

Vane Piston AXØ

Installation and Operation Manual

Series:

LL, LP, LH, SN, SM, SH, MN, MM ,MH, SX and MX



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U-M[®]
FLOW MONITORS

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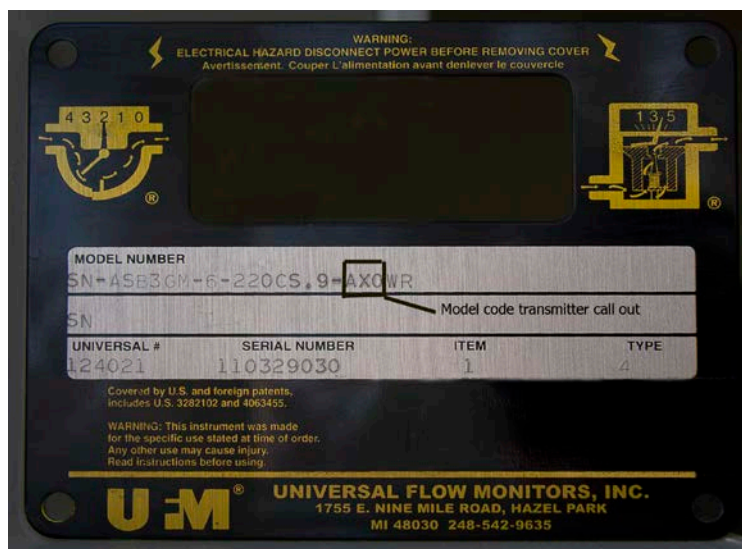
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PROPRIETARY NOTICE

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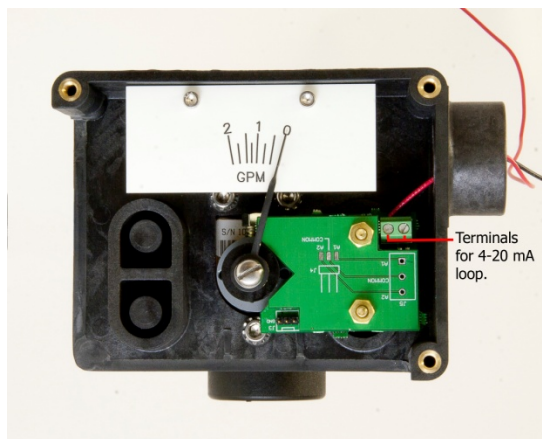
NAMEPLATES AND PRODUCT ID

This manual applies to all vane/piston meters that have the designator "AX0", "LX0" or "ZX0" in the model code. This can be seen on the name plate as shown below.



QUICK SET UP

- Piping: Screw pipe into meter with flow going into port marked "IN". Teflon tape or pipe dope discouraged.
- Wiring: Connect a twisted wire pair (not provided) to the terminals marked + and - in the control box. The wire may be up to AWG 12 size, but no smaller than AWG22.



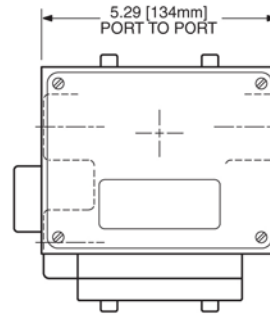
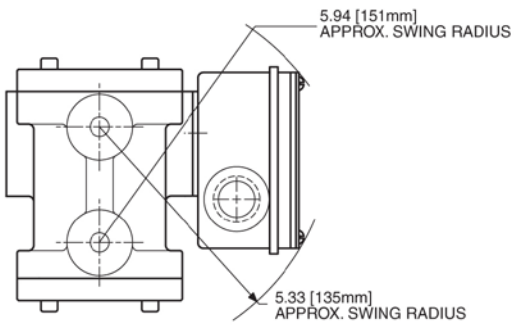
WARNING: This instrument was made for the specific use stated at the time of order. Any other use may cause injury. Read instructions before using.

Supply Connections—Wire Sizes: Wire used to connect any Switches included must be in accordance with all local and national codes. Wire size and insulation ratings should support actual loads. In all cases, wire must be, as a minimum, 20 AWG Teflon insulated rated at 600V and 200°C. It is recommended to include a disconnect switch or circuit breaker near this equipment.

