

**ISM 5.0 Insertion Electromagnetic Meter**

Approximate shipping weight: 6 lbs / 2.7 kg

**STANDARD FEATURES:***Quad-electrode sensor**Watertight, airtight, dust-proof cast aluminum electronics enclosure**Analog output – selectable 4-20mA, 0-5V or 0-10V**Frequency output – 0-500Hz, for remote display option**Pulse output – scalable**Power input – 20-28VDC or 20-28VAC**Signal cable length – 25 ft (7.6 m) multi-conductor, submersible**NIST traceable calibration certificate**1 Manual - Installation and Operation***Model**

Please configure model on next page



*ISM 5.0 Insertion Electromagnetic Meter*
**Model**
**ISM 5.0**
**- - -**
**FLOW DIRECTION**

Standard – Single Direction		A
Bi-directional with 2 pulse outputs and flow direction relay		B

**POWER INPUT**

Standard - 20-28VDC / 20-28VAC		1
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**METER LENGTH (bottom of enclosure to bottom of sensor)**

Standard - 20" (508mm) for 3-16" (DN 80-400) nominal pipes		A
24" (610mm) for 18-72" (DN 450-1800) nominal pipes		B
Custom		C

**OPTIONS AND ACCESSORIES**

*Separate additional length signal cable, submersible PVC jacketed, multi-conductor*

<b>Code</b>	<b>Description</b>
25 MXC	25 ft (7.6 m) length
50 MXC	50 ft (15 m) length
100 MXC	100 ft (30 m) length

**Grounding Rings and Probes**

<b>Code</b>	<b>Description</b>
HTGP2	1 Pair of Hot Tap Stainless Steel Grounding Probes (requires installation kit for each ground probe, ordered separately - see Options and Accessories section)
HTGP1	1 (single) Hot Tap Stainless Steel Grounding Probe (requires installation kit for each ground probe, ordered separately - see Options and Accessories section)
GR3	3" Pair of Grounding Rings, ANSI Class 150
GR4	4" Pair of Grounding Rings, ANSI Class 150
GR6	6" Pair of Grounding Rings, ANSI Class 150
GR8	8" Pair of Grounding Rings, ANSI Class 150
GR10	10" Pair of Grounding Rings, ANSI Class 150
GR12	12" Pair of Grounding Rings, ANSI Class 150
GR14	14" Pair of Grounding Rings, ANSI Class 150
GR16	16" Pair of Grounding Rings, ANSI Class 150
GR18	18" Pair of Grounding Rings, ANSI Class 150
GR20	20" Pair of Grounding Rings, ANSI Class 150
GR24	24" Pair of Grounding Rings, ANSI Class 150

**Remote Displays**

<b>Code</b>	<b>Description</b>
D-100-120	Microprocessor-based rate/total display with 2 auxiliary analog inputs, and bi-directional input. 120VAC input power.
D-100-024	Microprocessor-based rate/total display with 2 auxiliary analog inputs, and bi-directional input. 120VAC input power.
D-100-240	Microprocessor-based rate/total display with 2 auxiliary analog inputs, and bi-directional input. 120VAC input power.
D-100-MOD-120	Microprocessor-based rate/total display with 2 auxiliary analog inputs, plus MODBUS®-RTU RS485 or TCP/ IP serial interface. 120VAC input power
D-100-MOD-024	Microprocessor-based rate/total display with 2 auxiliary analog inputs, plus MODBUS®-RTU RS485 or TCP/ IP serial interface. 24VAC input power
D-100-MOD-240	Microprocessor-based rate/total display with 2 auxiliary analog inputs, plus MODBUS®-RTU RS485 or TCP/ IP serial interface. 240VAC input power
D-1201-01-120 <sup>1,2</sup>	Display Module: 1 LCD, flow rate and/or total. 120VAC input power
D-1201-01-024 <sup>1,2</sup>	Display Module: 1 LCD, flow rate and/or total. 24VAC input power
D-1201-01-240 <sup>1,2</sup>	Display Module: 1 LCD, flow rate and/or total. 240VAC input power

<sup>1</sup> FLOW DIRECTION = A only. Use the D-100 when FLOW DIRECTION = B

<sup>2</sup> Flow Rate and Total cannot be set for MGD and Gal x 1 Mil. Use D-100 for these requests

**"STANDARD" Installation Kits (Dry Pipe Installation of Kit)**
**Carbon Steel Welded Pipe**

Code	Kit Description	Kit Includes	
INSL01DW-FMD	Installation kit for 3" and larger welded steel domestic water pipes (Valve & nipple comply with NSF/ANSI 61 & 372)	<ul style="list-style-type: none"> <li>• 1" full port bronze ball valve</li> <li>• 1" weld-on carbon steel branch outlet</li> <li>• 1" brass close nipple</li> </ul>	
INSL01DW-FMD	Stainless steel installation kit for 31/2" and larger welded steel pipe	<ul style="list-style-type: none"> <li>• 1" full port SS ball valve</li> <li>• 1" weld-on carbon steel branch outlet</li> <li>• 1" SS close nipple</li> </ul>	

