

Building connections that last™



Series EC

Compact Electric Actuator Datasheet



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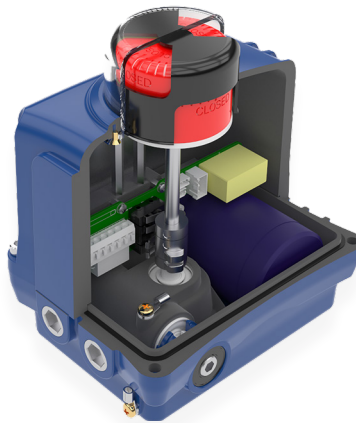
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Note: (S) Cover Option shown.

1. Standard Specifications

Enclosure	IP67, Dust-tight, weather-tight, Type 4/4x (L) tall cover
Ambient Temperature	-20°C to +70°C (-4°F to 158°F)
Power Supply	120vac 60Hz 1-Phase (220v, 24v and 12v option)
Limit Switches	Motor: Open / Close Auxiliary Dry Contact: Open / Close
Stall Protection	Built-in Thermal Protection Cut-off at 120°C (248°F)
Travel Angle	90 ± 5
Indicator	Dome type, illuminated at full Open and full Close position. (L and S cover)
Manual Operation	Allen wrench included (6mm Hexagon)
Worm Gear	Permanently lubricated and self locking
Space Heater	5-Watt Heater (120v, 220v, 24v)
Conduit Entries	Two ½" NPT
Lubrication	Grease (Shell Gadus S2-V220-2)
Materials	Aluminum Alloy, Aluminum Bronze, Steel
Surface Treatment	Anodizing
External Coating	Dry Powder Polyester (TGIC-Free)
Anti-Vibration	X,Y,Z 10Hz-57Hz 0.15mm / 30-min



2. Options

Enclosure Option	(S) IP67, Dust-tight, weather-tight, Type 4, 4x (short cover / dome indicator) (FL) IP67, Dust-tight, weather-tight, Type 4, 4x (tall cover / flat indicator) (FS) IP67, Dust-tight, weather-tight, Type 4, 4x (short cover / flat indicator) (X) IP67, Dust-tight, weather-tight, Type 4, 4x, 7, 9 (ATEX II 2 G Ex d IIB T4)
Voltage Options	220Vac-1PH, 24Vac-1PH, 24Vdc, 24ac/dc or 12Vdc
Control Options	AC Motor Interface with speed control (on / off service) High Resolution Controller, analog (Vdc or mA) or digital signal (modulating service) Log Rate Controller, analog (Vdc or mA) (modulating service) 135-Ohm Slide Wire MODBUS Communication



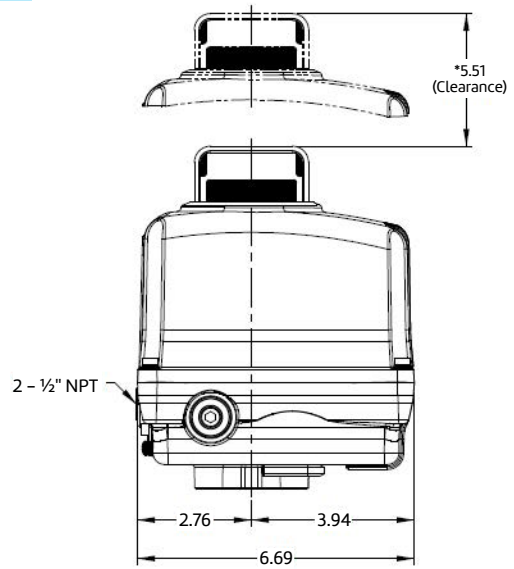
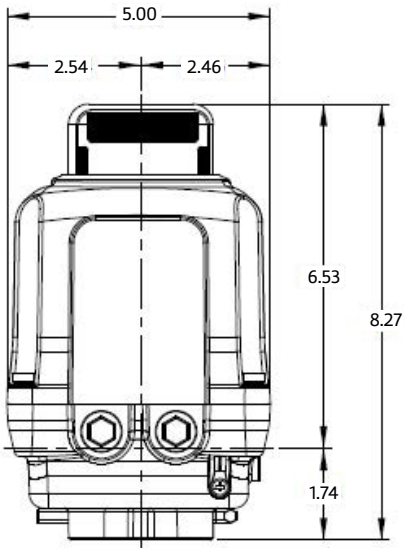
Note: (FS) Cover option shown.

