

## AVID EAZICAL II ELECTRO-PNEUMATIC POSITIONERS

CERTIFIED TO NEC, CEC, ATEX, IECEX STANDARDS TO MEET INTRINSICALLY SAFE AND NON-INCENDIVE OPTIONS

The EAZICAL II is a next generation electro-pneumatic positioner that delivers improved levels of reliability and modulating position control via simple auto calibration.



### GENERAL APPLICATION

The EAZICAL II represents the next phase in AVID's mission to present a more effective and economical electro-pneumatic positioner solution. Designed to complete calibration in just minutes and independently adjust the positioner, the EAZICAL II performs position measuring by an off-set, Hall Effect Sensor.

### TECHNICAL SPECIFICATION

Input current	4 – 20mA (analogue)
Voltage drop	9 volts
Supply pressure	15 to 45 psi (low), 40 to 120 psi (high)
Resolution	0.5% of span
Hysteresis	0.4% of span
Repeatability	0.4% of span
Thermal Coefficient	3% / 100 °C
Output flow rates	16.2 scfm (standard) & 40 scfm (high) @ 90 psig supply
Air consumption	0.08 scfm @ 90 psi (high) 0.03 scfm @ 20 psi (low)
Gain	Adjustable
Air connection ports	1/4" BSP / NPT (standard) 3/8" BSP / NPT (high) BSP / NPT

### FEATURES

- Simple auto calibration is completed in minutes and results are displayed on LCD display, facilitating setup and commissioning.
- Limit switch options allow for more flexibility in applications.
- Includes as standard a 4 – 20mA feedback position transmitter for verification that the valve package is tracking correctly.
- Non-contact Hall Effect sensor eliminates geared mechanical potentiometer for extended product life, reduced maintenance and improved performance under vibration.
- Every unit suitable for single acting and double acting.
- Globally certified

# AVID EASICAL II ELECTRO-PNEUMATIC POSITIONERS

CERTIFIED TO NEC, CEC, ATEX, IECEx STANDARDS TO MEET INTRINSICALLY SAFE AND NON-INCENDIVE OPTIONS

## TECHNICAL DATA

### Agency approvals

Intrinsically Safe

ATEX and IECEx *(Engineered Resin or Stainless Steel enclosure)*  
 II 1G  
 Ex ia IIC T4 Ga  
 Ta = -40°C to +85°C

*(Aluminum enclosure)*

II 1G  
 II 2D  
 Ex ia IIC T4 Ga  
 Ex tb IIIC T87 Db  
 Ta = -40°C to +85°C

North America

*(Stainless Steel or Resin)*

Class I, Div. 1, Groups A, B, C & D, T4;  
 Class I, Zone 0, AEx/Ex ia IIC T4 Ga;  
 Type 4X, IP 65  
 Class I, Div. 2, Groups A, B, C & D; T4;  
 Type 4X, IP 65  
 Ta = -40°C to +85°C

*(Aluminum Only)*

Class I, Div. 1, Groups A, B, C & D, T4;  
 Class II, Div. 1, Groups E, F & G;  
 Class III;  
 Class I, Zone 0, AEx/Ex ia IIC T4 Ga;  
 Class II, Zone 21, AEx/Ex tb IIIC T87 Db;  
 Type 4X, IP 65  
 Ta = -40°C to +85°C

Non-Incendive

Class I, Div. 2, Groups A, B, C & D, T4;  
 Class II, Div. 2, Groups F & G;  
 Class III;  
 Type 4X, IP 65  
 Ta = -40°C to +85°C

Note: The switch options are approved for hazardous locations. (Mech. Switch option not for use in Division 2 North America).

## MATERIAL OF CONSTRUCTION

Housing / Cover	Engineered resin, aluminum & CF8M (316) stainless steel
Manifold	Anodized aluminum or stainless steel
Conduit	M20, M25, 3/4" NPT
Shaft	Stainless steel
Hardware	Stainless steel

## SWITCH OPTIONS



### T-Switch hermetically sealed proximity switch

Hermetically-sealed proximity switches with rhodium contacts for use with low power I/O's to provide longer contact life.



