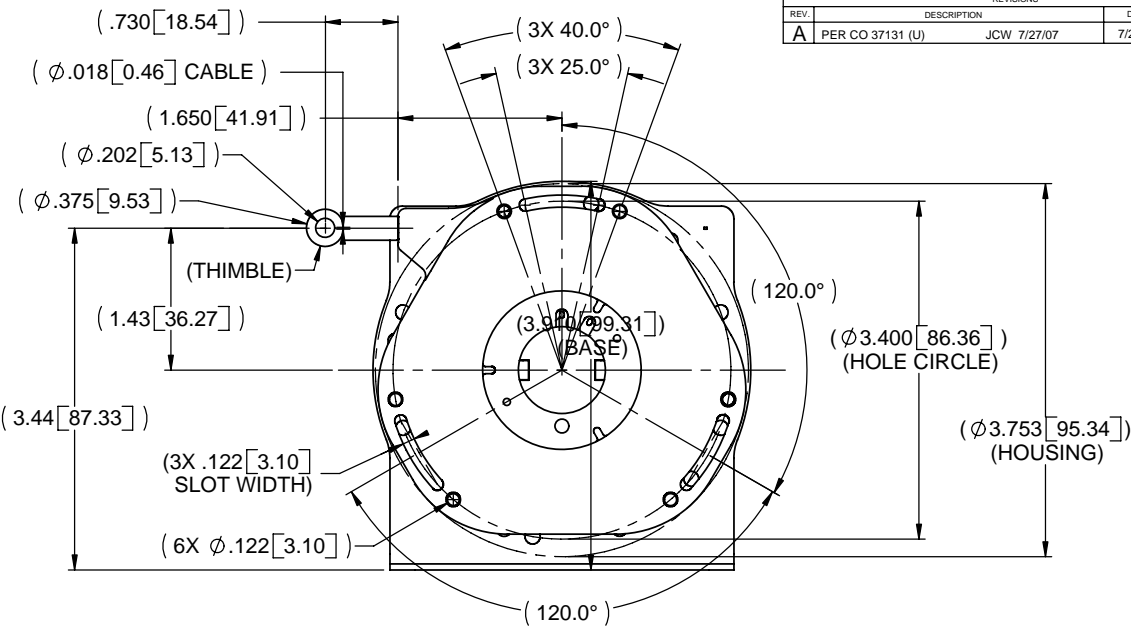
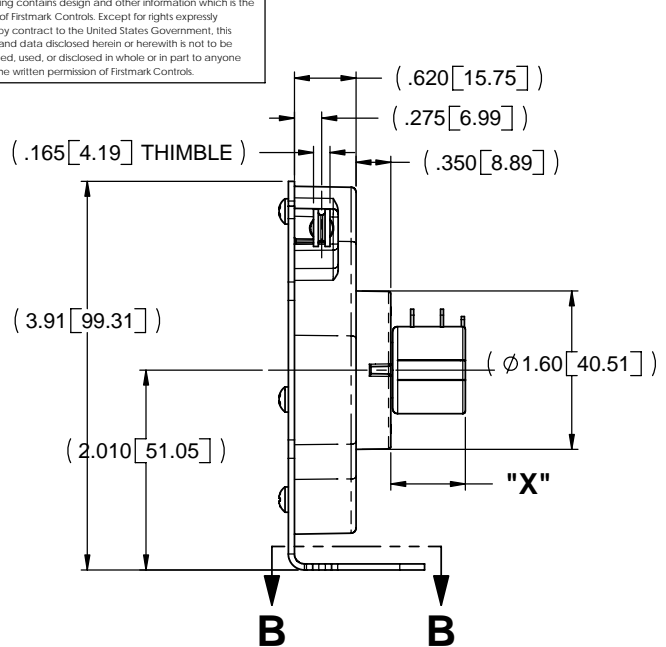
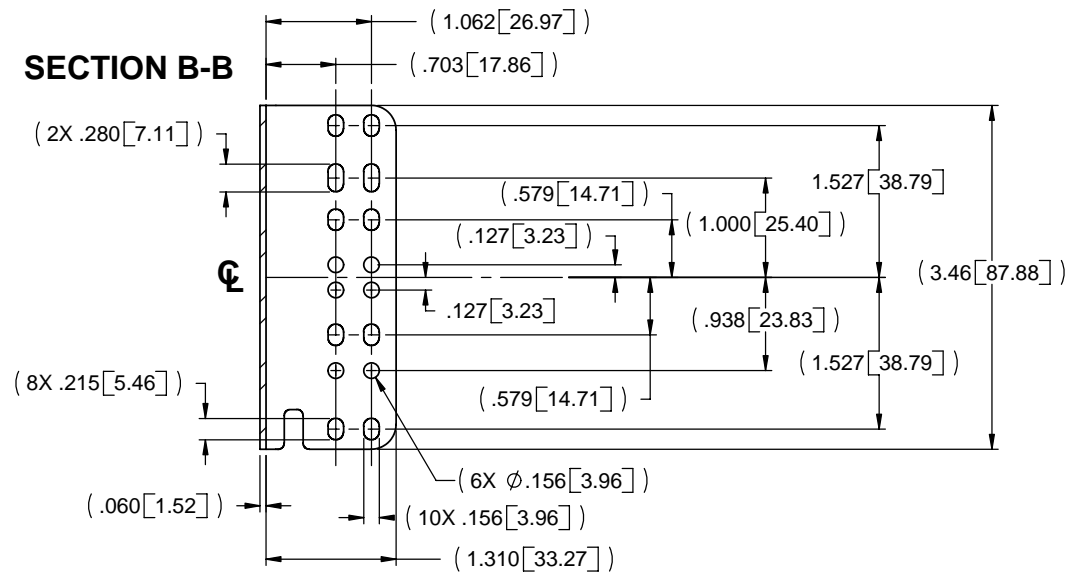