3. Performance

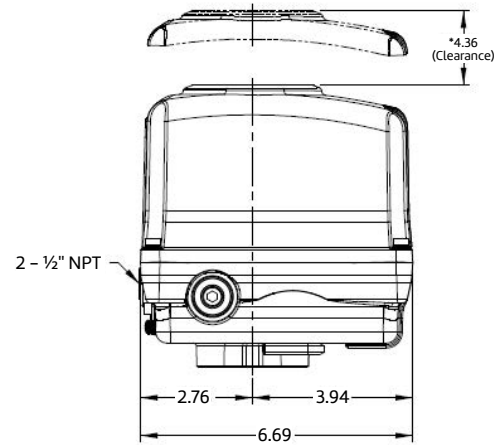
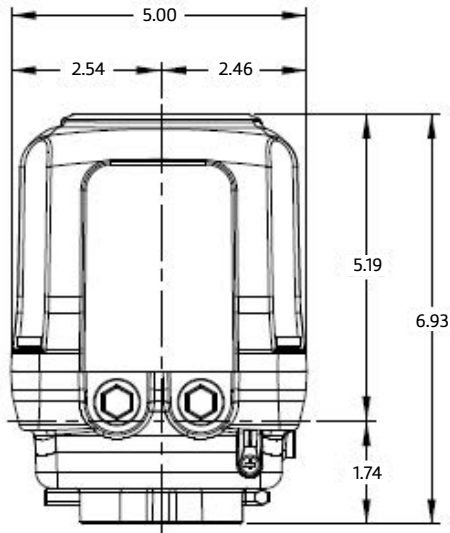
Model	EC005 (L, S, X)	EC009 (L, S, X)
Enclosure	IP67 (L, S) / IP68 (X)	IP67 (L,S) / IP68 (X)
Torque Output	430-inch pounds	780-inch pounds
Operating Time		
AC 60Hz	14-seconds	26-seconds
AC 50Hz	17-seconds	32-seconds
12Vdc	11-seconds	25-seconds
24Vdc	10-seconds	22-seconds
Motor Voltage / Watts	Rated / Locked Rotor AMP	Rated / Locked Rotor AMP
120Vac 60Hz	0.35A / 0.65A	0.35A / 0.65A
220Vac 50Hz	0.23A / 0.35A	0.25A / 0.40A
12Vdc	3.2A / 13.9A	3.4A / 13.9A
24V	1.8A / 7.9A	2.1A / 7.9A
Duty Cycle	S2-15min / S4-50%	S2-15min / S4-30%
Mounting Base	F03, F05, F07	F03, F05, F07
Bore	14mm-Star	14mm-Star
Handle Turns	6-Turns	4.5-Turns
Type Weight		
Tall Cover (L,FL)	7.1 lbs	7.1 lbs
Short Cover (S,FS)	6.2 lbs	6.2 lbs
Explosion Proof (X)	11.0 lbs	11.0 lbs

4. Dimensions

L-Model Shown

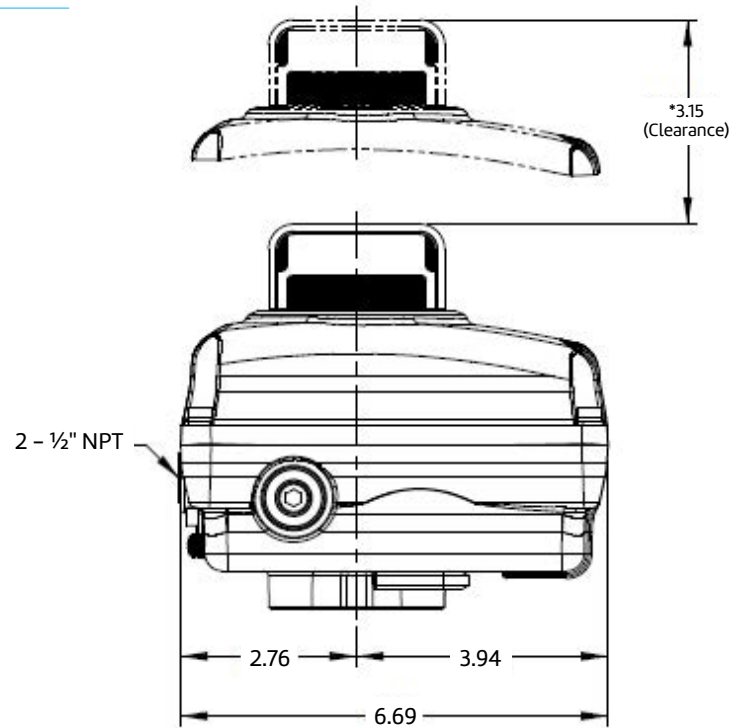
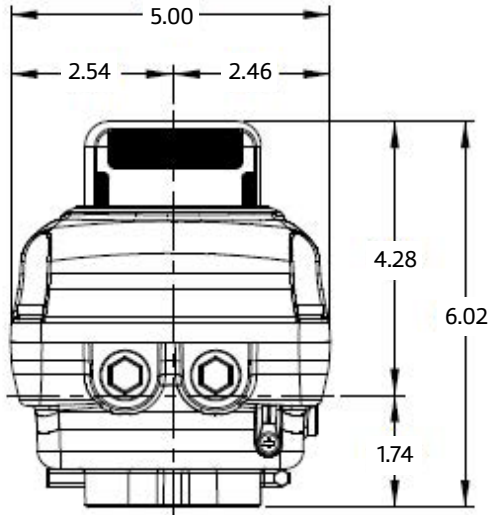


