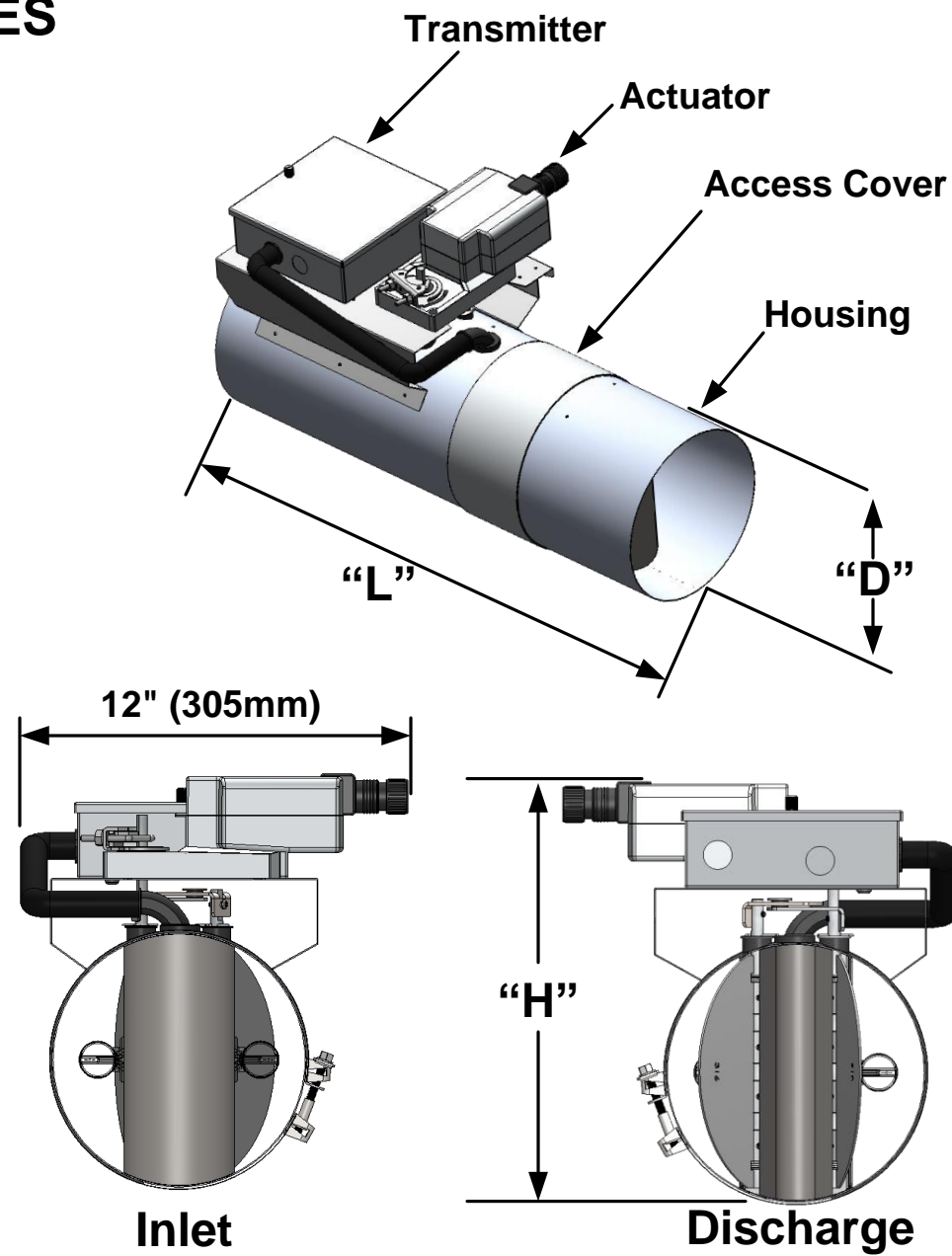


FIGURES



MODEL CODE

AVT3 1 - - - -

NOT FOR USE WITH PERCHLORIC ACID

SHAPE

1 = ROUND

VALVE HOUSING MATERIAL

- 2 = 304SS, 20 GAUGE
- 3 = 316SS, 20 GAUGE
- 4 = ALUMINUM, 16 GAUGE
- 6 = HIGH TEMP 304SS, 20 GAUGE

ACTUATOR

- 2 = FAIL LAST POSITION, 0-10V
- 3 = FAIL LAST POSITION, 2-10V
- 4 = FAIL OPEN/CLOSED, 0-10V
- 5 = FAIL OPEN/CLOSED, 2-10V

OPTIONS

- BLANK = NO OPTIONS
- A = ACCUNET
- B = BACnet MS/TP
- F = FLANGES (REF NOTE 3)
- I = INSULATION (REF NOTE 4)
- S = TIGHT SHUT-OFF (REF NOTE 1)

SIZE

- 06 = 06" DIAMETER
- 08 = 08" DIAMETER
- 10 = 10" DIAMETER
- 12 = 12" DIAMETER
- 14 = 14" DIAMETER

NOTES:

- 1) Blade seals are standard on all 6" valves, therefore -S option is not available for valve size -06.
- 2) Factory Defaults: Transmitter Output: 0-10v unless otherwise specified. Actuator Options 4&5 set to Fail Open.
- 3) Standard valve flanges do NOT include predrilled holes. Reference Accutrol "Flange Detail Submittal Drawing" for details.
- 4) Insulation is not available on High Temperature AccuValve.

MATERIALS

MODEL CODE MATERIAL DESIGNATOR	MATERIALS EXPOSED TO AIRSTREAM			
	(2) 304SS	(3) 316SS	(4) ALUMINUM	(6) HIGH TEMP 304SS
HOUSING	304 STAINLESS STEEL	316 STAINLESS STEEL	AL. ALLOY 5052-H32	304 STAINLESS STEEL
