

Technical Specifications and Ordering Information

Matrix Meter

Ordering Information

246008	Matrix Meter
	One battery included. Extension kit is sold separately.
246005	Rigid Extension
246007	Flexible Extension
246006	Gear Lube Extension
248319	Rigid anti-freeze extension
248320	Flexible anti-freeze extension
117310	Meter battery

Technical Specifications

Maximum Fluid Working Pressure	1500 psi (103 bar, 10.3 MPa)
Operating Fluid Pressure Range*	100 – 1500 psi (7 – 103 bar, 0.7 – 10.3 MPa)
Flow Range	0.26 – 5.0 gpm (1.0 – 18.9 lpm)
Weight (with battery and rigid nozzle extension)	6.07 lbs (2.75 kg)
Units of Measurement	Programmable in pints, quarts, gallons, or liters
Maximum Recorded Dispense Volume	999.99 units
Maximum Preset Volume	99.9 units
Inlet Size	1/2 npt(f)
Outlet Size	3/8 npt(f)
Operating Temperature Range	32°F – 120°F (0°C – 49°C)
Storage Temperature Range	-30°F – 120°F (-34°C – 49°C)
Battery (six month warranty)	9.6 VDC rechargeable NiMH
Battery Storage Temperature	50°F – 86°F (10°C – 30°C)
Wetted Parts	Zinc, stainless steel, carbon steel, polyurethane, nitrile rubber
Fluid Compatibility	Petroleum and synthetic based oils and anti-freeze mixtures (not compatible with fuel and windshield washer fluid)
Accuracy**	±0.5 % (may require calibration, out-of-box accuracy ±1.25 %)
Repeatability**	±0.15 %
RF Communication	902 – 928 MHz frequency hopping, spread-spectrum
Unobstructed RF Communication Range	300–500 ft (91.0 – 152.0 m) (based on typical automotive dealership application)
Obstructed RF Communication Range	250–300 ft (76.2 – 91.0 m) (based on typical automotive dealership application)
Approvals	FCC, Industry Canada (IC)
Warranty	Two years
Instruction Manual	309497

* Minimum pressure loss at 1.5 gpm (5.7 lpm) with 30W oil @ 70°F (21°C)

** At 2.5 gpm (9.5 lpm), @ 70°F (21°C) with 10W oil, and 1 gallon (3.76 liters) dispensed.

Software System

Ordering Information

Packaged with the Matrix Transceiver. May not be ordered separately.

Operating Requirements

During set up, the Matrix Software program and other files are decompressed and copied to the hard disk. Note: The system administrator function of the program must be set up before using the software or other system components.

This software is not compatible with Apple® Computers, and is not available for the Apple® Operating system.

Minimum computer requirements to run the Matrix software:

- Graco recommends using a dedicated PC with a Pentium III, 500 MHz processor or better. If the system needs to run in a networked configuration, contact your Information Systems (IS) professional before loading the software.
- Microsoft Internet Explorer 5.5 or better
- Microsoft Windows XP – Professional or Home Edition
- At least 128 megabytes (MB) of random-access memory (RAM)
- At least 500 megabytes (MB) to 1 gigabyte (GB) of hard disk space
- One serial port available
- CD-RW or DVD/RW Drive

Technical Specifications and Ordering Information

Transceiver

Ordering Information

249020 Transceiver and Matrix Full Line Software
117256 Transceiver only

Note: The Matrix Tank Level Monitor Software and Transceiver can be ordered separately using P.N. 249021. For more information about the Tank Level Monitoring part of the Matrix system, see the Tank Level Monitor brochure (Form No. 300619).

Technical Specifications

Weight 1.0 lbs. (454 grams)
RF Communication 902-928 MHz frequency hopping, spread-spectrum
Unobstructed RF Communication Range 300 – 500ft (91.0 – 152.0 m)
Obstructed RF Communication Range 250 – 300ft (76.2 – 91.0 m)
RF Operating Temperature Range -40°F – 185°F (-40°C – 85°C)
Power Supply 120 VAC to 12VDC plug in transformer
Approvals FCC, Industry Canada (IC)
Warranty Two years
Instruction Manual 309498