FL-Model Shown

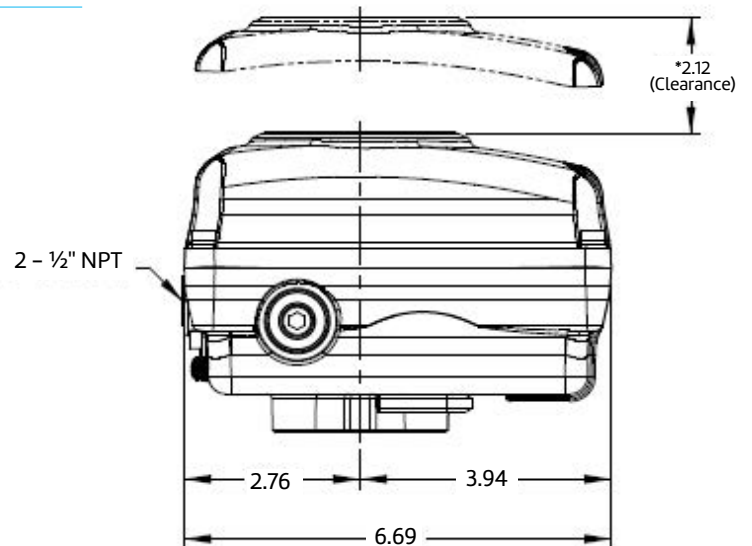
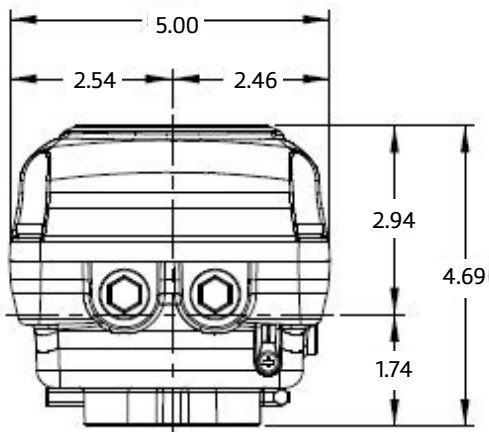


