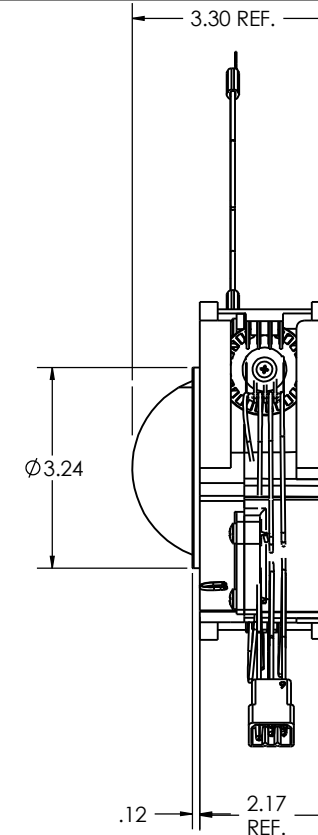
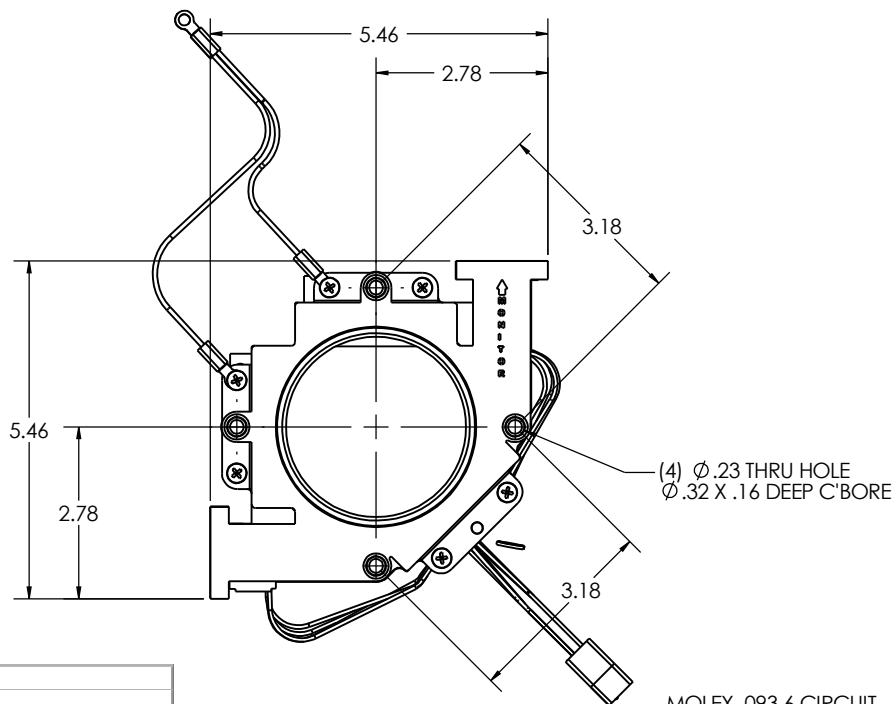


DRAWING NO.
56-0110-XXGA

Original
By: Pepe Date:08/03/10 9:39

REV.	ZONE	DESCRIPTION	E.C.N. #	BY	DATE
A	-	INITIAL RELEASE	9437	JAR	09/21/99
B		REMOVED LABEL	9487	JAR	10/01/99
C		ADDED TIE WRAP	11589	JAR	08/31/00
D		ADDED "-18" TO COLOR CODE TABLE	16892	JAR	05/21/02

COLOR CODE (XX = COLOR)	
10	RED SOLID
10T	RED TRANSLUCENT
11	WHITE SOLID
12	BLUE SOLID
12T	BLUE TRANSLUCENT
13	GREEN SOLID
13T	GREEN TRANSLUCENT
15	YELLOW
16	BLACK SOLID
18	CLEAR



MOLEX .093 6 CIRCUIT
PLUG # 03-09-2062
WITH MALE TERMINAL

MAJOR COMPONENTS MATERIAL SPECIFICATIONS	
COMPONENT	MATERIAL
3.000" DIA BALL	THERMOSET RESIN
HOUSING LOWER	POLYCARBONATE
HOUSING UPPER	POLYCARBONATE
BALL BEARINGS	(6) OILED DOUBLE SHIELD BALL BEARING
IDLER SHAFT	CASE HARDENED C.R.S. SHAFT
ROLLER SHAFT	(2) CASE HARDENED C.R.S. SHAFT
STAR WHEEL	(2) ETCHED STAINLESS 24 APPERTURE ENCODER DISK
OPTIC SENSOR	(2) DUAL CHANNEL OPTIC P.C.B.
WIRING HARNESS	SEE HARNESS SPECIFICATIONS

POSITION	COLOR	FUNCTION
1	BLK(X2)	COMMON
2	RED(X2)	+5 VDC
3	YELLOW	HORIZ 1
4	GREEN	HORIZ 2
5	BLUE	VERT 1
6	VIOLET	VERT 2

NOTES:
1.) TRACK BALL REQUIRES +5 VOLTS DC
AND HAS AN OUTPUT CONSISTING OF TWO
5 VOLT SQUARE WAVES IN QUADRATURE
CAPABLE OF SOURCING OR SINKING 4 ma.

TOLERANCES ARE:
FRACTIONS DECIMALS ANGLES
± 1/32 XX ± .01 ± 0°30'
UNLESS OTHERWISE SPECIFIED,
DIMENSIONS ARE IN INCHES.

DO NOT SCALE DRAWING.

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HAPP CONTROLS, inc.
Manufacturer of Electronic Controls

DRAWING NAME: TRACKBALL ASSY, 3" HIGH-BALL
W/ STANDARD HARNESS

DRAWN BY: JAR DATE: 09/21/99 CHECKED BY: A. F. DATE: 21-MAY-02

SIZE: B SCALE: 1:2 SHEET: 1 of 1 DRAWING NO.: 56-0110-XXGA REV.: D