COMPRESSION SECTION	304 STAINLESS STEEL	316 STAINLESS STEEL	AL. ALLOY 5052-H32	304 STAINLESS STEEL
STATIC REGAIN SECTION	304 STAINLESS STEEL	316 STAINLESS STEEL	AL. ALLOY 5052-H32	304 STAINLESS STEEL
END PLATE	304 STAINLESS STEEL	316 STAINLESS STEEL	GALVANIZED STEEL	304 STAINLESS STEEL
BLADES	304 STAINLESS STEEL	316 STAINLESS STEEL	GALVANIZED STEEL	304 STAINLESS STEEL
SHAFTS	316 STAINLESS STEEL	316 STAINLESS STEEL	316 STAINLESS STEEL	316 STAINLESS STEEL
SHAFT BEARINGS	TEFLON®	TEFLON®	TEFLON®	TEFLON®
VORTEX SENSORS	POLYCARBONATE, UL94-VO	POLYCARBONATE WITH PARYLENE COATING	POLYCARBONATE, UL94-VO	303 STAINLESS STEEL
SENSOR TUBING	POLYURETHANE	POLYURETHANE	POLYURETHANE	VITON RUBBER
COMPRESSION SEALS	VITON RUBBER	VITON RUBBER	EPDM RUBBER	VITON RUBBER
MACHINE SCREWS	304 STAINLESS STEEL	316 STAINLESS STEEL	304 STAINLESS STEEL	304 STAINLESS STEEL
RIVETS	304 STAINLESS STEEL	316 STAINLESS STEEL	304 STAINLESS STEEL	304 STAINLESS STEEL
BLADE SEALS (OPTIONAL)	VITON RUBBER	VITON RUBBER	EPDM RUBBER	VITON RUBBER

OPERATING RANGE

Valve Model	Min. Flow Measured			Full Scale Range		
	CFM	L/S	CMH	CFM	L/S	CMH
AVT3100-06	30	14	51	315	149	535
AVT3100-08	80	38	136	800	378	1359
AVT3100-10	120	57	204	1300	613	2209
AVT3100-12	180	85	306	1790	845	3041
AVT3100-14	250	118	425	2750	1298	4672

