

EDM BATTERY POWERED RATE METER & TOTALIZER



Flow
Pressure
Level
Temperature
Measurement
Monitoring
Control



- Brass, SS, Aluminum, PVDF, or Nylon Bodies
- Battery Powered
- Compact and Portable
- Ranges: 0.3-3 GPM to 30-300 GPM
- Rate and Totaling Displays
- Analog or Frequency Outputs
- New and Improved Computer Electronics



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Model:
EDM

Description

The EDM turbine flowmeter measures the flow of water and low viscosity liquids ranging from 0.3 GPM to 300 GPM. Its replaceable lithium batteries power an onboard rate meter/totalizer allowing installation in virtually any location, regardless of power availability. Results are displayed on a highly visible LCD readout.

Versatile and easy to use, the EDM's modular design allows KOBOLD to offer a variety of electronic modules which further enhance its versatility. Available are options for a remote display, a frequency output, and a 4-20 mA analog transmitting output. Nylon, aluminum, PVDF or stainless steel body construction make the EDM compatible with a wide variety of process media.

Improved Computer Electronics

The upgraded computer electronics features 1 rate and 2 totalizing displays. Standard measuring units are field switchable GPM or LPM. The ability to store two field calibrations allows the user to freely switch 3 different liquid viscosities with the same flowmeter.



KOBOLD EDM Flow Sensors

Specifications

Accuracy (% of Reading)
See ordering information

Fittings
Standard: NPT
Optional: ISO, flanges, Tri-clamp®

Maximum Pressure
Stainless Steel
Threaded: 1500 PSIG
Flanged: 285 PSIG
Tri-clamp: 450 PSIG
Nylon: 150 PSIG
Aluminum: 300 PSIG
PVDF: 150 PSIG

Temperature Range (Operating)
Onboard Display: +14 to +140°F
Remote Display
SS/Aluminum: -40 to +250°F
Nylon/PVDF: -20 to 180°F
Display + Output: +14 to +140°F

Wetted Materials
SS Body: 316 SS, Ceramic, PVDF, Tungsten Carbide
Nylon Body: Nylon, Ceramic, Tungsten Carbide, Manganese/zinc, 316 SS
Aluminum Body: Aluminum, 316 SS, Tungsten Carbide, Ceramic, Manganese/zinc
PVDF Body: PVDF, Ceramic, Viton

Electrical Ratings
Onboard Display/Computers
Input Power: Two 3 VDC lithium batteries
Battery Life: 9000 hours
Protection: NEMA 4
Option -RD: Remote Display Kit
Input Power: Self-powered magnetic pickup
Cable Length: 10 ft supplied, 100 ft maximum



Ordering Details (Example: EDM-4202B)

Water Flow Range		Accuracy % of Reading	Fitting Size [NPT]	Max dP [PSI]	Model Number	
GPM	LPM					
Flowmeter with Stainless Steel or Aluminum Body						
					Stainless Steel	Aluminum
1 - 10	3.8 - 38	2.0	1/2"	8	EDM-4201	EDM-4301
2 - 20	7.6 - 76	1.5	3/4"	7.5	EDM-4202	EDM-4302
5 - 50	19 - 190	1.5	1"	5	EDM-4203	EDM-4303
10 - 100	38 - 380	1.0	1 1/2"	4	EDM-4204	EDM-4304
20 - 200	76 - 760	1.0	2"	4	EDM-4205	EDM-4305
Flowmeter with PVDF Body						
1.2 - 12	4.5 - 45	2.0	1/2"	10	-	EDM-4401
5 - 50	19 - 190	1.5	1"	6	-	EDM-4403
Flowmeter with Nylon Body						
0.3 - 3	1 - 10	1.5	1"	2	-	EDM-4101
3 - 50	10 - 190	1.5	1"	5	-	EDM-4102
High Flow Flowmeter with Aluminum Body						
3 - 50	10 - 190	1.5	1"	5	-	EDM-4307
30 - 300	100 - 1000	1.5	2"	7	-	EDM-4309
Options						
Description						Suffix
Add-on remote mounting kit for displays						RD
Add-on pulse frequency transmitter kit (Not for high flow aluminum and nylon meters)						PM
Add-on pulse frequency transmitter kit in place of display						SC
Add-on 4-20 mA analog transmitter kit (Not for high flow aluminum and nylon meters)						WM
150 LB ANSI flange connection for stainless steel flowmeters only						F
Tri-clamp® connection for stainless steel flowmeters only						T
ISO Threads						B