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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PER CO 37131 (U)	JCW 7/27/07	7/27/07 DLW / AA



SECTION B-B



SENSOR CONFIGURATION	DIM "X" (NOMINAL)
POTENTIOMETER	.75
134.4 LINE / INCH ENCODER	.50
3674 LINE / INCH ENCODER	.55
POTENTIOMETERS WITH FLYING LEADS (INCLUDING 90° CABLE-BEND RELIEF)	2.23
SENSORS WITH MS3102R14S-6P CONNECTOR (TO END OF CONNECTOR)	2.29
SIGNAL CONDITIONER WITH MS3101E-14S-6P CONNECTOR (TO END OF CONNECTOR)	2.89
SIGNAL CONDITIONER WITH FLYING LEADS (INCLUDING 90° CABLE-BEND RELIEF)	3.80

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DIMENSIONS IN BRACKETS [] ARE MILLIMETERS	APPROVALS		DATE	FIRSTMARK CONTROLS 1176 TELECOM DRIVE CREEDMOOR, NC 27522 USA
	DRAWN	J. Wspoon	9/27/07	
MATERIAL	---	CHECKED	J. Wspoon	9/27/07
FINISH	---	ENG	J. Wspoon	9/27/07
CAD GENERATED DRAWING. DO NOT MANUALLY UPDATE	SCALE	CAD FILE	SHEET	OF

SERIES M POSITION TRANSDUCER

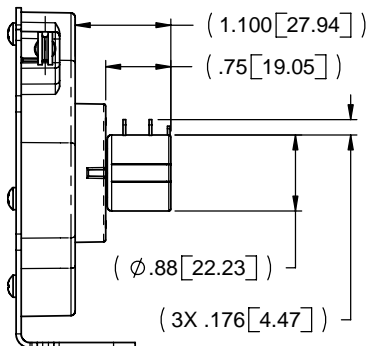
SIZE: CAGE CODE: DIVG. NO. 4100
B 3BMV1

REV. **A**

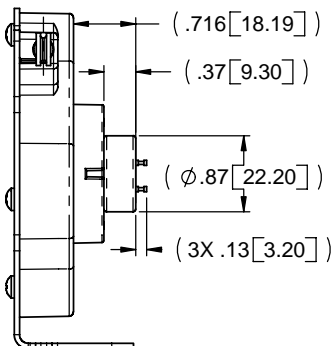
SHEET 1 OF 4

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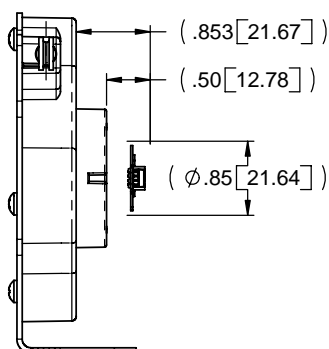
**POTENTIOMETER
(21.3 - 85.0 INCH CABLE TRAVEL)**