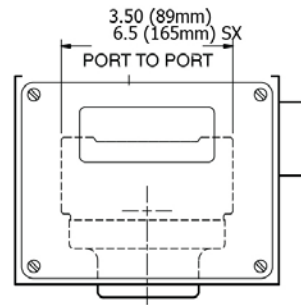
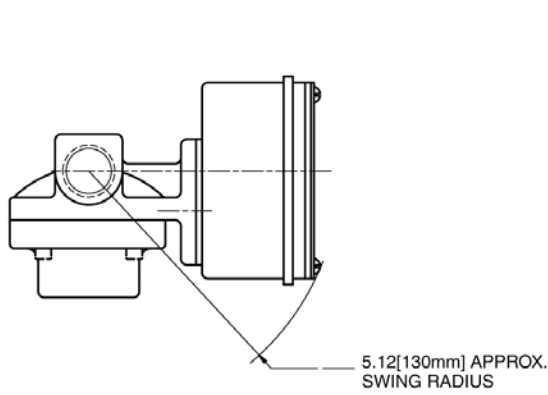
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MAXIMUM DIMENSIONS

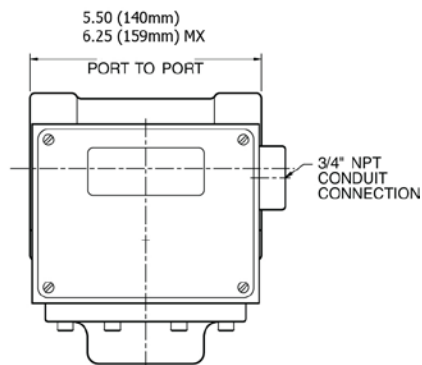
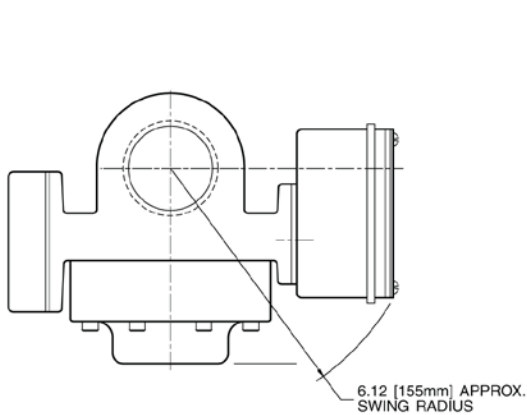
LL, LP and LH



SX, SN, SM and SH



MN, MM, MH and MX



INSTALLATION

For best results, the meters may be installed in any position as long as proper piping installation requirements are observed. This includes sufficient support of adjacent piping to minimize the system's inherent vibration. Unions of the same pipe size and full port isolation ball valves may be installed for ease of removal and servicing of equipment, if necessary.

If Teflon® tape or pipe sealant is used, the user must ensure that no loose parts become wrapped around the bluff or the flow sensor when flow starts.

GENERAL SPECIFICATIONS

Maximum Operating Pressure:	100 Psi for SX or MX with V or T bodies, 200 Psi with P bodies 150 Psi for LL series with "P" cap material 300 Psi for LL, SN and MN 500 Psi for LP, SM and MM 1500 Psi for LH and SH**I 2000 Psi for SH and MH
Maximum Operating Temperature:	200°F (93°C) standard, 300° (148°C) HT option.
Maximum Flow:	Meters may occasionally be over-ranged up to 125% of capacity without damaging the meter.
Turndown Ratio (max to min flow):	10:1 standard.
Process Connections:	Female NPT with BSPP and BSPT and Flanged optional.
Display:	Pointer and scale
Power:	0 - 30 VDC @ 21 mA (24 VDC Max. for Intrinsically Safe) Note: this meter is designed to be Intrinsically Safe if on only if used with approved barriers.
Environmental conditions:	This device has been designed for use in Installation Category I, pollution degree 4, at altitudes up to 2000 meters (6560 ft.), either indoors or outdoors as defined in CSA Standard C22.2 No.1010.1-92.
Enclosure Type Rating:	The "A" Style enclosure has successfully passed the tests for type3, 4, and 4X.
Accuracy:	5% full scale (max reading) LL, LP, LH, SN, SM , SH and SX 2% full scale MN, MM, MH and MX
Analog Output:	4-20 mA proportional to flow

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Repeatability: .25% of indicated

Pressure drop: 2-8 PSI

Response time: 250 Milliseconds

Wire Sizes: Wire must be in accordance with all local and national codes. Wire size and insulation ratings should support actual loads. In all cases, wire must be, as a minimum, 20 AWG Teflon insulated rated at 600V and 200°C. It is recommended to include a disconnect switch or circuit breaker near this equipment.

Cleaning: These meters do not require any special cleaning of the external surfaces. If cleaning is deemed necessary, strong solvents, detergents, or chemicals should not be used. A damp cloth may be used to wipe off dirt or debris.

Mounting: Flow Meters with the Style "A" enclosures may be mounted in any orientation which best suits the user's needs, especially as it pertains to readability of an engraved scale, if so provided.

Environmental Conditions: This device has been designed for use in Installation Category 2, pollution degree 4, at altitudes up to 2000 meters (6560 ft.), either indoors or outdoors as defined in CSA Standard C22.2 No. 61010. Operating temperature and pressure ratings of particular flow meters are as listed in the specifications for each specific meter