Electrical Characteristics of Standard Pulse and Analog Outputs

Option "WM": 4-20 mA Transmitter

Input Power: 7-30 V_{DC} loop powered
Output: 2-wire, 4-20 mA DC
Cable Length: 10 feet provided
Protection: NEMA 4
Intrinsic Safety: None

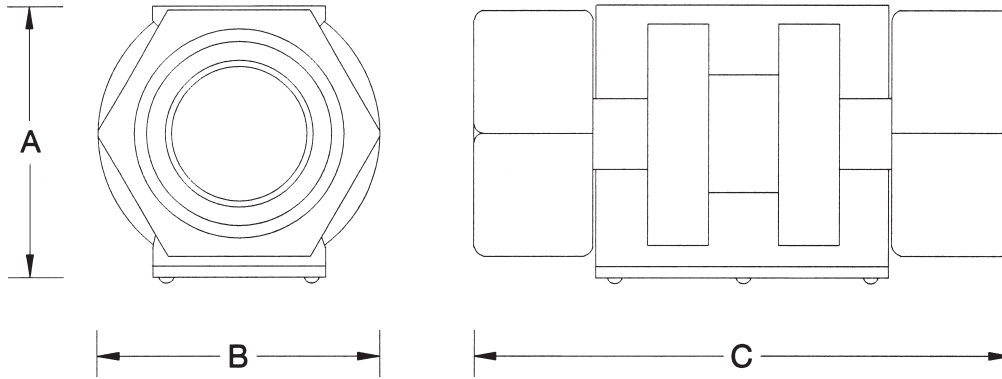
Option "PM": Pulse Transmitter with Display

Input Power: 0-60 V_{DC}
Output: NPN open collector transistor
Sink Current: 100 mA maximum
Cable Length: 10 feet provided
Protection: NEMA 4
Intrinsic Safety: None

Option "SC": Pulse Transmitter, no Display

Input Power: 9-35 V_{DC}
Output: NPN open collector transistor
Sink Current: 4 mA maximum
Cable Length: 10 feet provided
Protection: NEMA 4
Intrinsic Safety: None

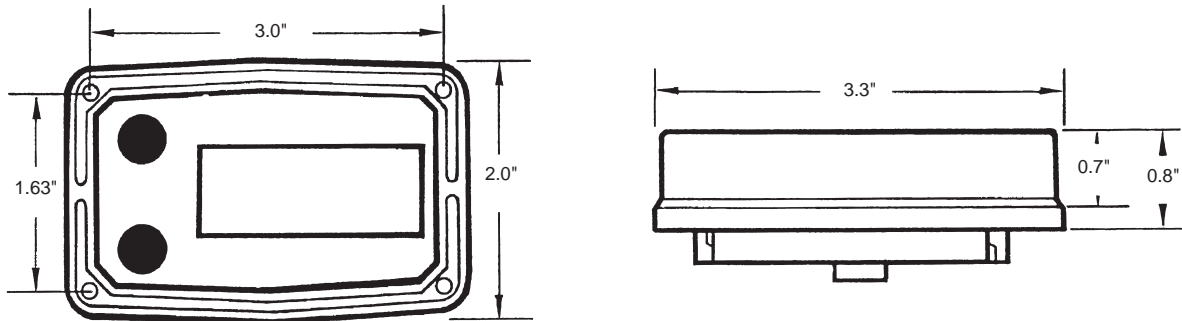
EDM Sensor Dimensions



Fitting Size	SS/Aluminum			Nylon			Aluminum High Flow			PVDF		
	A	B	C	A	B	C	A	B	C	A	B	C
1/2"	1.8"	2.0"	4.2"	-	-	-	-	-	-	3.2"	2.1"	7.3"
3/4"	2.0"	2.0"	4.3"	-	-	-	-	-	-	-	-	-
1"	2.2"	2.0"	4.5"	2.53"	2.13"	4.06"	2.53"	2.13"	4.06"	3.3"	2.8"	8.1"
1 1/2"	2.8"	2.7"	5.3"	-	-	-	-	-	-	-	-	-
2"	3.2"	3.3"	6.3"	-	-	-	4.06"	3.00"	6.12"	-	-	-

* Sensor portion only. For meters with display, add 0.70" to dimension A.

