



MAGFLUX

Технические характеристики

По вопросам продаж и поддержки обращайтесь:

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Астана +7(7172)727-132	Калуга (4842)92-23-67	Новокузнецк (3843)20-46-81	Сочи (862)225-72-31
Белгород (4722)40-23-64	Кемерово (3842)65-04-62	Новосибирск (383)227-86-73	Ставрополь (8652)20-65-13
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Владивосток (423)249-28-31	Краснодар (861)203-40-90	Оренбург (3532)37-68-04	Томск (3822)98-41-53
Волгоград (844)278-03-48	Красноярск (391)204-63-61	Пенза (8412)22-31-16	Тула (4872)74-02-29
Вологда (8172)26-41-59	Курск (4712)77-13-04	Пермь (342)205-81-47	Тюмень (3452)66-21-18
Воронеж (473)204-51-73	Липецк (4742)52-20-81	Ростов-на-Дону (863)308-18-15	Ульяновск (8422)24-23-59
Екатеринбург (343)384-55-89	Магнитогорск (3519)55-03-13	Рязань (4912)46-61-64	Уфа (347)229-48-12
Иваново (4932)77-34-06	Москва (495)268-04-70	Самара (846)206-03-16	Челябинск (351)202-03-61
Ижевск (3412)26-03-58	Мурманск (8152)59-64-93	Санкт-Петербург (812)309-46-40	Череповец (8202)49-02-64
Казань (843)206-01-48	Набережные Челны (8552)20-53-41	Саратов (845)249-38-78	Ярославль (4852)69-52-93

General

MagFlux® Electromagnetic Flow Meters deliver very stable and highly accurate flow measurements in conductive liquids.

MagFlux® Flow Meters have no moving parts to foul, create no hydraulic influence on the flow, use a well proven technology, and communicate using a standard protocol.

MagFlux® Flow Sensors are available in sizes ranging from 1/4" to 48", with standard construction lengths and connections.

MagFlux® Flow Meters can be installed either with the electronics mounted on the flow sensor, on a wall, or mounted in a panel.

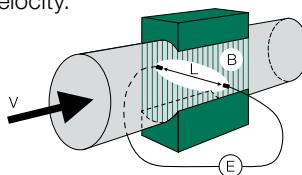
Applications

MagFlux® Flow Meters are used for measuring and totalizing flow of conductive liquids in pressurized closed pipe systems.

MagFlux® Flow Meters measure flow in both directions of potable water, wastewater and process fluids.

Function

The **MagFlux®** operation is based on Faraday's law of induction. When a conductive fluid passes through a magnetic field in the sensor, an electromagnetic voltage is induced between the two electrodes in the flow sensor tube. This voltage (E) is directly proportional to the fluid velocity.



When the internal diameter of the Flow Sensor is known, the actual volume is calculated by the Converter. The electromagnetic voltage induced between the electrodes equates to:

$$E = L \times B \times V \text{ where:}$$

- E: Induced electromagnetic voltage
- L: Flow sensor diameter
- B: The strength of the magnetic field
- V: The velocity of the liquid

The voltage E is measured and consequently converted to a volumetric flow.

Flexible Installation

MJK's modular design is versatile. The Display Unit can be mounted up to 3,000 ft from the Flow Converter with ordinary twisted wires. It also provides an option for mounting the Converter where it is most convenient to

make the electrical connections. One Display Unit can control up to 4 Converters and Flow Sensors for greater economy, space savings and an improved overview of the multiple measurement values.

The MagFlux® Converter and Display Unit mounted directly on the Flow Sensor.

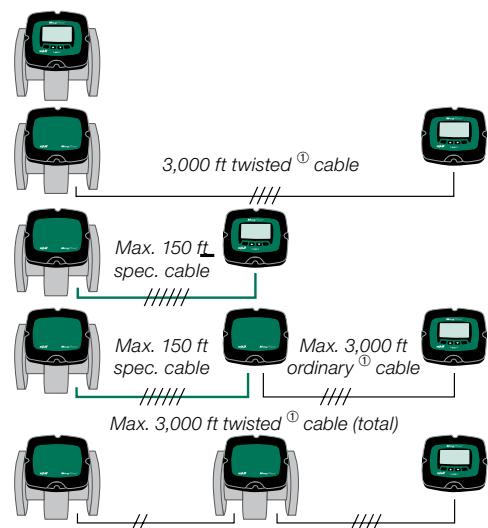
The MagFlux® Converter mounted directly on the flow sensor with remote mounted Display Unit.

① In noisy environments, twisted shielded cable is recommended.

The MagFlux® Converter and Display Unit remote mounted. E.g. when the sensor is being buried or submerged.

The MagFlux® Converter is mounted remote from the Flow Sensor, and the Display Unit is mounted separately from the Converter. For example when the Sensor is being buried or submerged.

The MagFlux® Converters are mounted directly on the Flow Sensors, while the remote mounted Display Unit communicates with 2 MagFlux® Converters and Flow Sensors.



Simple to Operate

The *MagFlux®* Display Unit has many unique and intelligent functions. It has a simple cell-phone-like menu structure and displays text in several selectable languages, and in metric or American units.

Easy-to-use Menu Structure

The *MagFlux®*'s PC connection allows downloading configurations and logged data to a PC, and for uploading new software updates and instrument customization. All with intuitive steps using a common USB port.

Registering the Flow Sensor

The *MagFlux®* System registers the Flow Sensor to the Converter using a unique coded six-digit serial number technique. It sets calibration data, the nominal diameter and the sensor configuration – making the *MagFlux®* System ready to measure immediately. This avoids complicated and sensitive field calibration and delicate electronics in the sensor, and allows unlimited interchanging of *MagFlux®* Converters and Flow Sensors.