### SPDT mechanical switch V3

A V3 (single pole double throw) mechanical switch (Form C).



### P+F NJ2-V3-N inductive proximity sensor

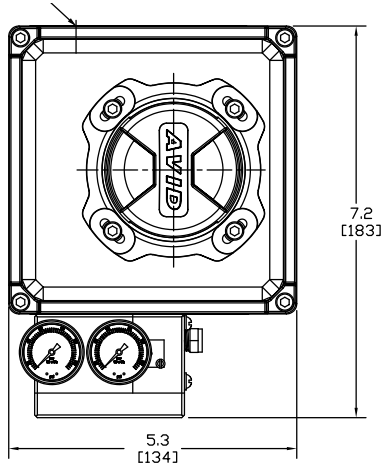
*Intrinsically Safe*

A solid state inductive proximity sensor which is available in NAMUR output. It is ideal for use in devices within potentially explosive atmospheres.

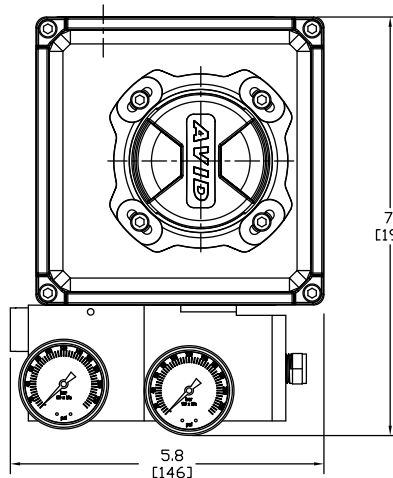
# AVID EASICAL II ELECTRO-PNEUMATIC POSITIONERS

CERTIFIED TO NEC, CEC, ATEX, IECEx STANDARDS TO MEET INTRINSICALLY SAFE AND NON-INCENDIVE OPTIONS

## GA DRAWING



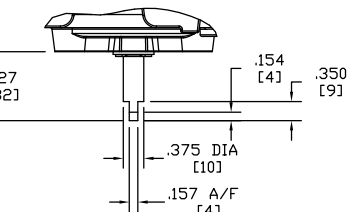
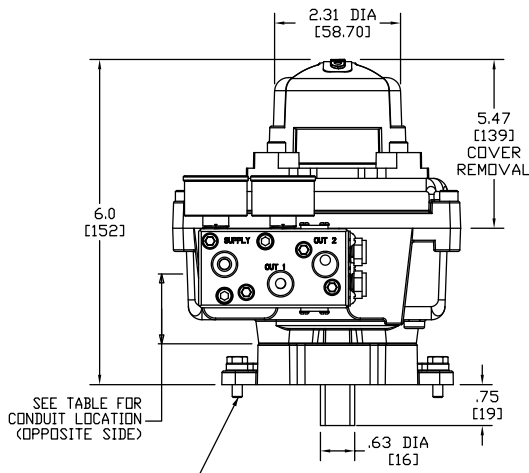
STD FLOW MANIFOLD  
(1/4" NPT OR BSP PORTS)



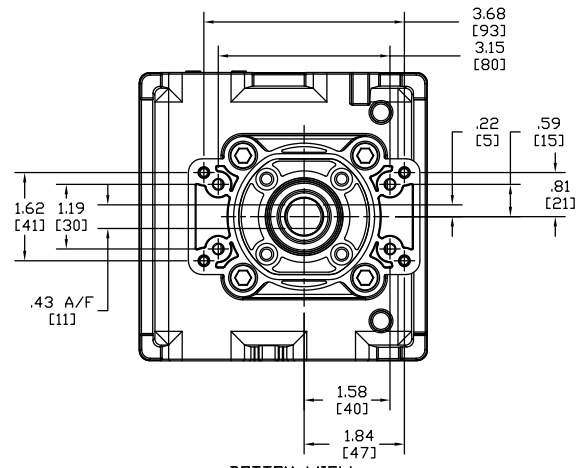
HI FLOW MANIFOLD  
(3/8" NPT OR BSP PORTS)