EDM Display Dimensions



EDM ELECTRONIC WATER METER



Flow
Pressure
Level
Temperature
Measurement
Monitoring
Control



- Economical PVC Construction
- Flowrate Indication with Resettable and Non-Resettable Totalizers
- Flow Ranges 1-10 GPM through 60-600 GPM/ 3.8-38 LPM through 227-2271 LPM Water
- Lithium Battery Powered Indicator Requires no Local Supply Power
- Excellent Replacement for Mechanical Totalizers

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Model:
EDM



Description

The EDM series water flowmeter is excellent for accurately totalizing water and other low viscosity liquids. It features an economical PVC body and lithium battery powered LCD display. The display has a resettable batch totalizer and a nonresettable grand totalizer, as well as rate indication. These displays are accessed by a toggle pushbutton on the face. The EDM is factory calibrated for water flow. This calibration is valid for low viscosity liquids up to 10 centistokes viscosity. For higher viscosity liquids, a field calibration mode exists allowing the user to dispense a known volume of liquid in order to calibrate the EDM's computer for the higher viscosity liquid.

The EDM electronic water meter is available in line sizes from 1/2 to 4 inches. Fittings available are PVC socket or NPT threads (150 LB ANSI Flanged connections also available for 3" and 4" units). The EDM series combines economy with a full featured electronics making it an excellent and economical replacement for metal body mechanical water totalizers.

Specifications

- Available Flow Ranges:** 1-10 GPM to 60-600 GPM/ 3.8-38 LPM to 227-2271 LPM water
- Allowable Liquids:** Clean non-coating liquids compatible the with wetted parts
- Accuracy:** ±3% of reading
- Repeatability:** ±0.1% of reading
- Max. Pressure:** 225 PSIG at 70°F
- Oper. Temp. Range:** 32 to 140°F
- Straight Piping Rqmt:** 10 x D upstream, 5 x D downstream



KOBOLD EDM Electronic Water Meter

Onboard Display Features

Flowrate indication, one user resettable batch totalizer, one non-resettable grand totalizer, field calibration routine for higher viscosity liquids (100 cPs Max.).

Wetted Parts

- Body:** PVC
- Rotor:** PVDF (Kynar®), Acetal (for 3" & 4" units)
- Bearings:** Ceramic, PEEK (for 3" & 4" units)
- Axle:** Tungsten carbide SS (for 3" & 4" units)
- Retaining Ring:** 316 SS
- Display Power Source:** 2 x 1.5V lithium batteries
- Battery Life:** 5 years
- Power Saver Feature:** Display blanks when flow ceases for longer than one minute.
- Filtration Required:** 60 mesh
- Pulse Output Option:** Open Collector (NPN)

Ordering Details (Example: EDM-8506F)

Fitting Size	Flow Range water		dP at Max. Flow [PSI]	Shipping Weight [lbs]			Base Model	Fitting Style	Option
	GPM	LPM		[N]	[S]	[F]			
1/2"	1 - 10	3.8 - 38	7.9	0.55	0.38	-	EDM-8501	N = NPT S = Socket F = Flange*	SC = Add-on pulse frequency transmitter kit in place of display
3/4"	2 - 20	7.6 - 76	7.5	0.67	0.43	-	EDM-8502		
1"	5 - 50	18.9 - 189	5.0	0.88	0.49	-	EDM-8503		
1 1/2"	10 - 100	38 - 380	4.0	1.38	0.66	-	EDM-8504		
2"	20 - 200	76 - 760	4.0	1.78	0.78	-	EDM-8505		
3"	40 - 400	151 - 1510	TBD	3.9	2.4	5.8	EDM-8506		
4"	60 - 600	227 - 2271	TBD	6.1	3.7	9.2	EDM-8507		

*Option F only available for 3" and 4" meters