SIZE & WEIGHT

Valve Model	Valve Dimensions						Weight			
	"D"		"L"		"H"		Stainless Steel		Aluminum	
	in.	mm	in.	mm	in.	mm	Lbs.	kg	Lbs.	kg
AVT3100-06	5.88	149	22	559	10	254	13	5.9	9	4.1
AVT3100-08	7.88	200	24	610	13	381	16	7.3	12	5.4
AVT3100-10	9.88	250	24	610	15	432	20	9.1	14	6.4
AVT3100-12	11.88	300	27	686	17	483	26	11.8	16	7.3
AVT3100-14	13.88	350	30	762	19	533	30	13.6	20	9.1



Accutrol Representative:

SUBMITTAL DRAWING

Round AccuValve® Model AVT3100

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DWG. NO:	AVT3100 SUBMITTAL DWG		
REVISION:	B	ECN:	2339
REV. DATE:	2-6-18	SHEET:	1 OF 3

INSTALLATION INSTRUCTIONS

⚠ WARNING: Wear eye protection, protective gloves and clothing suitable for working with sheet metal which may have sharp edges.

1. Read all instructions prior to beginning installation.

NOTE: For detailed installation instructions, refer to the AVT3000 Installation & Operation Manual.

2. Verify the tag number located on the valve label matches the HVAC schedule.

3. Locate the duct section which the valve is servicing and select a suitable mounting location for the valve.

NOTE: The AccuValve® does not require straight inlet duct runs to operate properly, however it's always best to locate the valve away from transitions and bends to minimize impact on system static pressure. Also be sure to select a location that will provide a minimum clearance of 14 inches (356 mm) unobstructed access to the transmitter, actuator and valve access cover.

4. Provide an opening in the selected duct section sized appropriately for the valve being installed.

NOTE: A slip-fit valve will require an opening approximately 2" (50.8 mm) smaller than the valve length, whereas a flanged valve will require an opening the same length as the valve. Reference Sheet 1 for valve dimensions.

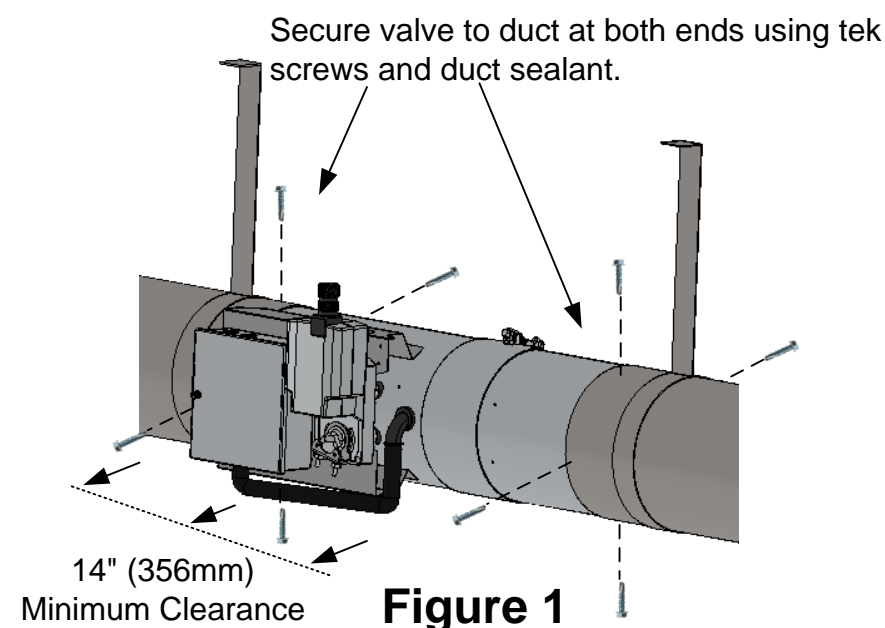
5. Install duct hangers within 12 inches (305 mm) from each end of the valve. Reference Sheet 1 for valve weights.

