

NOTES:

- MARKING TO INCLUDE:
 "OTTO" P/N & DATE CODE "YYWW".
 OUTPUTS ARE FROM THE CENTER TO THE FULL TRAVEL POSITION.
 OPTIONS "AA", "BB", "CC", "DD", "EE", "FF" PROVIDE INCREASED VOLTAGE IN +Y; AND DECREASING VOLTAGE IN -Y DIRECTION FROM ONE OUTPUT PER AXIS.
 OPTIONS "GG" AND "HH" PROVIDE INCREASING VOLTAGES.
 IN ALL DIRECTIONS (+Y, -Y) FROM 2 OUTPUTS PER AXIS.
 OPTIONS "BB" AND "EE" PROVIDE REDUNDANT OUTPUT 2 WHICH DUPLICATES OUTPUT 1.
 OPTIONS "CC" AND "FF" PROVIDE REDUNDANT OUTPUT 2 WHICH IS INVERSE OF OUTPUT 1.
 4. THIS PART/PRODUCT IS TO BE MANUFACTURED WITH THE APPLICABLE REGULATIONS OF EC DIRECTIVES 2002/95/EC AND 2002/96/EC. RESTRICTION OF THE USE OF HAZARDOUS SUBSTANCES IN ELECTRICAL AND ELECTRONIC EQUIPMENT (RoHS) AND WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE).
 SEE PAGE 3 FOR ALTERNATE BUTTON DESIGN.

HTL2-

BUTTON STYLE

- 1 : CASTLE
- 2 : EXTERNAL CASTLE BOOT
- 3 : SHORT DOUBLE STADIUM
- 4 : TALL CONCAVE STADIUM
- 5 : EXTERNAL BAT HANDLE BOOT
- 6 : EXTERNAL SMOOTH BOOT
- 7 : LONG CONCAVE Y AXIS BUTTON

CASE STYLE

1 : .970 SQ.

SEAL

- 1 : DUSTTIGHT
- 2 : WATERTIGHT

TRAVEL

1 : 25 DEGREES

OPERATE FORCE

1 : 16 OZ

OUTPUT 1

- AA : 2.5+/2.0 VDC
 BB : 2.5+/2.0 VDC
 CC : 2.5+/2.0 VDC
 DD : 2.5+/1.5 VDC
 EE : 2.5+/1.5 VDC
 FF : 2.5+/1.5 VDC
 GG : 0.5-4.5 VDC
 HH : 1-4 VDC

OUTPUT 2

- NONE
 2.5+/2.0 VDC
 2.5+/2.0 VDC
 NONE
 2.5+/1.5 VDC
 2.5+/1.5 VDC
 0.5-4.5 VDC
 1-4 VDC

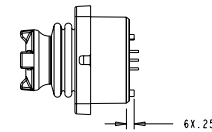
TERMINATION

- 1 : WIRE LEADS
- 2 : PINS

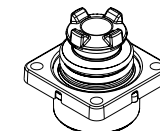
BUTTON COLOR

2 : BLACK

REV	OCN	DATE	APR
A	044213	17 JUL 08	LBC
B	046891	19 JAN 09	LBC

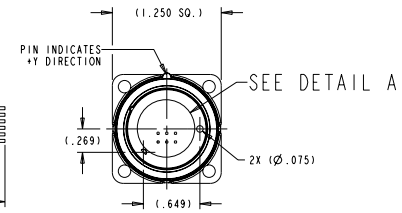
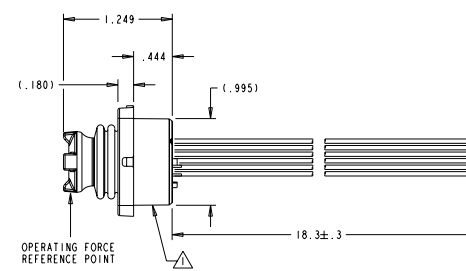
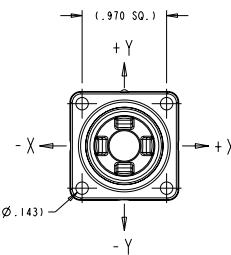