Counters for Flow in Both Directions

The *MagFlux®* Converter has resetable and non-resetable counters for flow in both directions. *MagFlux®* has two batch counters with smart adaptive batch counting.

Forward and Backwards Flow Measurement and Totalizing

The *MagFlux®* System measures flow in both directions and can totalize the net flow for both. A simple menu selection determines the normal flow direction.

Data Logger

The *MagFlux®*'s built-in 256 kB data logger logs 20,000 entries with time and date. The data is displayed graphically, or can be exported to a PC via the USB port on the Display Unit.

Flexible In- and Outputs

The *MagFlux®* Converter has a 4-20 mA output, two digital outputs and one digital input. The digital input can stop and zero counter settings, or manually control the batch counters. Each alarm can be displayed as a pop up alarm until they are reset.

Automatic Electrode Cleaning

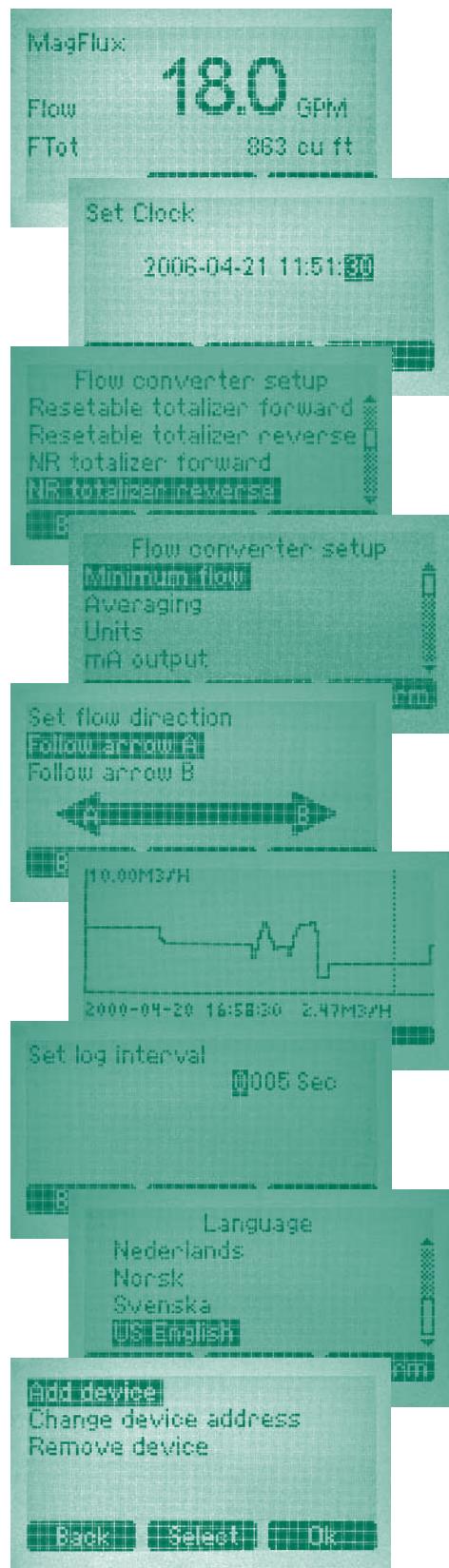
The *MagFlux®*'s built-in electronic electrode cleaning system is always active.

User Definable Text

The *MagFlux®* display can be configured by the user for up to five lines of text. The graphic display is automatically adjusted to show the largest characters possible.

Modbus® Communication

The Display Unit uses the Modbus® communication protocol to connect to the *MagFlux®* Converter or a PLC.



Data Sheet

MagFlux® Electromagnetic Flow Meter

Specifications

Converter and Display Unit

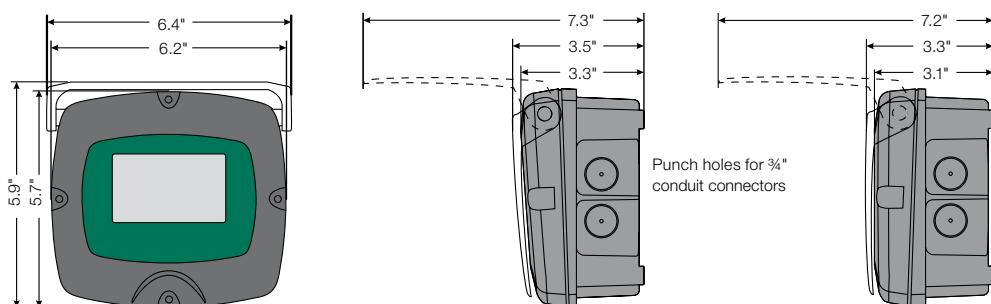
Display unit	
Enclosure rating	Dust- and waterproof IP 67, NEMA 6 (when mounted on Converter)
Housing material	Polycarbonate, glass reinforced
Protection lid	Transparent polycarbonate
Display	1.5" x 2.7" white backlit LCD-display (64 x 128 pixels) with softkeys
Indication	Indication of flow, flow direction, volume, totalizers, configuration and graph
Clock	Real-time clock with built-in battery backup
Communication	MODBUS® RTU-mode 9600 baud 2-wire RS 485, master-mode
Interface	RS 485 for connection to 1 - 4 MagFlux Converters or SCADA system
Memory	256 Kb Flash Memory, 20,000 entries with date, time and value
Interface	USB 1,1 type mini B, Female
Temperature range	-5 - 150° F

