compact, economical meter
- Local Display Computer features: 2 Non-Volatile Totals (Batch Total = Resettable, Total = Non-resettable) and Rate of Flow
- Output capabilities available to communicate with process control equipment
- Lightweight, compact design allows for easy installation
- AAA Alkaline battery life: 2 years
- 12 selectable engineering units (gallons or liters are standard defaults)
- Factory calibration

APPLICATIONS

- Plant Process Water
- Batching / Blending
- Water / Non-Aggressive Chemicals
- Ag Chemicals
- Solvents / Glycol
- Chemical Feed Lines

PRODUCT CONFIGURATION

1 PRODUCT IDENTIFIER:
A1 = Electronic Digital Meter

2 ELECTRONIC CHOICE:
Computer Display, Meter Mounted
Q9 = Q9 2-Button Computer

Computer Display & Module, Meter Mounted*
P9 = Q9 2-Button Computer w/Pulse Out Module, includes External Power and 10 ft. of Cable
42 = Q9 2-Button Computer w/4-20mA Module and 10 ft. of Cable

Module, Meter Mounted (No Display)*
PO = Pulse Out (Unscaled) Conditioned Signal Module w/Cable

Retrofit Computer Kit (Display Only)
R9 = Q9 2-Button Computer Retrofit Kit (Replaces 09 Display)

No Electronics - Turbine Only
XX = No Electronics - Turbine Only

*All Electronics Approvals Void

3 CALIBRATION:
GM = Factory Default Calibration in Gallons
LM = Factory Default Calibration in Liters
XX = No Computer

4 TURBINE SIZE:
N025 = Nylon - Low Flow
N100 = Nylon - 1 inch
X### = No Turbine**

**When ordering Display Only, the ### should be the turbine size.

5 FITTING TYPE:
N = NPT (Female)
I = ISO (Female) BSPT
X = No Turbine

6 PACKAGING:
With FM, ATEX & IEC Approval for HAZARDOUS AREA
A1 = Standard or Low Flow, 1 inch (w/Q9 & R9 Electronics Choice)
A2 = Standard, 2 inch (w/Q9 & R9 Electronics Choice)
B1 = Standard or Low Flow, 1 inch Turbine Only
B3 = Display Only

Non-Approved Version - SAFE AREA ONLY
C2 = Low Flow and 1 inch Turbines (w/P9, 42, & PO Electronics Choice)

1	2	3	4	5	6
--->>>> A1	Q9	GM	N100	N	A1

APPROVALS†

CE ATEX Ⓔx NEMA 4
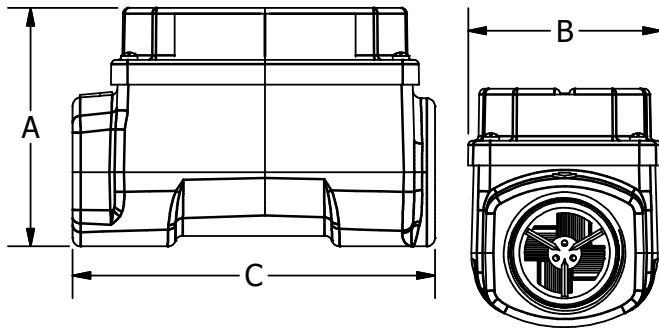
FM APPROVED   c FM us APPROVED   IP65   IEC   IECEx

†All A1 Series Q9 Displays have the CE, NEMA 4, and IP65 approval.

SPECIFICATIONS

Meter Sizes Available:		N025 (Low Flow), N100 (1 inch)
Design Type:	N025	Paddlewheel
	N100	Turbine
Fitting Size / Fitting Type:	N025	1 inch / NPT, ISO+ (Female)
	N100	1 inch / NPT, ISO+ (Female)
Flow Range:	N025	0.3 - 3 GPM	1 - 11 L/min
	N100	3 - 50 GPM	11 - 190 L/min
Accuracy (% of Reading):		N025: Application Dependent[1]
		N100: ± 1.5%
Repeatability:	N025	± 1.0%
	N100	± 0.2%

+ISO 7 Designation is RC.
[1]Accuracy can vary up to ± 5% depending on installation and fluid type. Field calibration is recommended for best accuracy.

Pressure Rating (Nylon):		150 psi (10.3 bar)
Operating Temperature Range:		-40° F to 250° F (-40° C to 121° C)
with Safe Area Only Display:		0° F to 140° F (-18° C to 60° C)
with Intrinsically Safe Display:		0° F to 129° F (-18° C to 54° C)
Typical K-Factor:	N025	2200 PPG (581 Pulses/L)
	N100	730 PPG (193 Pulses/L)
Frequency Range:	N025	11-110 Hz @ 0.3-3 GPM (1-11 L/min)
	N100	36.5-608.3 Hz @ 3-50 GPM (11-190 L/min)
Recommended Strainer Size:	N025	55 mesh (275 µm)
	N100	28 mesh (700 µm)
Wetted Materials (Nylon:	Housing:	Nylon
	Bearings:	Ceramic (96% Alumina)
	Shaft:	Tungsten Carbide
	Rotor:	Nylon
	Rings:	316 Stainless Steel
Calibration Report:		Comes standard with A1 Series meters.
		N.I.S.T. – Certification available.

DIMENSIONS

	N025, 1 in. Low Flow	N100, 1 in.
A = Height*	2.5 in. (6.3 cm)	2.5 in. (6.3 cm)
B = Width	2.0 in. (5.1 cm)	2.0 in. (5.1 cm)
C = Length	4.0 in. (10.1 cm)	4.0 in. (10.1 cm)

*Height includes 0.7 in. (1.8 cm) for the computer electronics.

ACCESSORIES

Part No.	Description
113275-10	FM Approved Remote Kit Assembly‡
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125260-02	90° Display Adapter Kit
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120077-02	ATEX Approved Sensor Kit‡
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125100-10	4-20 mA Module

‡Does not make Non-FM or Non-ATEX Approved meters FM or ATEX Approved.

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