PINS NOT PRESENT
 IN ALL CONFIGURATIONS

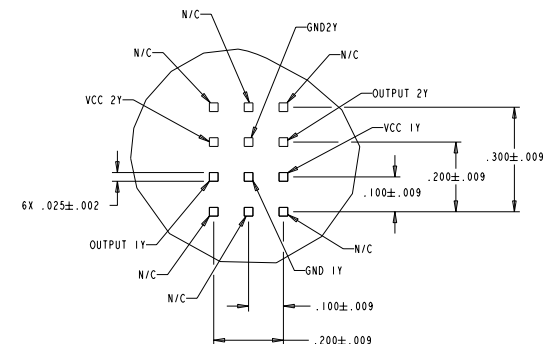
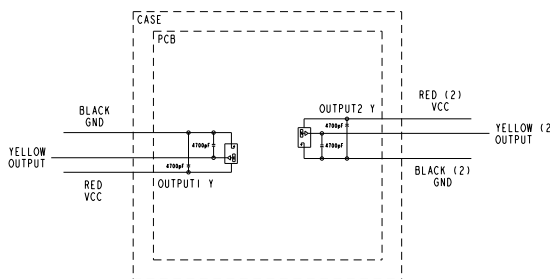


SCALE 1:1

PRODUCT SPECIFICATIONS				
ELECTRICAL:				
RATED AT V _{cc} = 5V @ 20°C LOAD = 1ma (4.7KΩ)	UNITS	MIN	TYP	MAX
SUPPLY VOLTAGE, V _{cc}	VDC	4.50	5.00	5.50
OUTPUT VOLTAGE TOLERANCE AT CENTER (SEE APPROPRIATE GRAPH FOR OUTPUT VALUES)	VDC @5V V _{cc}	-.25		+.25
OUTPUT VOLTAGE TOLERANCE FULL TRAVEL (SEE APPROPRIATE GRAPH FOR OUTPUT VALUES)	VDC @5V V _{cc}	-.25		+.25
SUPPLY CURRENT B=0, V _{cc} =5V, I _o =0	mA		32.00	40.00
OUTPUT SOURCE CURRENT LIMIT B=+X, V _o =0	mA	-1.00		1.00
OUTPUT RESISTANCE I _o ≤ -2 mA	Ω		1.00	10.00
MECHANICAL:				
MECHANICAL LIFE ALL DIRECTIONS	1,000,000 CYCLES			
TRAVEL ANGLE	DEGREES	23	25	27
OPERATING FORCE (W/BOOT) AT TOP OF BUTTON, @ 20°C	OZ		16	20
MAX. ALLOWABLE VERTICAL FORCE ON BUTTON	LBS			25
MAX. ALLOWABLE RADIAL FORCE ON BUTTON	LBS			25
MAX. ALLOWABLE TORQUE ON BUTTON	IN-LBS			7.5
ENVIRONMENTAL:				
OPERATING TEMPERATURE	°C	-40	20	85
ELECTRONICS SEAL INTEGRITY	WATERTIGHT PER IP68S, 1 METER			
RF SUSCEPTIBILITY	100 V/m FROM 14 KHz TO 1 GHz			
EM SUSCEPTIBILITY	PER MIL-STD 461D, METHOD RE101 (SAE J1113-22) AT 50 AND 60 Hz.			
MATERIAL:				
BOOT	ELASTOMER, BLACK			
BUTTON	THERMOPLASTIC, BLACK			
CASE	THERMOPLASTIC, BLACK			
FLANGE	THERMOPLASTIC, BLACK			
WIRES (IF PRESENT)	22 AWG, UL1569, COLOR PER SCHEMATIC			
HARDWARE	4X ITW FASTEX PANEL FASTENER P/N 36030002 OR EQUIVALENT			



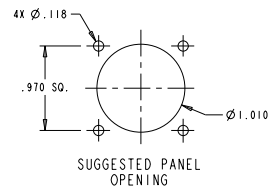
B



DETAIL A

SCALE 4:1

ALL PINS NOT PRESENT IN ALL CONFIGURATIONS



SUGGESTED PANEL
 OPENING

BLUE (2)
 OUTPUT

ALL WIRES NOT PRESENT
 IN ALL CONFIGURATIONS

OUTPUT2 NOT PRESENT
 IN ALL CONFIGURATIONS

UNLESS OTHERWISE
 SPECIFIED:
 DIMENSIONS ARE
 IN INCHES.
 TOLERANCES:
 .XX ±.03
 .XXX ±.010
 ANGLES ±.2°
 DO NOT SCALE

OTTO
 CARPENTERSVILLE, ILLINOIS USA

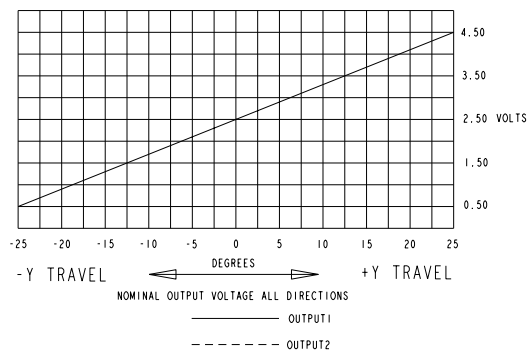
DESCRIPTION
 HTL2, LINEAR HALL EFFECT
 2-WAY TOGGLE

DRWN	RCW	SIZE	FSCM NO	DRAWING NO.	REV.
CHKD	LBC	C	21649	HTL2- - - - -	B
APPD	AH				
WT.					