Converter	
Accuracy	+/- 0.1% of reading
Measuring range	Min. range = 0 - 0.6 ft / sec. Max. range = 0 - 30 ft / sec
Min. liquid conductivity	≥ 5 µS
Analog output	One active 4 - 20 mA, galvanically isolated (max. load 800 Ω)
Digital outputs	One voltage-free electromechanical relay (max. 50 VDC / 1 A) One optically isolated MOSFET relay (max. 50 VAC / VDC / 120 mA) Programmable for totalizer counter, batch counter, high/low flow, system error, empty pipe and flow direction.
Digital inputs	one, max. 30 V DC, < 5 VDC = 0 (low), > 10 VDC = 1 (high), pulse length > 100 ms
Communication	MODBUS® RTU-mode, 9600 baud, 2-wire RS 485, slave-mode
Interface	RS 485 for connection to Display Unit or PLC
Power supply	24 V AC, 50 / 60 Hz ± 10 % or 115 V AC, 50 / 60 Hz ± 10 % or 230 V AC, 50 / 60 Hz ± 10 % Power consumption max. 10 W
Cabinet material	Polycarbonate, glass reinforced
Enclosure rating	NEMA 6X, IP 67
Temperature range	-5 - 150° F
Weight	1.0 kg
CE approvals	EN 61000-6-4:2001, EN 61000-6-2:2001

Connection box	
Enclosure rating	NEMA 6P (using gel potting kit part no. 579036). The flowmeter can withstand unlimited immersion of 30 ft. water.
Cabinet material	Polycarbonate, glass reinforced
Temperature range	- 20 ... 200° F

Mechanical Dimensions

Converter and Display Unit



NEMA-6P Protection

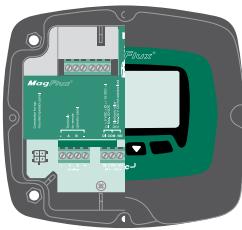
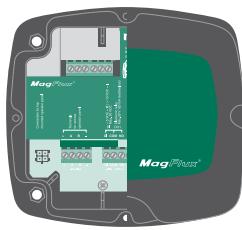
If the *MagFlux®* Sensor has to be buried or submerged under water, the Converter and Display Unit must be remote mounted and the electrical connection to the sensor must be potted using gel potting kit part no. 579035.

Order Numbers**MagFlux® Converters,
Displays and Accessories**

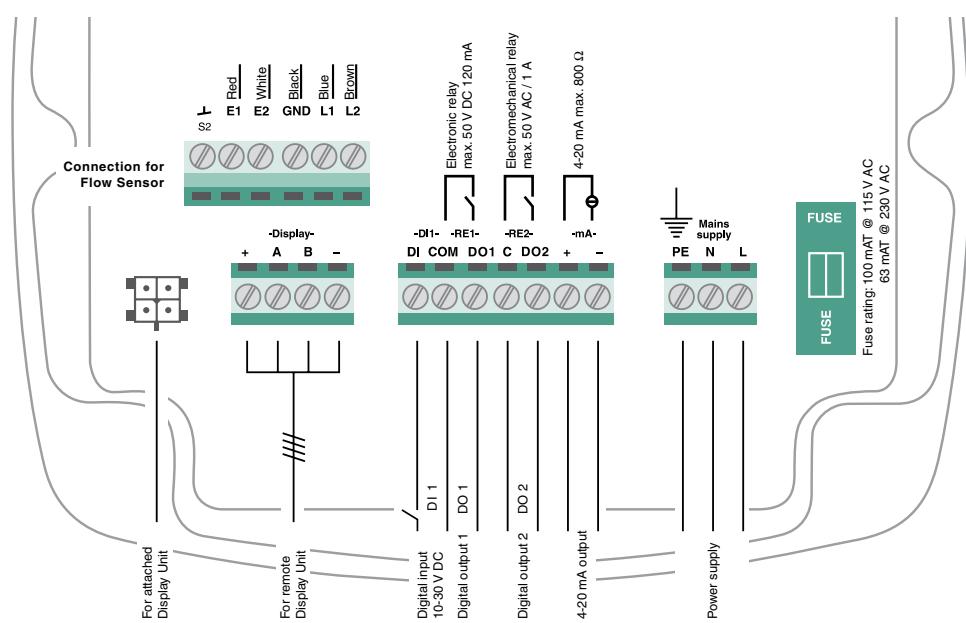
MagFlux® converter	
297910	<i>MagFlux®</i> Converter (blind) for sensor mounting 115 V AC
297911	<i>MagFlux®</i> Converter (blind) for sensor mounting 24 V AC
297912	<i>MagFlux®</i> Converter (blind) 10 - 30 V DC
297920	<i>MagFlux®</i> Converter with Display Unit for Flow Sensor mounting 115 V AC
297921	<i>MagFlux®</i> Converter with Display Unit for Flow Sensor mounting 24 V AC
297922	<i>MagFlux®</i> Converter with Display Unit 10 - 30 V DC
297926	<i>MagFlux®</i> Converter with Display Unit for wall mounting 24 V AC

Accessories

207930	<i>MagFlux®</i> Wall Mounting Kit
207935	<i>MagFlux®</i> Panel Mounting Bracket
207937	<i>MagFlux®</i> Lightning Protection Kit
207940	<i>MagFlux®</i> Display Unit
579035	<i>MagFlux®</i> Gel Potting Kit
691080	<i>MagFlux®</i> Sensor Cable
691095	<i>MagFlux®</i> USB Cable
840110	MJK-Field Link software for communication between <i>MagFlux®</i> and PC