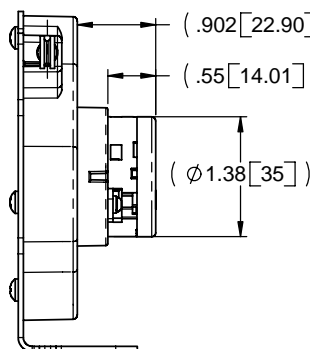
**POTENTIOMETER
(8.5 INCH CABLE TRAVEL)**



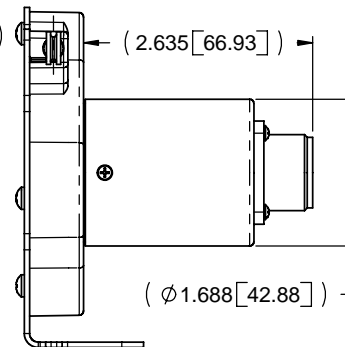
134.4 LINE / INCH ENCODER



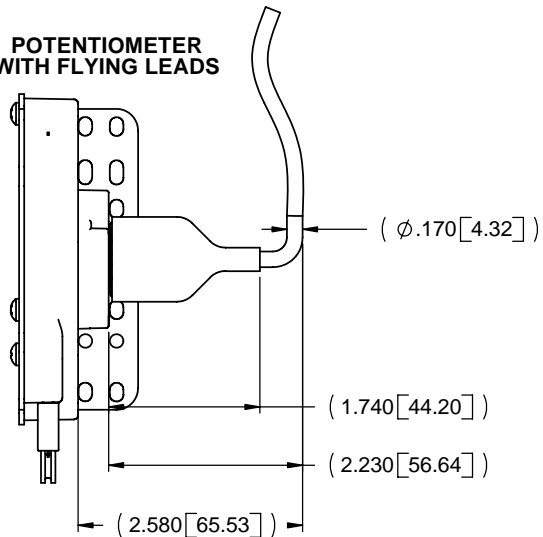
3674 LINE / INCH ENCODER



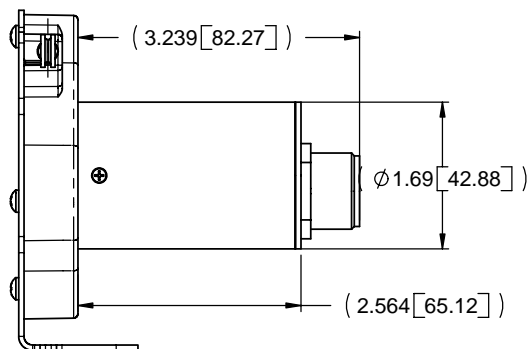
**MS3102R14S-6P
CONNECTOR**



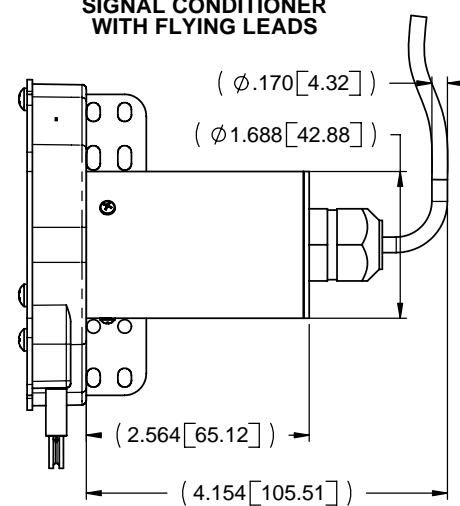
**POTENTIOMETER
WITH FLYING LEADS**



**SIGNAL CONDITIONER
WITH MS3101E14S-6P CONNECTOR**



**SIGNAL CONDITIONER
WITH FLYING LEADS**

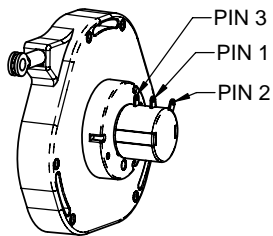


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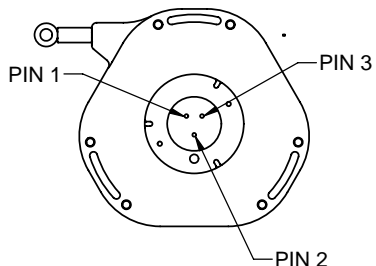
INTERCONNECT DETAILS