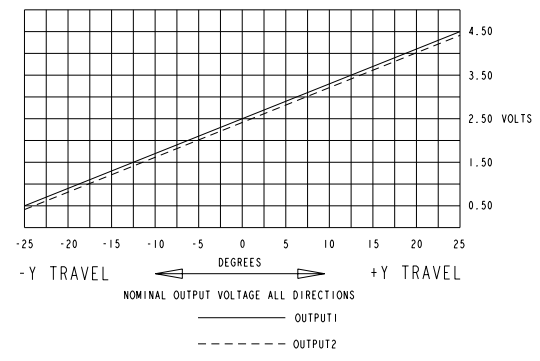
Scale 1:1 Sheet 1 of 4

HTL2-----			
REV	OCN	DATE	APR
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B	046891	19 JAN 09	LBG

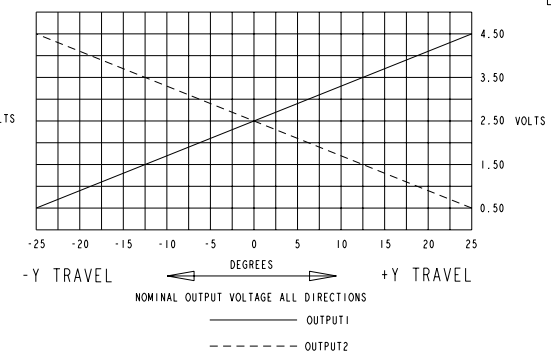
OPTION AA



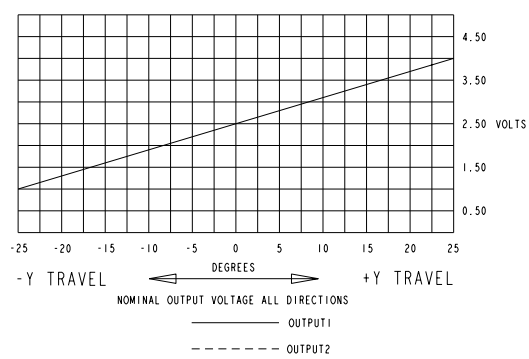
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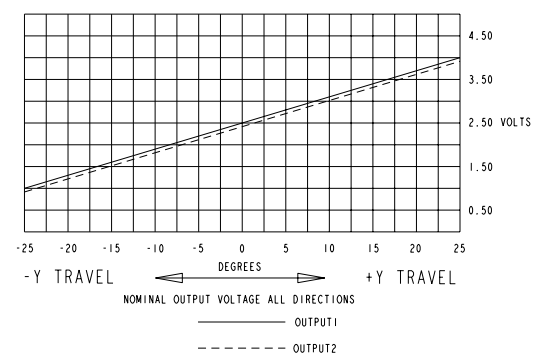
OPTION CC