297920, *MagFlux®* Converter with Display Unit for Sensor Mounting297930, *MagFlux®* Wall Mounting Kit207935, *MagFlux®* Panel Mounting Bracket

MagFlux® mounted in panel

**Electrical Connections
on the Converter**

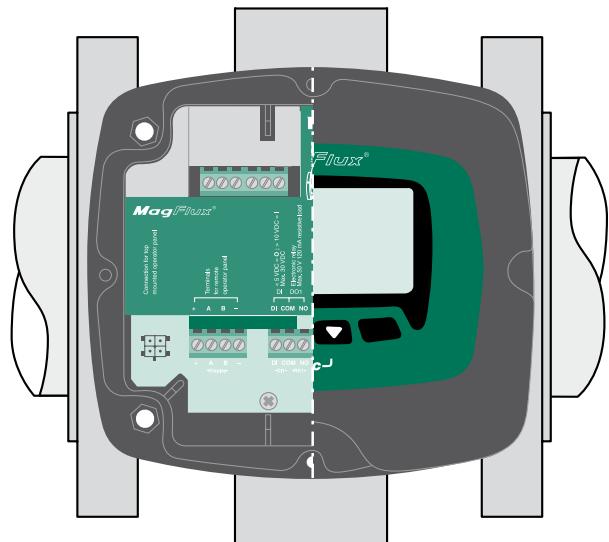
Example 1

Compact Converter
and Display Unit on
Flow Sensor

Order numbers

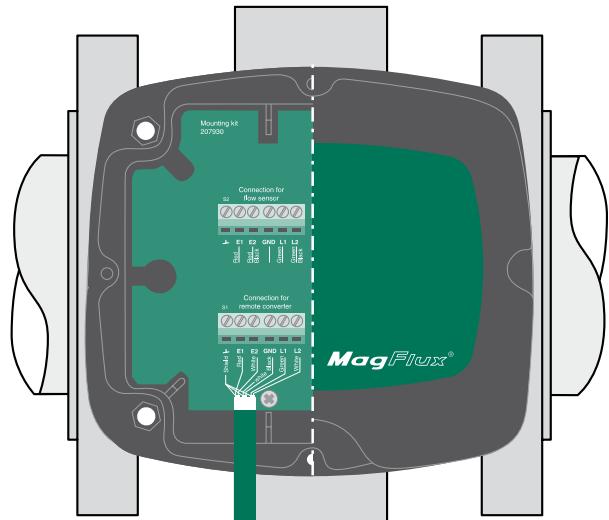
297xxx MagFlux® Flow Sensor

297920 MagFlux® Converter
with Display Unit for sensor
mounting 230/115 V AC

**Example 2**

Remote Converter,
Connection Box on
Flow Sensor

If the *MagFlux®* Sensor is to be buried or submerged under water, the Converter and Display Unit must be remote mounted and the electrical connection to the Flow Sensor must be potted using Gel Potting Kit part no. 579036.



