

azbil

MagneW Series
Smart Electromagnetic Flowmeters



Azbil North America, Inc.

MagneW 3000 PLUS+ Series

The MagneW™ 3000 PLUS+ series offers exceptional performance and high reliability. The PLUS+ series is ready for installations from 0.1 to 44 inch (2.5 to 1100mm) diameters, with both integral and remote units available. The large backlit LCD display features three simultaneous values: percent, actual and totalized flow rate. The one-touch infrared sensor enables you to display parameter settings without opening the converter cover, saving time and reducing the electronics' exposure to harsh environments. The converter supports HART® and DE standards.

Sample Applications:

pulp and paper	petrochemical
petroleum	beverage
chemical	public utilities

The detector body is fully welded stainless steel to ensure virtually maintenance-free operation, even in corrosive environments. Both flange and wafer pipe connection styles are offered. The PFA lining option withstands fluid temperatures up to 320° F (160° C) and process pressure up to 426 PSI (2.94 MPa). The patented mirror finish significantly reduces scaling. The PFA, ETFE and ceramic line detectors also prolong operating life in high temperature pressure and wear environments.

MagneW Two-wire PLUS+

Dramatically reduce wiring costs without sacrificing performance or accuracy through loop powered two-wire technology. The MagneW Two-Wire PLUS+ (TWP) lowers installation and maintenance costs compared to devices requiring four-wire cable runs. The TWP series also serves as an upgrade for mechanical two-wire flow measurement instruments.

The TWP series features DE and HART communications capabilities. The LCD displays three simultaneous values: percent, actual and totalized flow rate. Sample applications are:

Sample Applications:

cooling water	caustic or corrosive liquid
drainage waste	seawater
chemical solutions	process water

High Noise

The MagneW 3000 PLUS+ HENRI (High Energy Noise Resistant Instrument) is designed to mitigate noise effects in slurry applications. The proven high frequency pulsed DC excitation enables HENRI flowmeters to minimize noise-induced output fluctuations and to deliver a stable and accurate flow. The HENRI series is a remote type model, available from 1.5 to 16 inch (40 to 400mm) diameters.

Both the converter and the detector provide the same features as the MagneW 3000 PLUS+. High performance ETFE lining models extend operating life in abrasive environments common in pulp and paper and mining applications to more than 15 times that of PFA linings.

Proven Performance

Electromagnetic flowmeter applications can be varied and complex. Often the difference between a passable installation and successful implementation is a thin line. Success requires a deep understanding of project needs and the application of properly focused hardware and software. Azbil North America is dedicated to maintaining a broad portfolio of flowmeter designs and leveraging its 100+ years of experience to ensure that customer needs are understood and expectations are exceeded.

Today, Azbil flowmeters are operating in more than 100,000 loops worldwide, with more than 10,000 loops in North America alone. The Yamatake team brings advanced technology, a comprehensive product line, broad application experience and dedicated customer service to the North American market.

This brief overview of five major product categories offers a glimpse of over 100,000 possible configurations. To learn more, call 888-262-4639 or visit www.us.azbil.com.

MagCube

Designed specifically for indoor water utility applications such as chilled water systems, water filtration and water usage monitoring, the MagCUBE combines an integral converter with a stainless steel detector body offering a compact, lightweight design. Wafer style connections are available in 1 to 4 inch line sizes.

Specialty

Azbil offers numerous electromagnetic flowmeters designed to meet specific application requirements. Following is a brief overview of several general types:

Open Channel

The MagneW 3000 PLUS+ NNK series is designed for operation in open channels. By directly measuring flow rate with electromagnetic flowmeter technology, these units are free from foaming or sedimentation issues which cause problems with other open channel flow measurement technologies. The plastic housing structure also provides a perfect seal, ensuring up to 30 years of service life. The linear flow signal yields a measuring accuracy from 100% to 0 flow rate. These models are available in sizes from 2 to 24 inch diameters (50 to 500mm).

Submersible

Submersible models offer the same features as the MagneW 3000 PLUS+ and are designed to withstand submersion (NEMA 6P/IEC IP68).

Hyper-Fill

MagneW 3000 Hyper-Fill was developed for high speed filler machine applications in the food and beverage industry. Hyper-Fill is a magnetic flowmeter optimized for the sophisticated measurement demands in these industries. Highly repeatable measurement ensures precise dosing into bottles, pet bottles and other types of containers.



MagneW 3000 PLUS+ Specifications Overview

Converter

Type	Integral/Remote
Power Supply	90 to 130V, 180 to 250V AC 50/60Hz, 24 VDC
Structure	IEC IP66, NEMA 4X
Outputs	4-20 mA DC, Pulse, Contact options, HART®, DE
Inputs	Contact inputs (2 max)
Display	Backlit LCD
Data Setting	Infrared touch sensor
Power Consumption	11W max
Housing	Aluminum Alloy with baked acrylic or epoxy paint
Ambient Temp.	-13 to +140° F (-25 to +60° C)
Mounting	Integral/Wall/2 in. (50mm) pipe
Elec. Conductivity	3 μ S/cm minimum
Functions	Empty pipe detection, data setting protection, communication, etc.