POTENTIOMETER PIN-OUTS

FOR CABLE TRAVEL RANGES
0 - 23.5 INCH, 0 - 42.5 INCH, 0 - 85 INCH



FOR 0 - 8.5 INCH CABLE TRAVEL

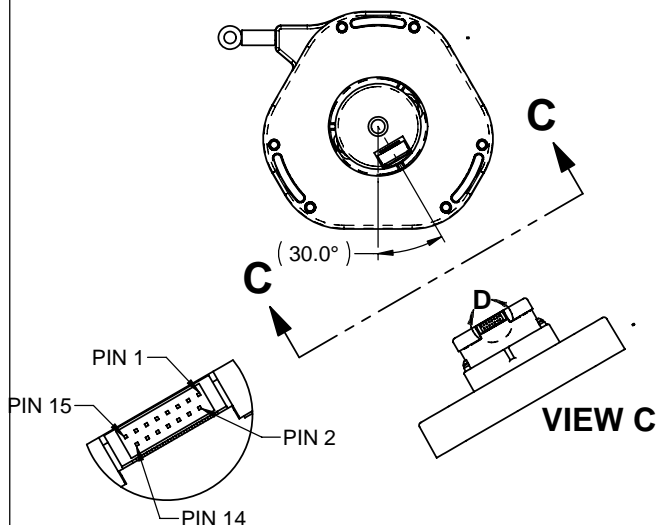


VOLTAGE DIVIDER (POTENTIOMETER)			
POT PIN	CABLE WIRE	MS3102 PIN	FUNCTION
1	RED	A	V+
2	WHITE	B	Vout +
3	BLACK	C	GND

OUTPUT CHARACTERISTICS (% OF FULL SCALE INPUT VOLTAGE)			
Design Travel	Output at Full Retraction	Output at "Design Travel"	Linearity
8.5	0 - 7%	90 - 100%	2%
21.3	0 - 5%	93 - 100%	0.25%
42.5	0 - 4%	95 - 100%	0.25%
85	0 - 3%	96 - 100%	0.25%

3764 LINE / INCH ENCODER PIN-OUTS

NOTE: RESOLUTION IS AFTER QUADRATURE, OVER 85 INCHES OF CABLE TRAVEL

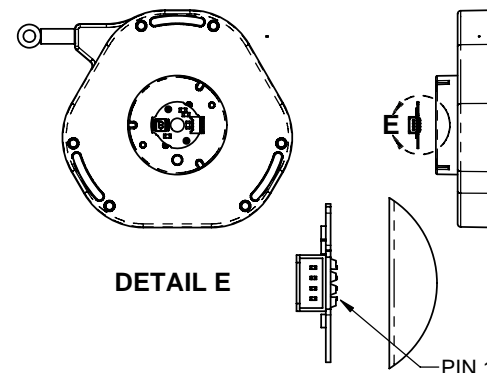


DETAIL D

3764-LINE / INCH ENCODER PIN-OUTS				
ENCODER PIN	CABLE WIRE	MS3102 (A-B-Z)	MS3102 (A-B-C)	FUNCTION
1	YELLOW	E	E	A
2	YELLOW-WHITE		C	A-
3	BLUE	D	D	B
4	BLUE-WHITE		F	B-
5	ORANGE	C		INDEX
6	ORANGE-WHITE			INDEX -
13	RED	B	B	+5V
14	BLACK	A	A	GND

134.4 LINE / INCH ENCODER PIN-OUTS

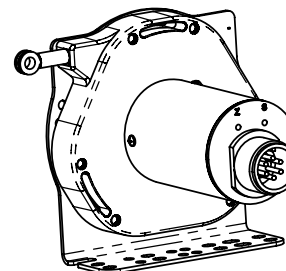
NOTE: RESOLUTION IS AFTER QUADRATURE, OVER 85 INCHES OF CABLE TRAVEL



DETAIL E

134.4 LINE / INCH ENCODER PIN-OUTS			
ENCODER PIN	CABLE WIRE	MS3102 PIN (A-B)	FUNCTION
1	ORANGE	B	+5V
2	BLUE	E	A
3	ORANGE-WHITE	A	GND
4	BLUE-WHITE	D	B