Converter and Display Unit in
Wall/Panel Housing

Order numbers

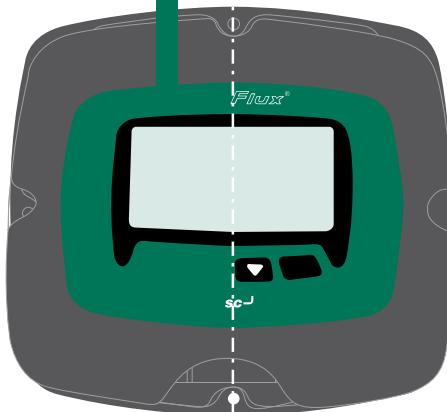
297xxx MagFlux® Flow Sensor

297920 MagFlux® Converter
with Display Unit for sensor
mounting 230/115 V AC

297930 MagFlux® Wall Mounting
Kit

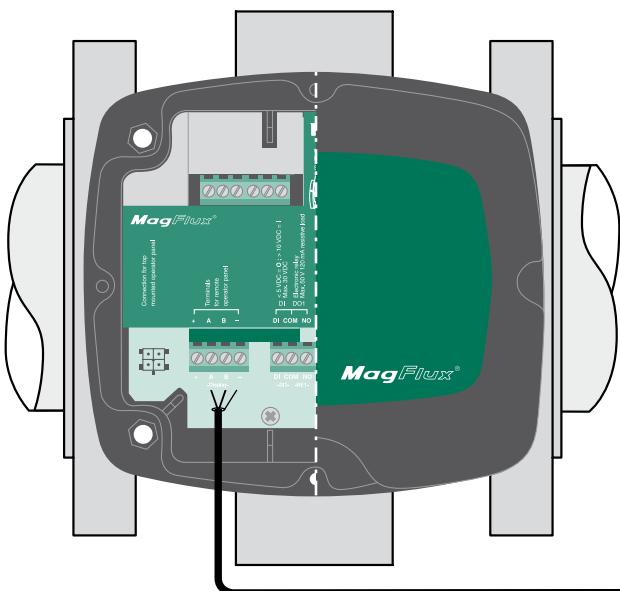
691080 MagFlux® Sensor
Cable

207936 MagFlux® Gel Potting
Kit NEMA-6P



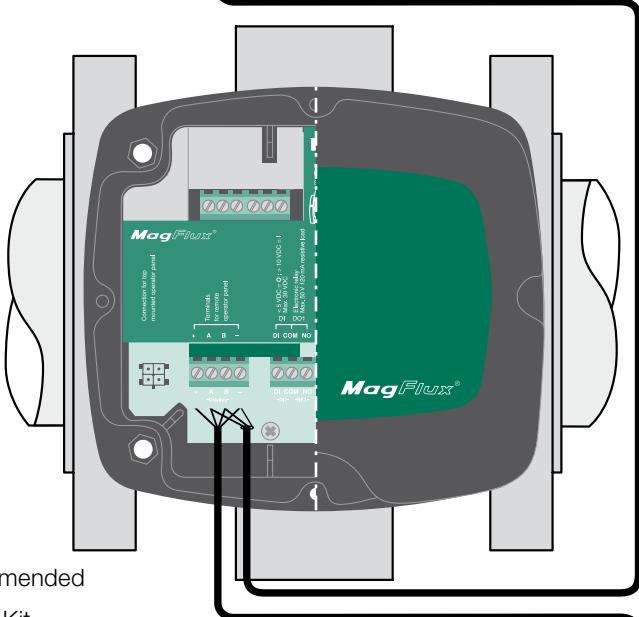
Example 3**Remote Display Unit and
Multiple Converter Wiring**

The communication between the Display Unit is carried out on a 2-wire cable using a Modbus® communication on the RS-485 transmission lines.



2-wire twisted cable
(max. 3000 ft).
Twisted shielded cable is
recommended

Two additional wires supply
power from one of the
Converters to the Display Unit.



4-wire cable (max. 3000 ft).
Twisted shielded cable is recommended

Display Unit on Wall Mounting Kit.
The Display Unit can operate up to
four Converters.

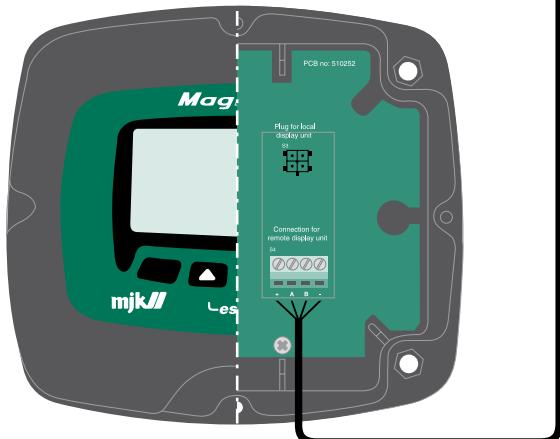
Order numbers

2 pcs. 297XXX MagFlux®
Flow Sensor

297910 MagFlux® Converter
(blind) for sensor mounting
230/115 V AC

297920 MagFlux® Converter
with Display Unit for sensor
mounting 230/115 V AC

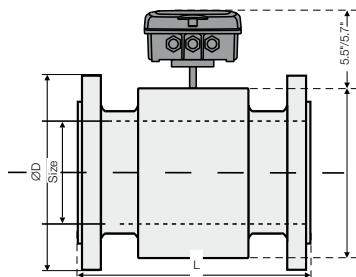
297930 MagFlux® Wall Mounting Kit



Data Sheet

MagFlux® Electromagnetic Flow Meter

Flow Sensor 7100/7200



Flow Sensor 7100

Housing: Carbon steel
Lining: PTFE

Sizes and Ordering Information					
	Pres- sure	D	L	Weight	Order no.
Size	[psi]②	[in]	[in]	[lb]	
1/2"	150	3.5	7.9	8	297107
3/4"	150	3.9	7.9	8	297110
1"	150	4.3	7.9	8	297113
1 1/4"	150	4.6	7.9	13	297116
1 1/2"	150	5.0	7.9	15	297119
2"	150	6.0	7.9	18	297122
2 1/2"	150	7.0	7.9	22	297125
3"	150	7.5	7.9	26	297128
4"	150	9.0	9.8	35	297131
5"	150	10.0	9.8	46	297134
6"	150	11.0	11.8	62	297137
8"	150	13.5	13.8	77	297140
10"	150	16.0	17.7	95	297143
12"	150	19.0	19.7	121	297146
14"	150	21.0	21.7	146	297149
16"	150	23.5	23.6	207	297152

② 300-600-900 psi. Consult the factory.

Specifications

Mounting	Flange ANSI B 16.5
Materials	
Housing ⑥	Carbon steel
Flanges ⑥	Carbon steel
Lining	PTFE
Electrodes ③ ⑤	AISI 316 TI
Accuracy ④	Better than $\pm 0.25\%$
Media temp. range	0...300 °F
Ambient temp. range	
Compact converter	15...140 °F
Remote converter	0...200 °F
Enclosure	NEMA 4 (IP67)/ NEMA 6P (IP 68)

③ Hastelloy C4, platinum and titanium. Consult the factory.

④ Of measured value.

⑤ From 2" and up, build in ground electrode.

⑥ Also available in Steel 304/316 SS. Consult the factory.

