

1

2

3

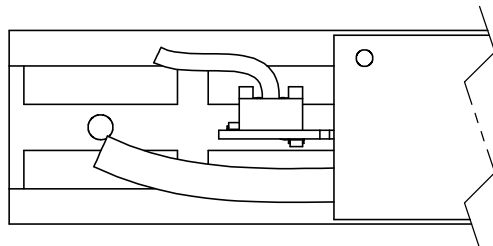
4

5

A

A

OPTIONAL HALL MODULE MUST BE IN
MAGNET TRACK FOR COMMUTATION



B

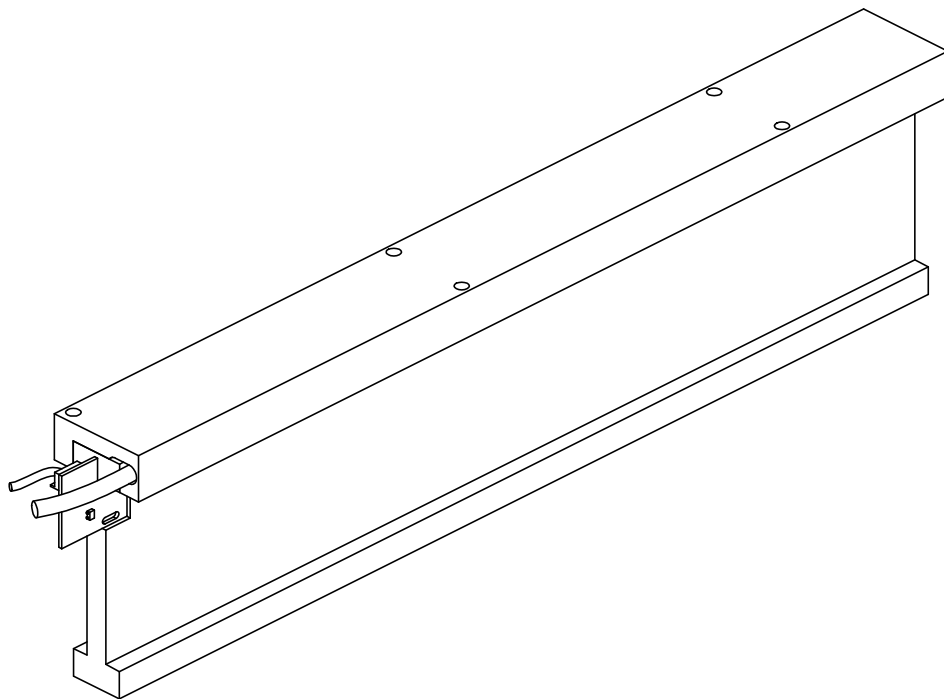
B

C

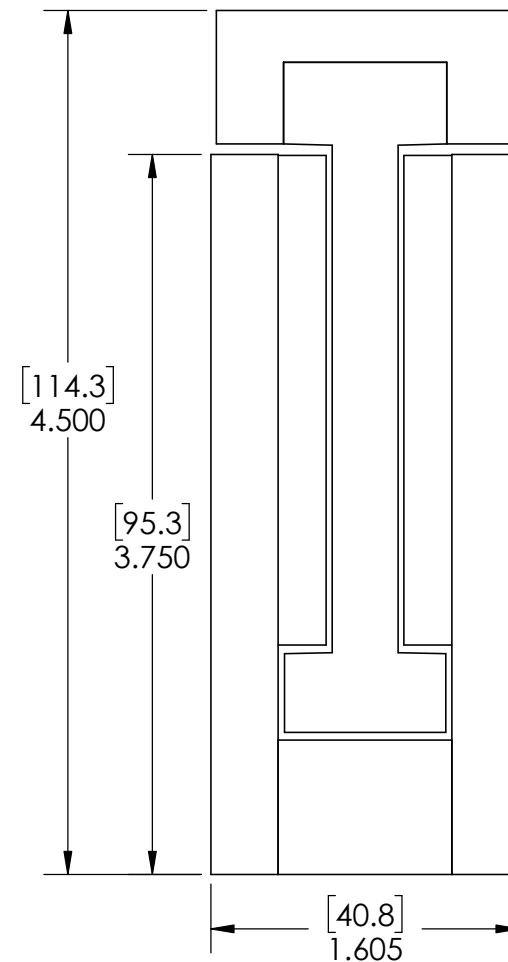
C

D

D



MOTOR COIL SHOWN
WITH MAGNET TRACK



H2W Technologies, Inc.
Santa Clarita, CA 91350 USA
Tel: (661) 291-1620
www.h2wtech.com

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UNLESS SPECIFIED OTHERWISE:
All dimensions are in inches
Standard Tolerances are as follows
.XXX $\pm .005$ ANGLES $\pm 1^\circ$
.XX $\pm .010$ FILLETS .010
.X $\pm .020$ CORNERS .010
Remove All Burrs and Sharp Edges

**FOR
REFERENCE
ONLY**

MATERIAL

FINISH

TITLE

Ironless Motor Coil Model #:
BLDM-E12

DWG #

20-0229

REV

DATE

5-12-15

SHEET

2 of 3

1

2

3

4

5

A

A

B

B

C

C

D

D

Motor Specifications		
BLDM-E12		
General		
Continuous Force	lbs [N]	85 [377]
Continuous Current	Amps	3.1
Continuous Power	Watts	214.1
Peak Force @ 10% Duty	lbs [N]	254 [1132]
Peak Current @ 10% Duty	Amps	9.2
Peak Power @ 10% Duty	Watts	1926.9
Electrical		
Force Constant	lbs/Amp [N/Amp]	27.7 [123]
Back EMF	V/in/sec [V/m/sec]	3.12 [123]
Resistance	Ohms	17.6
Inductance	mH	27.6
Electrical Time Constant	msec	1.6
Km Motor Constant	lbs/sqW [N/sqW]	6.6 [29.3]
Mechanical		
Electrical Cycle Length	in [mm]	2.4 [60.96]
Number of Poles	12	
Coil Assembly Length		
with Hall Sensor	in [mm]	15.65 [397.5]
without Hall Sensor	in [mm]	14.9 [378]
Coil Assembly Weight	lbs [kg]	4.78 [2.17]
Magnet Track Weight	lbs/in [kg/m]	0.96 [17.2]

Wiring	
Motor	
Phase A	White/Red Stripe
Phase B	White
Phase C	White/Black Stripe
Ground	White/Green Stripe
Thermostat 1	Blue
Thermostat 2	Orange
Hall Effect	
Hall A	White
Hall B	Red
Hall C	Black
Hall Ground	Green
Hall Power (+5-24VDC)	Brown, Orange, Violet, Yellow



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.XXX ±.005 ANGLES ±.1°
.XX ±.010 FILLETS .010
.X ±.020 CORNERS .010
Remove All Burrs and Sharp Edges

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