4. Dimensions

S-Model Shown

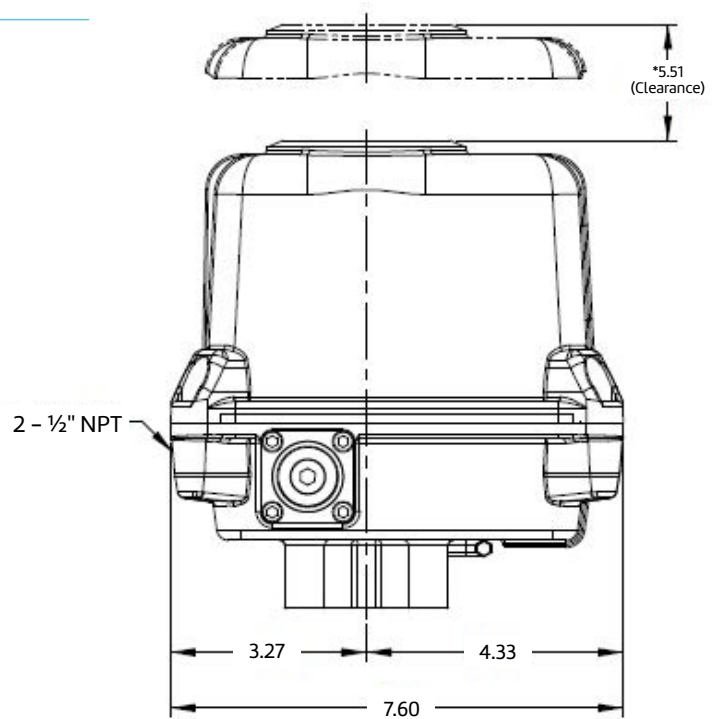
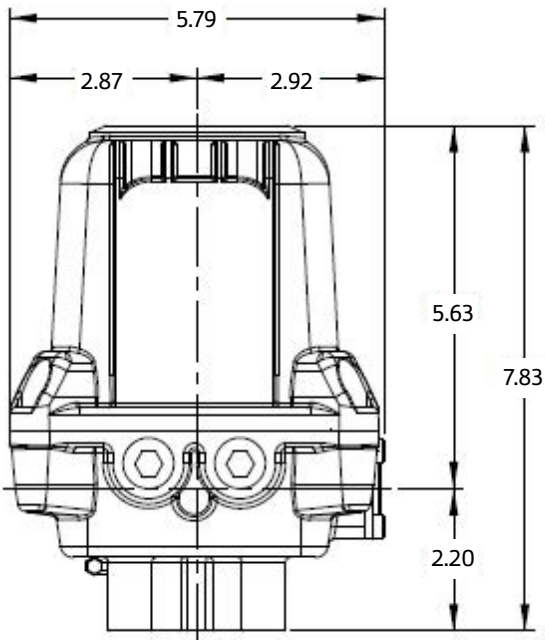