Flow Sensor 7200

Housing: Carbon steel
Lining: Hard rubber

Sizes and Ordering Information					
	Pres- sure	D	L	Weight	Order no.
Size	[psi]②	[in]	[in]	[lb]	
1/2"	150	3.5	7.9	8	297207
3/4"	150	3.9	7.9	8	297210
1"	150	4.3	7.9	8	297213
1 1/4"	150	4.6	7.9	13	297216
1 1/2"	150	5.0	7.9	15	297219
2"	150	6.0	7.9	18	297222
2 1/2"	150	7.0	7.9	22	297225
3"	150	7.5	7.9	26	297228
4"	150	9.0	9.8	35	297231
5"	150	10.0	9.8	46	297234
6"	150	11.0	11.8	62	297237
8"	150	13.5	13.8	77	297240
10"	150	16.0	17.7	95	297243
12"	150	19.0	19.7	121	297246
14"	150	21.0	21.7	146	297249
16"	150	23.5	23.6	207	297252
18"	150	25.0	23.6	231	297255
20"	150	27.5	23.6	269	297258
24"	150	32.0	23.6	348	297261
28"	150	36.5	23.6	507	297264
32"	150	41.4	31.5	717	297267
36"	150	46.0	31.5	926	297270
40"	150	50.2	31.5	1124	297273
48"	150	59.4	39.4	1499	297276

② 300-600-900 psi. Consult the factory.

Specifications

Mounting	Flange ANSI B 16.5
Materials	
Housing	Carbon steel
Flanges	Carbon steel
Lining	Hard rubber
Electrodes ③ ⑤	AISI 316 TI
Accuracy ④	Better than $\pm 025\%$
Media temp. range	15...175 °F
Ambient temp. range	
Compact converter	15...140 °F
Remote converter	15...175 °F
Enclosure	NEMA 4 (IP67)/ NEMA 6P (IP 68)

③ Hastelloy C4, platinum and titanium. Consult the factory.

④ Of measured value.

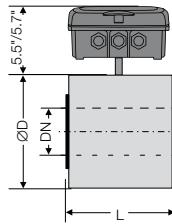
⑤ From 2" and up, build in ground electrode.

⑥ Also available in Steel 304/316 SS. Consult the factory.

Data Sheet

MagFlux® Electromagnetic Flow Meter

Flow Sensor 7300/7400



Flow Sensor 7300

Housing: Carbon steel
Lining: PTFE

Sizes and Ordering Information					
Size	Pressure [psi]	D [in]	L [in]	Weight [lb]	Order no.
1/4"	150	4.1	3.9	2	207302
3/8"	150	4.1	3.9	2	207304
1/2"	150	2.4	2.9	1	207307
3/4"	150	2.4	2.9	2	207310
1"	150	2.8	4.1	3	207313
1 1/4"	150	3.2	4.1	4	207316
1 1/2"	150	3.6	4.1	5	207319
2"	150	4.2	4.1	6	207322
2 1/2"	150	5.0	4.1	7	207325
3"	150	5.6	4.1	8	207328
4"	150	6.4	4.1	9	207331
5"	150	7.6	5.3	13	207334
6"	150	8.6	5.3	18	207337
8"	150	10.8	8.6	22	207340

② 300-600-900 psi. Consult the factory.

Specifications

Mounting	Wafer
Materials	
Housing	Carbon steel
Lining	PTFE
Electrodes ③ ⑤	AISI 316 TI
Accuracy ④	Better than $\pm 0.25\%$
Media temp. range	0...300 °F
Ambient temp. range	
Compact converter	15...140 °F
Remote converter	0...200 °F
Enclosure	NEMA 4 (IP67)
③ Hastelloy C4, platinum, and titanium. Consult the factory.	
④ Of measured value.	
⑤ From 2" and up, build in ground electrode.	
⑥ Also available in Steel 304/316 SS. Consult the factory.	

Flow Sensor 7400

Housing: Carbon steel
Lining: Hard rubber

Sizes and Ordering Information					
Size	Pressure [psi]	D [in]	L [in]	Weight [lb]	Order no.
1/2"	150	2.4	2.9	1	207407
3/4"	150	2.4	2.9	2	207410
1"	150	2.8	4.1	3	207413
1 1/4"	150	3.2	4.1	4	207416
1 1/2"	150	3.6	4.1	5	207419
2"	150	4.2	4.1	6	207422
2 1/2"	150	5.0	4.1	7	207425
3"	150	5.6	4.1	8	207428
4"	150	6.4	4.1	9	207431
5"	150	7.6	5.3	13	207434
6"	150	8.6	5.3	18	207437
8"	150	10.8	8.6	22	207440

② 300-600-900 psi. Consult the factory.

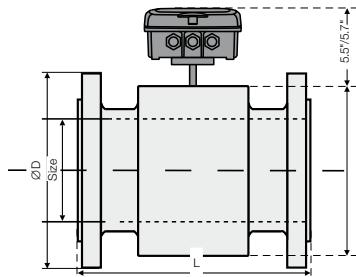
Specifications

Mounting	Wafer
Materials	
Housing	Carbon steel
Lining	Hard rubber
Electrodes ③ ⑤	AISI 316 TI
Accuracy ④	Better than $\pm 0.25\%$
Media temp. range	15...175 °F
Ambient temp. range	
Compact converter	15...140 °F
Remote converter	15...175 °F
Enclosure	NEMA 4 (IP67)
③ Hastelloy C4, platinum, and titanium. Consult the factory.	
④ Of measured value.	
⑤ From 2" and up, build in ground electrode.	
⑥ Also available in Steel 304/316 SS. Consult the factory.	