## SIMPLE CALIBRATION

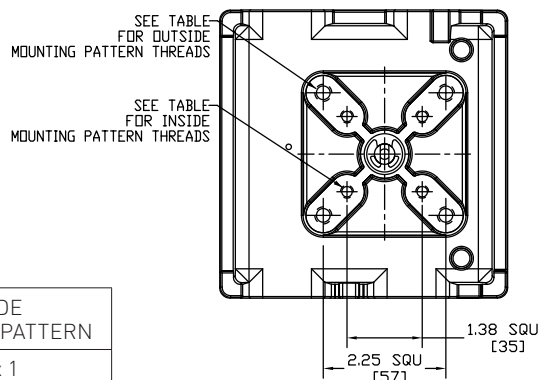
- Easy to use auto-calibration via button assumes Low is 4mA and High is 20mA
- Manual Low/High Calibration - with 'value' options for closed and open positions
- Full Manual Calibration accommodating:
  - o Forward Gain/Reverse Gain
  - o Drop Off
  - o Zero Adjust
  - o Span Adjust
  - o Forward or Reverse Acting
  - o Long Cal - For larger actuators to avoid timeout of calibration
  - o Split Range Applications



OPTIONAL NAMUR OUTPUT



BOTTOM VIEW  
(VIEW SHOWN W/OUT MANIFOLD)



BOTTOM VIEW  
(VIEW SHOWN W/OUT MANIFOLD AND MOUNTING BRACKET)

## MOUNTING OPTIONS

CONDUIT ENTRY	CONDUIT LOCATION	OUTSIDE MOUNTING PATTERN	INSIDE MOUNTING PATTERN
3/4"-14 NPT	1.39	5/16"-18	M6 x 1
M25 x 1.5	1.39	M8 x 1.25	M6 x 1
M20 x 1.5	1.39	M8 x 1.25	M6 x 1

# AVID EASICAL II ELECTRO-PNEUMATIC POSITIONERS

## POSITIONER SELECTION GUIDE

<b>Base Model</b>														
E	AVID EaziCal II Positioner													
<b>Housing material</b>														
A	Aluminium													
S	Stainless Steel CF8M (316)													
Z	Engineered Resin													
<b>Application</b>														
C	Re-Transmission													
R	High Flow and Re-Transmission													
<b>Conduit Entry</b>														
2	1 × M20													
5	1 × 3/4" NPT													
8	1 × M25													
B	2 × M20 (ATEX & IECEx ONLY)													
<b>Switches / sensors</b>														
000	No Switches Fitted													
201	2 × Mechanical SPTD			(Non-Hazardous ONLY – No Approval)										
202	2 × T - Switches													
203	2 × P&F NJ2-V3-N													
210	2 × IFM IS5026			(Non-Hazardous ONLY – No Approval)										
211	2 × IFM IS5001			(Non-Hazardous ONLY – No Approval)										
216	2 × Gold Plate Mechanical SPTD													
257	2 × P&F NBB2-V3-E2-3G-3D			(Non-Hazardous ONLY – No Approval)										
<b>Terminal Strip</b>														
D	10 Pt Terminal Strip													
<b>Mounting</b>														
D	Direct Mounting Metric Fixings													
I	Direct Mounting Imperial Fixings													
0	Metric													
B	Imperial													
<b>Place holder</b>														
0	Not applicable													
<b>Manifold</b>														
B	BSP Aluminium													
D	BSP Stainless Steel 316													
N	NPT Aluminium													
P	NPT Stainless Steel 316													
<b>Special Feature</b>														
00	Standard													
AA	Grilamid outer Beacon													
BU	NPT Filter Regulator													
<b>Approvals</b>														
0	(Non-Hazardous ONLY – No Approval)													
A	ATEX / IECEx													
U	Universal (ATEX / IECEx / NEC)													
<b>Revision</b>														
R*	Internal Revision Number*													
E	Z	-	C	2	000	D	D	0	B	00	-	A	R3 = Model Number EZ-C2000DD0B00-UR3	

**WESTLOCK CONTROLS**  
 280 N. Midland Avenue,  
 Ste 258  
 Saddle Brook, NJ 07663  
 United States

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