⚠ WARNING: Use duct hangers and hardware designed to support the total load of valve and associated duct sections. Failure to do so may result in serious personal injury or death.

6. Install the valve into the duct in accordance with the Airflow Direction Label located on the valve. Position the valve for easy access to the transmitter side then secure to duct per the appropriate Figure below.

NOTE: Screws, nuts, fasteners, duct sealant, hangers, companion flanges and gaskets are not provided by Accutrol LLC.

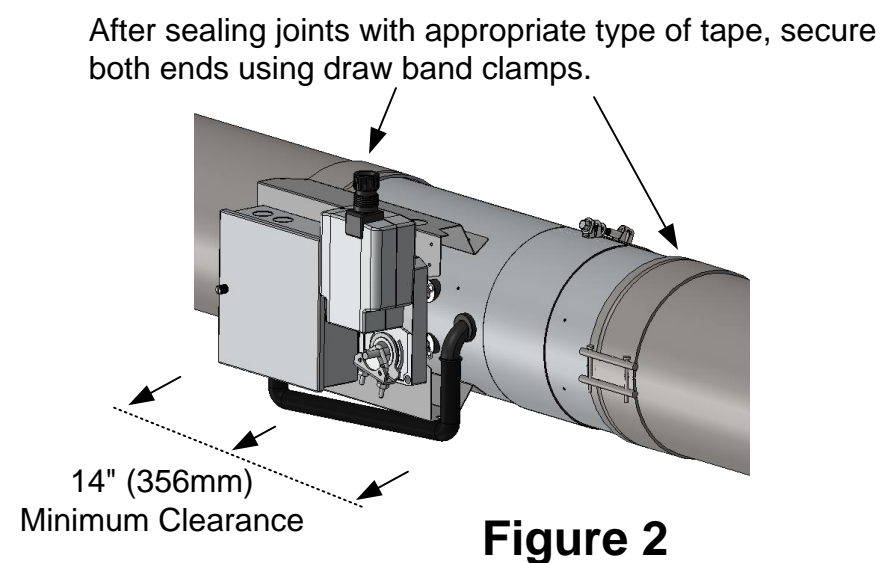
Standard Slip-fit Valve Secured Using Tek Screws



Standard Slip-fit Valve Secured Using Draw Bands

(Draw Bands are Sold Separately)

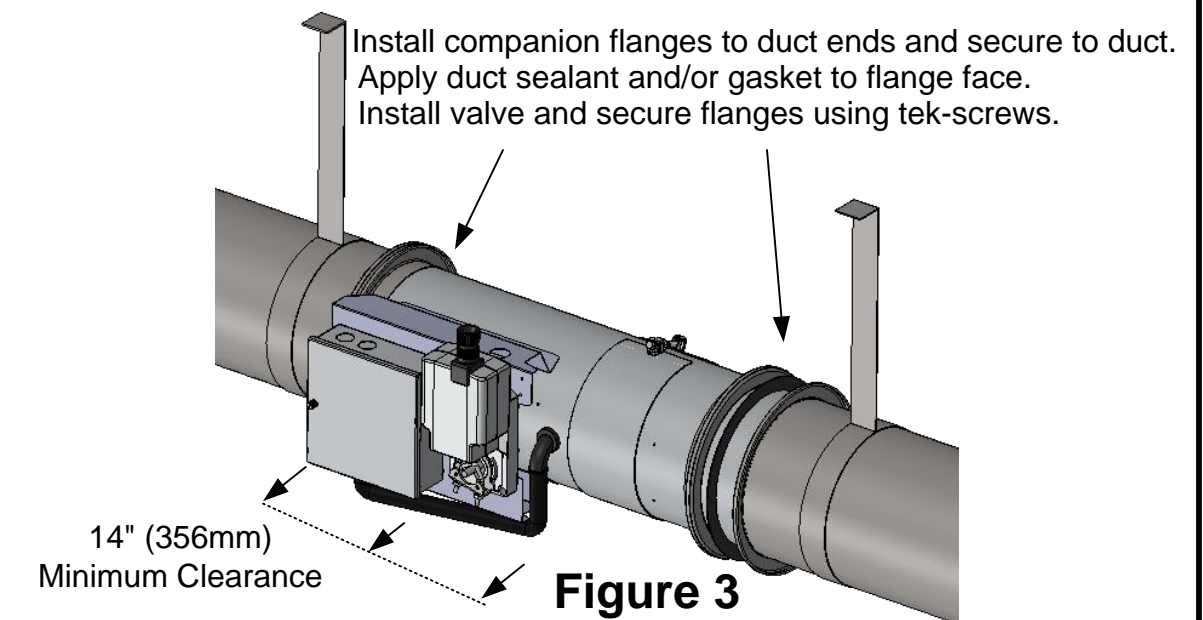
Reference Accutrol Draw Band Clamp Submittal Drawing for Details