Detector

Diameter	0.1 to 44 in. (2.5 to 1100 mm)
Type	Integral/Remote
Structure	IEC IP67 or IP68, NEMA 4X or 6
Pipe Connections	Flange/Wafer (ANSI 150/300)
Electrodes	SS316, Hastelloy C, Titanium, Zirconium, Tungsten Carbide, Tantalum, Platinum/Iridium, others
Grounding Rings	SS316, Hastelloy C, Titanium, Zirconium, Tantalum, Platinum, others
Lining	PFA, ETFE, Ceramic (Al2O3), Rubber
Housing	Stainless Steel 0.1 to 8 inch (2.5 to 200 mm) Carbon Steel 10 to 44 inch (250 to 1100 mm)
Fluid Temp	-40 to +320° F (-40 to +160° C)
Ambient Temp	-22 to +176° F (-30 to +80° C) remote model, PFA lining -13 to 140° F (-25 to +60° C) integral model

MagneW TWP Specifications Overview

Converter

Type	Integral/Remote
Loop Power	15.6 to 42 VDC
Structure	IEC IP67, NEMA 4X
Outputs	4-20 mA DC, Pulse, Contact options, HART, DE
Power Consumption	0.1 to 0.5W (depending on output current value)
Display	LCD main display, 7 segments, 8 digits, subdisplay 2 lines, 16 digits
Data Setting	4 key switches, communications
Housing	Aluminum Alloy with baked acrylic or epoxy paint
Ambient Temp.	-4 to +140° F (-20 to +60° C)
Mounting	Integral/Wall/2 in. (50mm) pipe
Elec. Conductivity	10 μ S/cm minimum
Functions	Data setting protection, low flow cutoff setting, dropout setting

Detector

Diameter	0.1 to 8 in. (2.5 to 200 mm)
Type	Integral/Remote
Structure	IEC IP67, NEMA 4X
Approvals	FM Explosion-proof (integral only)
Pipe Connections	Flange/Wafer (ANSI 150/300)
Electrodes	SS316L, Hastelloy C, Titanium, Zirconium, Tantalum, Platinum, others
Grounding Rings	SS316, Hastelloy C, Titanium, Zirconium, Tantalum, Platinum, others
Lining	PFA
Housing	304 Stainless Steel
Fluid Temp	-4 to +266° F (-20 to +130° C)
Fluid Pressure	14.2 to 426 PSI (-0.098 to 2.94MPa)
Ambient Temp	-14 to +140° F (-20 to +60° C)

MagneW HENRI PLUS+ Specifications Overview*

Converter

Type	Remote
Power Supply	90 to 264 VAC 50/60Hz
Structure	IEC IP66, NEMA 4X
Outputs	4-20 mA DC, Pulse, Contact options, HART®, DE
Inputs	Contact inputs (2 max)
Display	Backlit LCD
Data Setting	Infrared touch sensor
Power Consumption	30W max
Housing	Aluminum Alloy
Ambient Temp.	-13 to +122° F (-25 to +50° C)
Mounting	Wall/2 in. (50mm) pipe
Elec. Conductivity	20 μ S/cm minimum
Functions	Empty pipe detection, data setting protection, communication, etc.

Detector

Diameter	1.5 to 16 in. (40 to 400 mm)
Structure	IEC IP67, NEMA 4X
Pipe Connections	Flange/Wafer (ANSI 150/300)
Electrodes	SS316, Hastelloy C, Titanium, Zirconium, Tungsten Carbide, Tantalum, Platinum/Iridium, others
Grounding Rings	SS316, Hastelloy C, Titanium, Zirconium, Tantalum, Platinum, others
Lining	PFA, ETFE
Housing	Stainless Steel 1.5 to 8 inch (40 to 200 mm) Carbon Steel 10 to 16 inch (250 to 400 mm)
Fluid Temp	-40 to +320° F (-40 to +160° C)
Ambient Temp	-22 to +176° F (-30 to +80° C)

MagCUBE Specifications Overview*

Converter

Type	Integral
Power Supply	24 VDC
Housing	Polycarbonate
Display	Backlit LCD simultaneously displays % flow rate, actual volumetric flowrate, totalized value
Data Setting	4 key switches
Power Consumption	2.4 W max
Output	4-20mA, Pulse (open collector)
Diameter	1 to 4 in. (25 to 100 mm)
Pipe Connections	Wafer, ANSI 150
Electrodes	316L SS
Grounding Rings	304 SS
Lining	Polypropylene
Body Housing	304 SS
Conductivity	50 μ S/cm minimum

* The specifications are a summary. Contact Azbil North America, Inc. to request detailed specifications.

HART® is a trademark of the Hart Communication Foundation

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