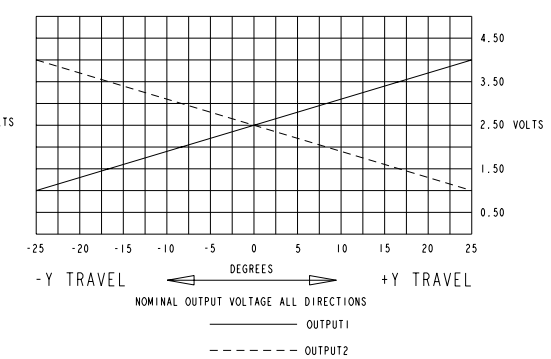
OPTION DD



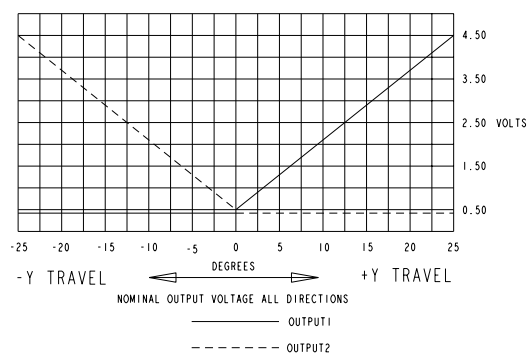
OPTION EE



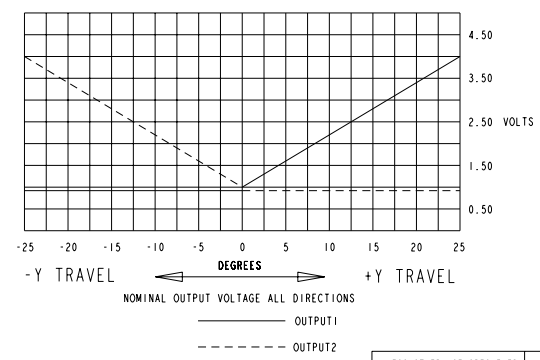
OPTION FF



OPTION GG

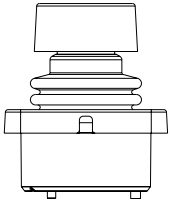
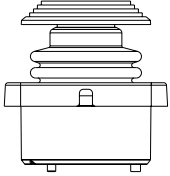
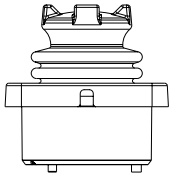
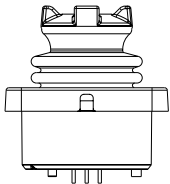
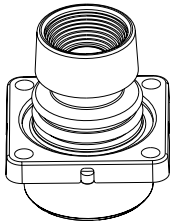
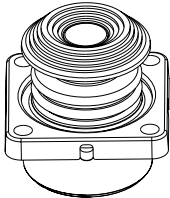
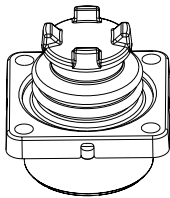
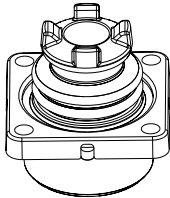


OPTION HH



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	XX	±.03		CHKD: LBG	C	21649	HTL2-----	B
	.XX	±.010		APPD: AH				

HTL2- - - - -			
REV	OCN #	DATE	APR
A	044213	17 JUL 08	LBG
B	046891	19 JAN 09	LBG



BUTTON STYLE 1
 (CASTLE)

BUTTON STYLE 2
 (EXTERNAL CASTLE BOOT)

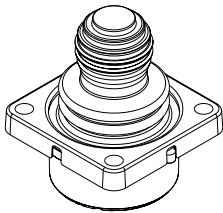
BUTTON STYLE 3
 (SHORT DOUBLE STADIUM)

BUTTON STYLE 4
 (TALL CONCAVE STADIUM)

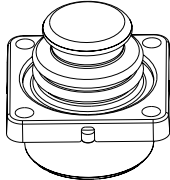
BUTTON STYLE CONFIGURATION

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	XX	±.03		CHKD: LBG	C	21649	HTL2- - - - -	B
	XXX	±.010		APPD: AH				
ANGLES ±2°		DO NOT SCALE DRAWING	1/4"=1" ANGLE PROJECTION		Scale 1:1		Sheet 3 OF 4	

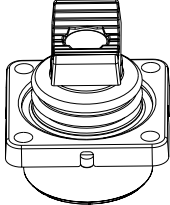
HTL2- - - - -			
REV	OCN	DATE	APR
A	044213	17 JUL 08	LBG
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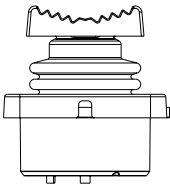
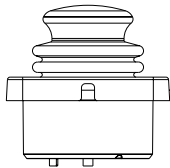
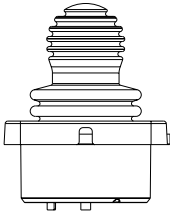
BUTTON STYLE 5
 (EXTERNAL BAT
 HANDLE BOOT)



BUTTON STYLE 6
 (EXTERNAL SMOOTH BOOT)



BUTTON STYLE 7
 (LONG CONCAVE Y AXIS BUTTON)



BUTTON STYLE CONFIGURATION

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	XX	±.03		CHKD: LBG	C	21649	HTL2- - - - -	B
	XXX	±.010		APPD: AH				
DO NOT SCALE DRAWING.				WT.		ISOTO ANGLE PROJECTION	Scale 1:1	Sheet 4 OF 4