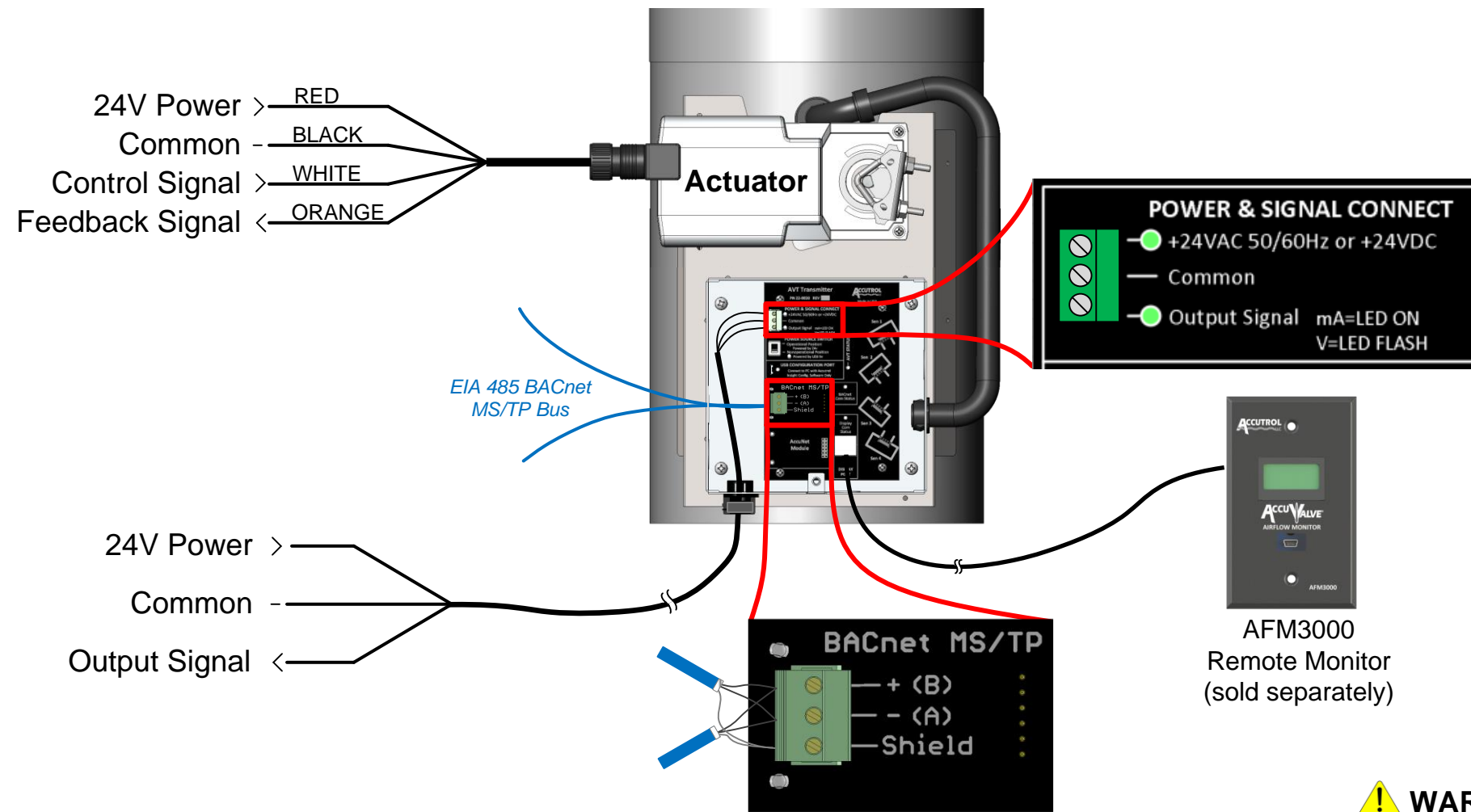
Flanged Valve "Option F" Secured Using Companion Flanges