FS-Model Shown



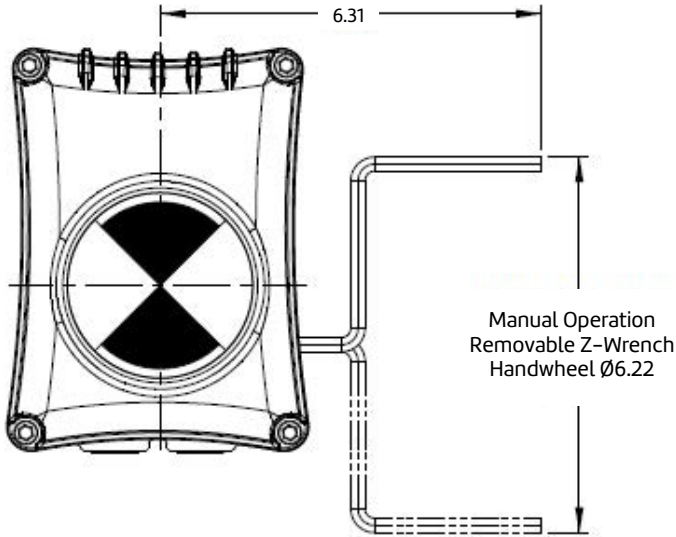
4. Dimensions

X-Model Shown

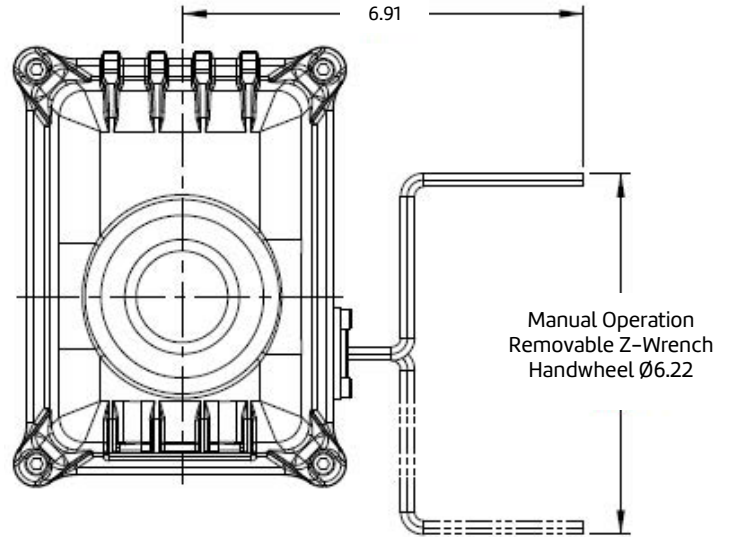


4. Dimensions

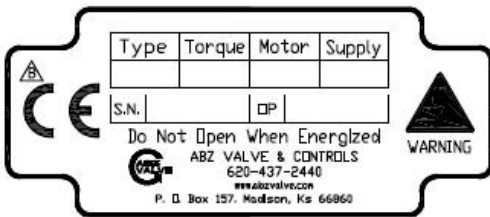
Note: Top View L, S, FL, FS Shown



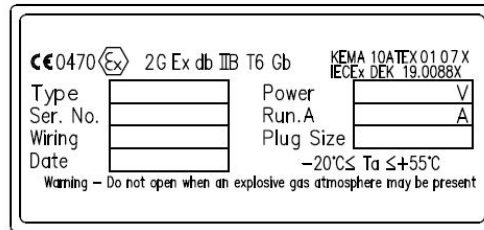
Note: Top View X Shown



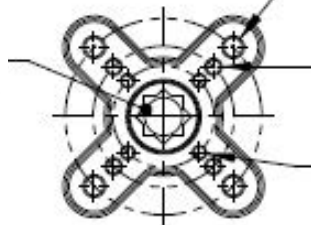
Note: Standard Label information



Note: Explosion Proof Label Information



Star Drive
.55 x .98 Deep



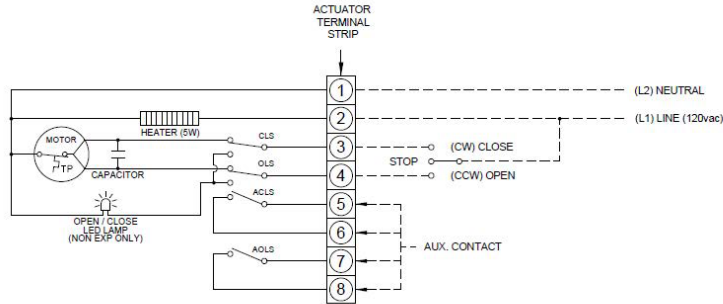
ISO 5211 F07/Ø2.67 Bolt Circle
(4) M8-1.25 x 13mm deep

ISO 5211 F05/Ø1.97 Bolt Circle
(4) M6-1.00 x 11mm deep

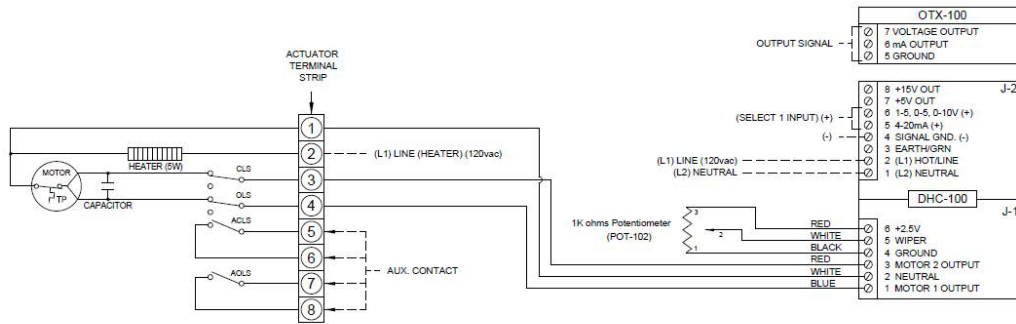
ISO 5211 F03/Ø1.42 Bolt Circle
(4) M5-0.80 x 9mm deep

Note: Bottom View All Models

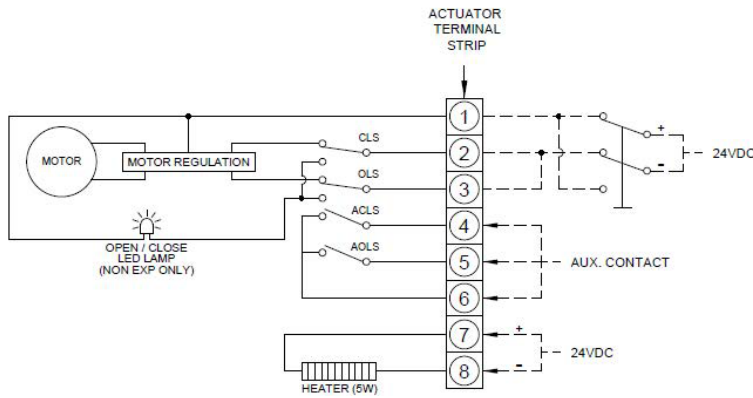
5. Wiring



120vac On / Off Service



120vac Modulating Service with Transmitter



24vdc On / Off Service

Compact Electric Actuator Series EC



Example: EC-005L-A1A

A size 005 actuator (434 lbf-in), with IP67 enclosure, 120 Vac / 1 PH power supply, for standard On-Off service, with two limit switches.