**Copper Tube**

F-STD-INSTL4	Installation kit for 3" copper tube (Complies with NSF/ANSI 61 & 372)	<ul style="list-style-type: none"> <li>• 1" full port bronze ball valve</li> <li>• 1" copper street adapter with MNPT threads</li> <li>• Copper tee with 1" outlet</li> </ul>	
F-STD-INSTL9	Installation kit for 4" copper tube (Complies with NSF/ANSI 61 & 372)	<ul style="list-style-type: none"> <li>• 1" full port bronze ball valve</li> <li>• 1" copper street adapter with MNPT threads</li> <li>• Copper tee with 1" outlet</li> </ul>	

**"HOT TAP" Installation Kits (Dry or Wet Pipe Installation of Kit)**
**Carbon Steel Welded Pipe**

Code	Kit Description	Kit Includes	
INSL02DW-FMH	Hot tap installation kit for 3" and larger welded steel domestic water pipes (Valve, nipple & bushing comply with NSF/ANSI 61 & 372)	<ul style="list-style-type: none"> <li>• 1 1/4" full port bronze ball valve</li> <li>• 1 1/4" brass close nipple</li> <li>• 1 1/4" x 1" brass reducing bushing</li> <li>• 1 1/4" weld-on carbon steel branch outlet</li> </ul>	
INSL0006-FMH	Stainless steel hot tap installation kit for 3" and larger welded steel pipe	<ul style="list-style-type: none"> <li>• 1 1/4" full port SS ball valve</li> <li>• 1 1/4" SS close nipple</li> <li>• 1 1/4" x 1" SS reducing bushing</li> <li>• 1 1/4" weld-on carbon steel branch outlet</li> </ul>	

**Copper Tube**

INSL019A-FMH	Hot tap installation kit for Sch Std, Sch 40 or Sch 80 steel or PVC pipe (3" to 6") (Complies with NSF/ANSI 61 & 372)	<ul style="list-style-type: none"> <li>• 1 1/4" full port bronze ball valve</li> <li>• 1 1/4" brass close nipple</li> <li>• 1 1/4" x 1" brass reducing bushing</li> <li>• Ductile iron saddle with 1 1/4" outlet</li> </ul>	
INSL019B-FMH	Hot tap installation kit for Sch Std, Sch 40 or Sch 80 steel or PVC pipe (8" to 14") (Complies with NSF/ANSI 61 & 372)	<ul style="list-style-type: none"> <li>• 1 1/4" full port bronze ball valve</li> <li>• 1 1/4" brass close nipple</li> <li>• 1 1/4" x 1" brass reducing bushing</li> <li>• Ductile iron saddle with 1 1/4" outlet</li> </ul>	

**Copper Tube With Saddles**

INSL0022-FMH	Hot tap installation kit for 3" to 6" copper tube. (Complies with NSF/ANSI 61 & 372)	<ul style="list-style-type: none"> <li>• 1 1/4" full port bronze ball valve</li> <li>• 1 1/4" brass close nipple</li> <li>• 1 1/4" x 1" brass reducing bushing</li> <li>• SS saddle with 1 1/4" outlet</li> </ul>	
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**HDPE/PPR Pipe**

INSL5002-FMH	Hot tap installation kit for pipe size range 3" to 42". Customer provides their own 1 1/4" female NPT pipe outlet. (Complies with NSF/ANSI 61 & 372)	<ul style="list-style-type: none"> <li>• 1 1/4" full port bronze ball valve</li> <li>• 1 1/4" brass close nipple</li> <li>• 1 1/4" x 1" brass reducing bushing</li> </ul>	
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**Stainless Steel**

F-HTAP-INSTL31	Hot tap installation kit for 1 1/4" and larger welded stainless steel pipe	<ul style="list-style-type: none"> <li>• 1 1/4" full port 316 SS ball valve</li> <li>• 1 1/4" 316 SS close nipple</li> <li>• 1 1/4" x 1" 316 SS reducing bushing</li> <li>• 1 1/4" weld-on 316 SS branch outlet</li> </ul>	
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**Important Note:** For installation in any pipe not referenced above, it is up to the installer to provide either a 1" or 1 1/4" female NPT pipe outlet so that one of the above kits can be used, or a complete valve assembly already installed on the pipe, at least 1" full-port. The ISM installs into a 1" female NPT thread, so if the existing valve assembly is larger than 1" NPT, a reducer bushing can be installed so that the meter can be inserted.