Data Sheet

MagFlux® Electromagnetic Flow Meter

Flow Sensor 7600



Flow Sensor 7600

Housing: Carbon steel

Lining: Soft rubber

Sizes and Ordering Information					
	Pressure [psi] ②	D [in]	L [in]	Weight [lb]	Order no.
Size					
1/2"	150	3.5	7.9	8	297607
3/4"	150	3.9	7.9	8	297610
1"	150	4.3	7.9	8	297613
1 1/4"	150	4.6	7.9	13	297616
1 1/2"	150	5.0	7.9	15	297619
2"	150	6.0	7.9	18	297622
2 1/2"	150	7.0	7.9	22	297625
3"	150	7.5	7.9	26	297628
4"	150	9.0	9.8	35	297631
5"	150	10.0	9.8	46	297934
6"	150	11.0	11.8	62	297937
8"	150	13.5	13.8	77	297940
10"	150	16.0	17.7	95	297643
12"	150	19.0	19.7	121	297646
14"	150	21.0	21.7	146	297649
16"	150	23.5	23.6	207	297652
18"	150	25.0	23.6	231	297655
20"	150	27.5	23.6	269	297658
24"	150	32.0	23.6	348	297661
28"	150	36.5	23.6	507	297664
32"	150	41.4	31.5	717	297667
36"	150	46.0	31.5	926	297670
40"	150	50.2	31.5	1124	297673
48"	150	59.4	39.4	1499	297676

② 300-600-900 psi. Consult the factory.

Specifications

Mounting Flange ANSI B 16.51

Materials

Housing Carbon steel

Flanges Carbon steel

Lining Soft rubber

Electrodes ③ ⑤ AISI 316 TI

Accuracy ④ Better than $\pm 0.25\%$

Media temp. range 15...175 °F

Ambient temp. range

Compact converter 15...140 °F

Remote converter 15...175 °F

Enclosure NEMA 4 (IP67)/

NEMA 6P (IP 68)

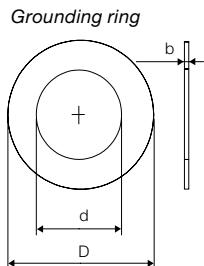
③ Hastelloy C4, platinum, and titanium. Consult the factory.

④ Of measured value.

⑤ From 2" and up, build in ground electrode.

⑥ Also available in Steel 304/316 SS. Consult the factory.

Grounding rings



Sizes and Ordering Information					
	D [in]	d [in]	b [in]	Weight [lb]	Order no.
Size					
1/2"	2.0	1	0.25	0.13	207807
3/4"	2.4	1.1	0.25	0.18	207810
1"	2.8	1.4	0.25	0.22	207813
1 1/4"	3.2	1.7	0.25	0.29	207816
1 1/2"	3.6	1.9	0.25	0.35	207819
2"	4.2	2.4	0.25	0.45	207822
2 1/2"	5.0	3.0	0.25	0.57	207825
3"	5.6	3.5	0.25	0.70	207828
4"	6.4	4.5	0.25	0.88	207831
5"	7.6	5.5	0.25	1.10	207834
6"	8.6	6.7	0.25	1.32	207837

Sizes and Ordering Information

	D [in]	d [in]	b [in]	Weight [lb]	Order no.
Size					
8"	10.7	8.7	0.25	1.76	207840
10"	12.9	10.8	0.25	2.20	207843
12"	14.9	12.8	0.25	2.64	207846
14"	17.2	14.2	0.25	3.10	207849
16"	19.3	16.1	0.25	3.50	207852
18"	21.2	18.2	0.25	4.00	207855
20"	23.4	20.2	0.25	4.40	207858

Specifications

Material AISI 316 SS

Wire AWG 13

Flow Sensor Sizing

Min and max flow									
Size	Qmin		Qmax		Size	Qmin		Qmax	
	0.6 ft./s [GPM]	30 ft./s [GPM]	30 ft./s [GPM]	30 ft./s [GPM]		0.6 ft./s [GPM]	30 ft./s [GPM]	0.6 ft./s [GPM]	30 ft./s [GPM]
					¾"	0.995	49.76	2½"	10.52
					1"	1.550	77.82	3"	15.93
¼"	0.091	4.45			1¼"	2.549	127.4	4"	24.87
3/8"	0.249	12.4			1½"	3.984	199.7	5"	38.92
½"	0.559	28.0			2"	6.226	310.7	6"	55.91
									2800

Min and max flow									
Size	Qmin		Qmax		Size	Qmin		Qmax	
	0.6 ft./s [GPM]	30 ft./s [GPM]	30 ft./s [GPM]	30 ft./s [GPM]		0.6 ft./s [GPM]	30 ft./s [GPM]	0.6 ft./s [GPM]	30 ft./s [GPM]
8"	99.50	4,979	18"	506.3	25,210	36"	2017	100,800	
10"	155.4	7,780	20"	620.8	31,120	40"	2497	124,500	
12"	224.1	11,205	24"	999.1	44,910	48"	3584	179,300	
14"	305.1	15,258	28"	1220	74,920	20mA output is factory preset to Qmax			
16"	398.5	19,919	32"	1594	79,620				