How to Order

E	-	C005	L	-	A	1A	-	A1	6		
		1 Size	2 Type			3 Voltage			4 Service	5 ALS	6 Feedback
1 Model / Size											
Code		lbf-in									
C005		434									
C009		780									
2 Type											
Code											
L		IP67, Dust-tight, weather-tight, Type 4 / 4x (tall cover-standard)									
S		IP67, Dust-tight, weather-tight, Type 4 / 4x (short cover)									
FL		IP67, Dust-tight, weather-tight, Type 4 / 4x (tall-flat indicator)									
FS		IP67, Dust-tight, weather-tight, Type 4 / 4x (short-flat indicator)									
X		IP67, Dust-tight, weather-tight, Type 4 / 4x, 7,9 (explosion proof)									
3 Voltage											
Code											
A		120 Vac / 1PH									
B		220 Vac / 1PH									
C		24 Vac / 1PH									
D		24 Vdc									
G		24 AC / DC (On / Off)									
J		12 Vdc									
4 Service & Control Type (Card)											
Open / Close (On-Off):											
Standard											
1A		On / Off, 2-Position Control (All Voltages)									
With Motor Interface											
1B		AC Motor Interface with speed control [120 Vac]									
1C		AC Motor Interface with speed control [220 Vac]									
1D		AC Motor Interface with speed control [24 Vac]									
Modulating:											
High-Resolution Controller											
2A		High-Resolution Controller, analog (Vdc or mA) or digital signal [120Vac]									
2B		High-Resolution Controller, analog (Vdc or mA) or digital signal [220Vac]									
2C		High-Resolution Controller, analog (Vdc or mA) or digital signal [24Vac]									
2E		High-Resolution Controller, analog (Vdc or mA) or digital signal [24Vdc]									
3A		High-Resolution Controller, analog 0-135 Ohm slide wire signal [120 Vac]									
3B		High-Resolution Controller, analog 0-135 Ohm slide wire signal [220 Vac]									
3C		High-Resolution Controller, analog 0-135 Ohm slide wire signal [24 Vac]									
3E		High-Resolution Controller, analog 0-135 Ohm slide wire signal [24 Vdc]									
Log Rate Controller											
2F		Log Rate Controller, analog (Vdc or mA) signal [120Vac]									
2G		Log Rate Controller, analog (Vdc or mA) signal [220Vac]									
Motor Controller											
2H		AC Motor Controller, analog (Vdc or mA) signal [120Vac]									
2J		AC Motor Controller, analog (Vdc or mA) signal [220Vac]									
2K		DC Motor Controller, analog 4-20mA signal [24Vdc]									
5 Auxiliary Limit Switches (ALS)											
Code		Standard: 2 switches (one set)									
A1		1-Set Auxiliary Switches (ALS)									
6 Position Feedback											
Code											
<blank>		None. No Position Feedback.									
Potentiometer - Position Feedback Available with Type "L", "FL", "X" only											
B		Potentiometer Feedback, 1000 Ohm (On / Off only)									
Transmitter - Position Feedback Available with Type "L", "FL", "X" only											
All Configurations EXCEPT High-Resolution Controllers											
C		Position Feedback Transmitter, 4-20mA									
E		Position Feedback Transmitter, 2-wire Loop Powered (On / Off only)									
All Configurations EXCEPT High-Res Controllers (2A to 2E), and Analog DC Motor Controllers (2K)											
D		Position Feedback Transmitter, 0-5 or 0-10 Vdc									
Modulating, High-Resolution Controller Feedback											
G		Position Feedback Transmitter, 4-20 mA / 0-10 Vdc [for Vac High-Res Controllers only]									
H		Position Feedback Transmitter, 4-20mA (Loop Powered) [for all High-Res Controllers]									
J		Position Feedback Transmitter with Relays, 4-20 mA / 0-10 Vdc [for Vac High-Res Controllers only]									
K		Position Feedback Transmitter with Relays, 4-20mA (Loop Powered) [for all High-Res Controllers]									
Modbus											
Modulating, High-Resolution Controller Communication											
L		Modbus Option Module [all voltages]									



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