(Companion Flanges are Sold Separately)

Reference Accutrol Flange Option Submittal Drawing for Details



WIRING INSTRUCTIONS



Transmitter and Actuator

Connect the power and signal wires to the Actuator and Transmitter per the diagram. For more details on the actuator, reference the actuator submittal drawing.

CAUTION: Maintain polarity if the power source is used to power multiple devices otherwise equipment may be damaged.

CAUTION: Do not use the transmitter enclosure as a junction box. The only wires entering the transmitter enclosure shall be wires connected to the transmitter otherwise equipment may be damaged.

Optional BACnet MS/TP Module

Connect the 2-wire EIA 485 BACnet MS/TP bus to the AVT3000 transmitter per the diagram. Network bias and EOL termination are not provided by the AVT3000.

Remote Monitor AFM3000 (Sold Separately)

Plug one end of the factory cable into the back of the remote monitor and plug the other end into the AVT3000 Display Port.

WARNING: During installation, testing, servicing and troubleshooting of this product, it may be necessary to work with live electrical components. This work shall be performed by a licensed electrician or qualified individual who has been properly trained in handling live electrical equipment. Failure to follow all electrical safety precautions when exposed to live electrical components may result in serious injury or death.

TRANSMITTER ELECTRICAL SPECIFICATIONS

Power Supply: 24 VAC +/- 20% 50/60 Hz, 4 VA max (8.5 VA max with remote monitor)
24 VDC +/- 10% 1.5 W max (3.5 W max with remote display)

Output Signal: 0-20mA, 4-20mA, 0-10V, 2-10V, 0-5V, or 1-5V (Software Config.)
12-bit Resolution
Capable of driving 1K-ohm load

Configuration Port: USB 2.0, Isolated, Micro B Connector

Power Source Switch: Selects alternate power source for configuration when main power is not available by drawing 5V from PC connected to USB config. port

BACnet MS/TP (Optional): EIA 485 2-wire BACnet MS/TP, Galvanically Isolated
Data Rates 9600, 19200, 38400, 57600, 76800 and 115200
1/8 Unit Load Receiver Input Impedance

Remote Monitor (Sold Separately): LCD, 2 lines x 8 characters with white LED backlight
Includes USB Configuration Port and Factory Cable

Terminal Plugs: 3-position, vertical pluggable, screw on top, wire size 12-30 AWG

ACTUATOR ELECTRICAL SPECIFICATIONS

For actuator specifications, reference the Actuator Drawing per table below.

AVT3100 Model	Actuator Type	Actuator Drawing #
AVT31x2-xx	0-10V, Fail Last Position	20-0008
AVT31x3-xx	2-10V, Fail Last Position	20-0009
AVT31x4-xx	0-10V, Fail Open or Closed	20-0010
AVT31x5-xx	2-10V, Fail Open or Closed	20-0011