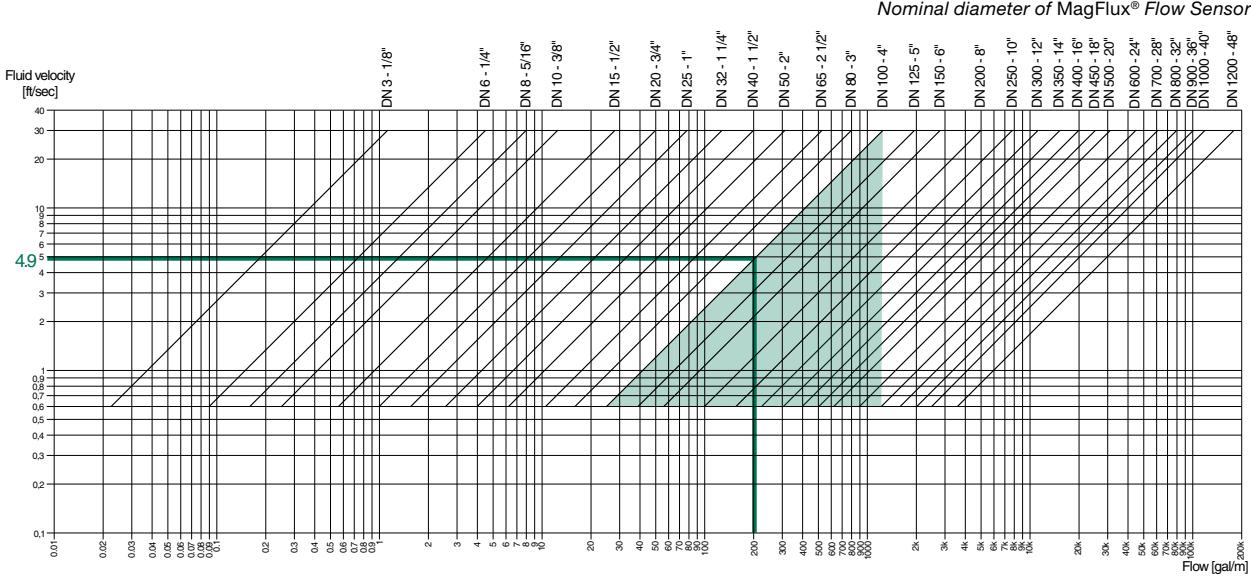
To calculate the correct size of Flow Sensor, the recommended flow velocity must be between 3 ft/s and 10 ft/s to achieve the highest possible accuracy.

The flow curves and graphs below illustrate how the Flow Sensor is calculated to get the required measuring accuracy.

Example

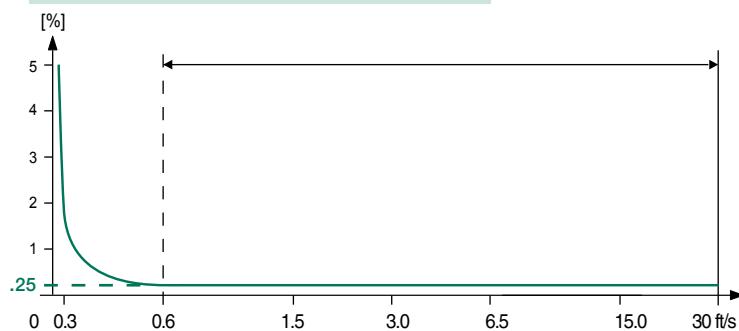
A volume of 220 GPM is running through a pipe that measures 4" in internal diameter. To select the correct MagFlux® Flow Sensor, the liquid velocity should be in the range 3 ft/s - 10 ft/s for 220 GPM.

If a MagFlux® Flow Sensor with the same inner diameter as the pipe is selected (4"), the flow velocity will be 4.9 ft/s at a flow rate of 200 GPM. The diagram and the table below also shows that a flow between 24.87 and 1,246 GPM can be measured.



Measurement Accuracy**Example**

If a 4 inch MagFlux® Flow Sensor is selected, the diagram shows the available measuring accuracy between 0.6 ft/s to 30 ft/s (here: .25%).

**Reducing the Flow Meter Size**

When the size of the Flow Meter is reduced to cause the flow to reach a sufficient velocity, the pipe size has to be reduced. This will cause a pressure loss which can be calculated using the pressure loss chart at the right.

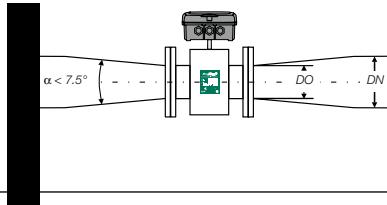
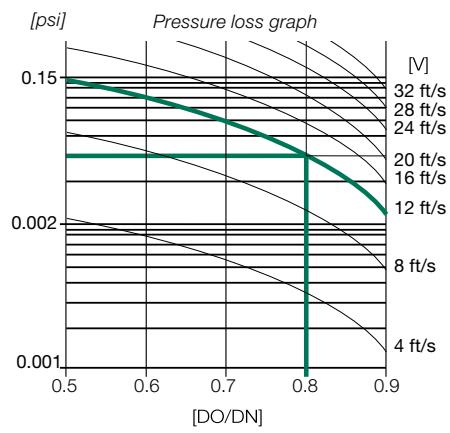
When the MagFlux® Sensor is smaller than nominal pipe diameter, the pressure loss can be checked, using the pressure loss chart.

Example:

A MagFlux® Flow Sensor with an internal diameter of 3 in. is selected and the pipe size is 4 in., the fluid velocity for a flow of approximately 220 GPM will increase to about 10 ft/s.

Using a 3 in. MagFlux® flow sensor, a smaller measurement range (from 15,93 GPM to 796,9 GPM) will be available.

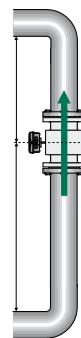
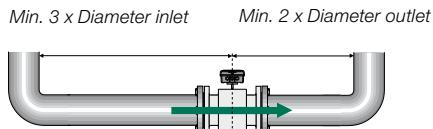
The diagram shows that reducing the pipe size 4 in. to 3 in. will cause a pressure loss of 0.0435psi.

**Sensor Mounting Conditions**

Accurate flow measurement requires a minimum of three (3) pipe diameters of straight pipe upstream and two (2) pipe

diameters of straight pipe downstream from the center of the Flow Sensor.

Minimum pipe diameter distances for accurate MagFlux® flow measurements





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