SIGNAL CONDITIONER PIN-OUTS



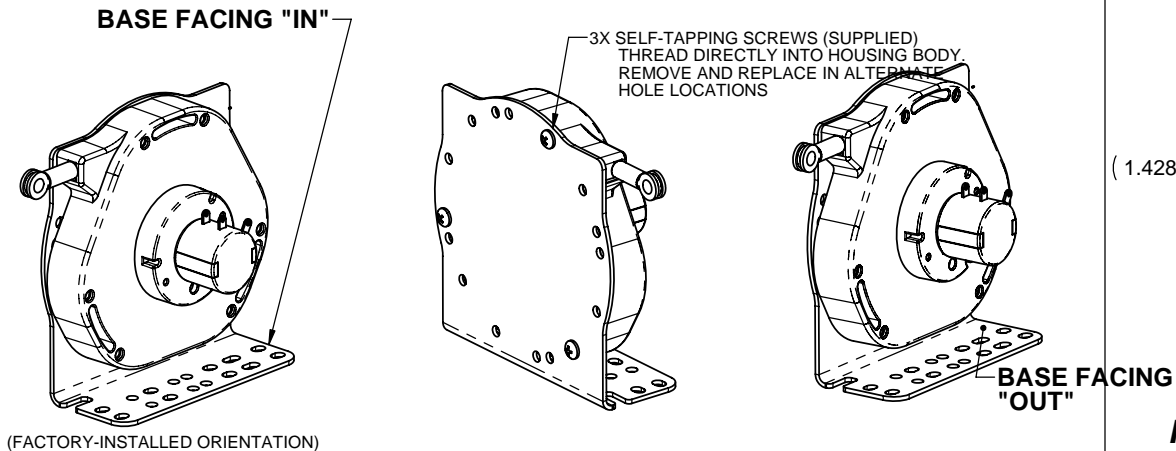
VOLTAGE CONDITIONER		
CABLE WIRE	MS3101 PIN	FUNCTION
RED	A	Vin+
BLACK	B	GND in
WHITE	C	Vout +
GREEN	D	GND out

4-20 mA (CURRENT LOOP)		
CABLE WIRE	MS3101 PIN	FUNCTION
RED	A	V+
BLACK	B	V-

SIZE: CAGE CODE: DWG. NO. 4100 REV. A
B 3BMV1
SCALE: CAD FILE: SHEET 3 OF 4

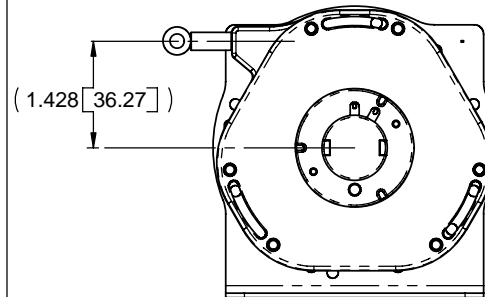
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MOUNTING BASE ORIENTATIONS

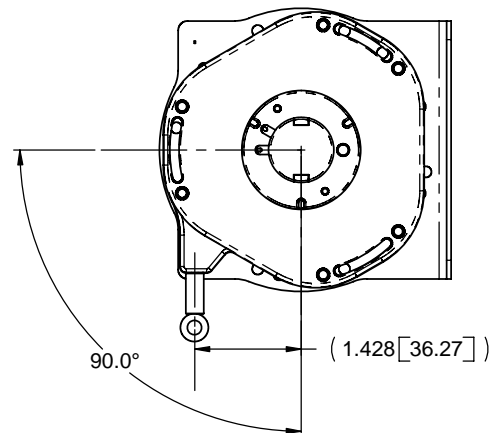


POSSIBLE ORIENTATIONS USING FIXED MOUNTING HOLES IN BASE

FIXED ANGLE = 0°



FIXED ANGLE = 90°



ANGLE (DEGREES)	BRACKET "IN"	BRACKET "OUT"
0	X	X
10	X	
20		X
30	X	X
40	X	
50		X
60	X	X
70	X	
80		X
90	X	X
100	X	
110		X
120	X	X
130	X	
140		X
150	X	X
160	X	
170		X
180	X	X
190	X	
200		X
210	X	X
220	X	
230		X
240	X	X
250	X	
260		X
270	X	X
280	X	
290		X
300	X	X
310	X	
320		X
330	X	X
340	X	
350		X

SLOT-MOUNT USING NUT AND BOLT (FOR 360° INFINITE-PITCH ALIGNMENT)