Tank Level Monitor

Ordering Information

119274 Tank Level Monitor

Technical Specifications

Ultrasonic Tank Depth Measurement Range 0 – 30ft. (0-9 m)
Not recommended for use with pressurized tanks.
Fluid Level Measurement Accuracy* ± 0.5%
Weight 2.34lb (1.06 kg)
Operating Temperature Range -22°F - 122°F (-30°C - 50°F)
RF Operating Temperature Range -40°F - 185°F (-40°C - 85°F)
Storage Temperature Range -40°F - 185°F (-40°C - 85°F)
Batteries (2) 9 VDC Alkaline only
Battery Life (based on 1 report/day) 2 years
RF Communication 902-928 MHz frequency hopping, spread-spectrum
Unobstructed RF Communication Range 300-500 ft (91.0 – 152.0 m)
Obstructed RF Communication Range 250-300 ft (76.2 – 91.0 m)
Totally Unobstructed RF Communication Range 0.25 mile/1,320 ft (4 km/402.3 m)
Intrinsic Safety Exia for use in Class I, Division 1, Group D, Hazardous Locations when used with (2) 9-volt alkaline batteries. Ambient temperature range -22°F - 122°F (-30°C - 50°C). Temperature Code T3.

Note: Do NOT use the Matrix Tank Level Monitor with gasoline, diesel fuel, or other flammable liquids, and materials with an auto ignition flash point below 419°F (215°C).

Vertical Wall Tanks

Maximum volume 999,999 gallons or liters
Maximum height 30 ft (360 in.)

Cylindrical and Obround Tanks

Maximum volume 999,999 gallons or liters
Maximum diameter 30 ft (360 in.)
Maximum length Unlimited

Approvals FCC, Industry Canada (IC), UL, cUL
Warranty Two years
Instruction Manual 309500

* The difference in air temperature between the inside and outside of the tank may affect the accuracy of fluid levels.

Meter Battery Charger and Batteries

Ordering Information

117427 Single-Bay Charger
117429 4-Bay Charger
117435 Extension Unit
Used to convert a 4-bay charger to either a 5-bay or 6-bay charger. One extension unit is required for a 5-bay conversion and two extension units are used for a 6-bay conversion.
117310 Extra Battery Pack

Technical Specifications

Charging Time 1-2 hours
Power Source
Four-bay charger 120 VAC
Single-bay charger 120 VAC to 24 VDC plug in transformer
Operating Temperature Range 32°F - 122°F (0°C - 50°C)
Storage Temperature Range -40°F - 185°F (-40°C - 85°C)
Humidity Range 0 – 95% rH non-condensing
Weight
Four-bay charger 6.63 lbs (4.38 kg)
Single-bay charger 2.12 lbs. (0.96 kg)
Warranty Two years
Battery Charger Instruction Manual 309502
Battery Charger Extension Manual 309499
(single bay extension for Four-Bay charger)

Transceiver to PC Connection Hardware

119435 RS232/RS422 converter
249019 RS422 Connector kit (includes 25 RS422 connectors and 100 ferrules)
119645 RS422 Connector crimping tool
119572 1000 ft (305 m) roll of RS422 cable
118346 100 ft (30.5 m) RS232 pre-connected cable

CleanLine Filter Equipment

248421 900 psi (62 bar, 0.62 Mpa) Tank Mount Clean Line Filter
248418 900 psi (62 bar, 0.62 Mpa) Wall Mount Clean Line Filter
248653 900 psi (62 bar, 0.62 Mpa) Replacement Filter
248419 1800 psi (124 bar, 12.4 Mpa) Tank Mount Clean Line Filter
248417 1800 psi (124 bar, 12.4 Mpa) Wall Mount Clean Line Filter
248300 1800 psi (124 bar, 12.4 Mpa) Replacement Filter

Anti-Freeze Pump Packages

248321 Monark 5:1 Stainless Steel Wall Mount Anti-freeze Pump Package
248322 Monark 5:1 Stainless Steel Tank Mount Anti-freeze Pump Package
248323 President 3:1 Stainless Steel Wall Mount Anti-freeze Pump Package

Impact Guard Covers

15D618 Black (standard color)
15F001 Red
15F002 Blue
15F003 Green
15F004 Yellow

Other Matrix Accessories

15B750 Console bracket for Matrix meter
15D587 Matrix meter swivel cover replacement (black)
119571 Single battery cup replacement
246438 Meter bezel replacement kit
246439 Trigger replacement kit
246675 Electronics replacement kit

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