



### GLAA20A2B



*Actual product appearance may vary.*

**Global Limit Switches Series GLS: Side Rotary With Roller - Adjustable, 2NC 2NO DPDT Snap Action, 0.5 in - 14NPT conduit**

#### Features

- Designed to IEC standard for world-wide applications
- UL, CSA, and CE
- International conduit sizes
- Direct PLC interface compatible (two circuit)
- Modular construction reduces maintenance parts costs
- Designed for ease of installation
- Variety of basic switch versions
- Wide choice of actuators

#### Potential Applications

- Machine tools: metal fabrication equipment, presses, transfer lines and special machinery
- Material handling equipment: conveyors, elevators, cranes, and hoists
- Packaging machinery and process equipment
- Textile machinery
- Construction machinery and equipment, vehicles and lift trucks

#### Description

The GLS series limit switches are specifically designed for world-wide applications and are supported by Honeywell global resources for sale and after sale service.

Product Specifications	
Availability	Global
Operating Force (O.F.)	0,330 N m [2.90 in lb]
Pretravel (P.T.)	26°
Overtravel (O.T.)	59°
Differential Travel (D.T.)	12°
Product Type	EN50041/47 Global Limit Switch
Actuator	Side Rotary
Lever Style	Roller - Adjustable
Circuitry	2NC 2NO DPDT Snap Action
Ampere Rating	10 A (Thermal)
Supply Voltage	600 Vac and 250 Vdc max.
Housing Material	Zinc Die-Cast

Termination Type	0.5 in - 14NPT conduit
Housing Type	EN 50041
Series Name	GLS DIN
Shock	50 g per IEC 68-2-27c (w/o Actuator)
Vibration	10 g per IEC 68-2-6 (w/o Actuator)
Sealing	NEMA 1, 4, 12, 13 IP67
Approvals	UL, CSA, CE
CSA File #	LR94369-3
UL File #	E37138 & E157416
Mechanical Life	15 million
Operating Temperature Range	-25 °C to 85 °C [-13 °F to 185 °F]
Comment	Roller Material: Steel
Agency Approvals and Standards	IEC 947-5-1, EN60947-5-1, UL508
UNSPSC Code	302119
UNSPSC Commodity	302119 Switches and controls and relays
Sealed	Industrial
Operating Position (O.P.)	26°

SIDE ROTARY

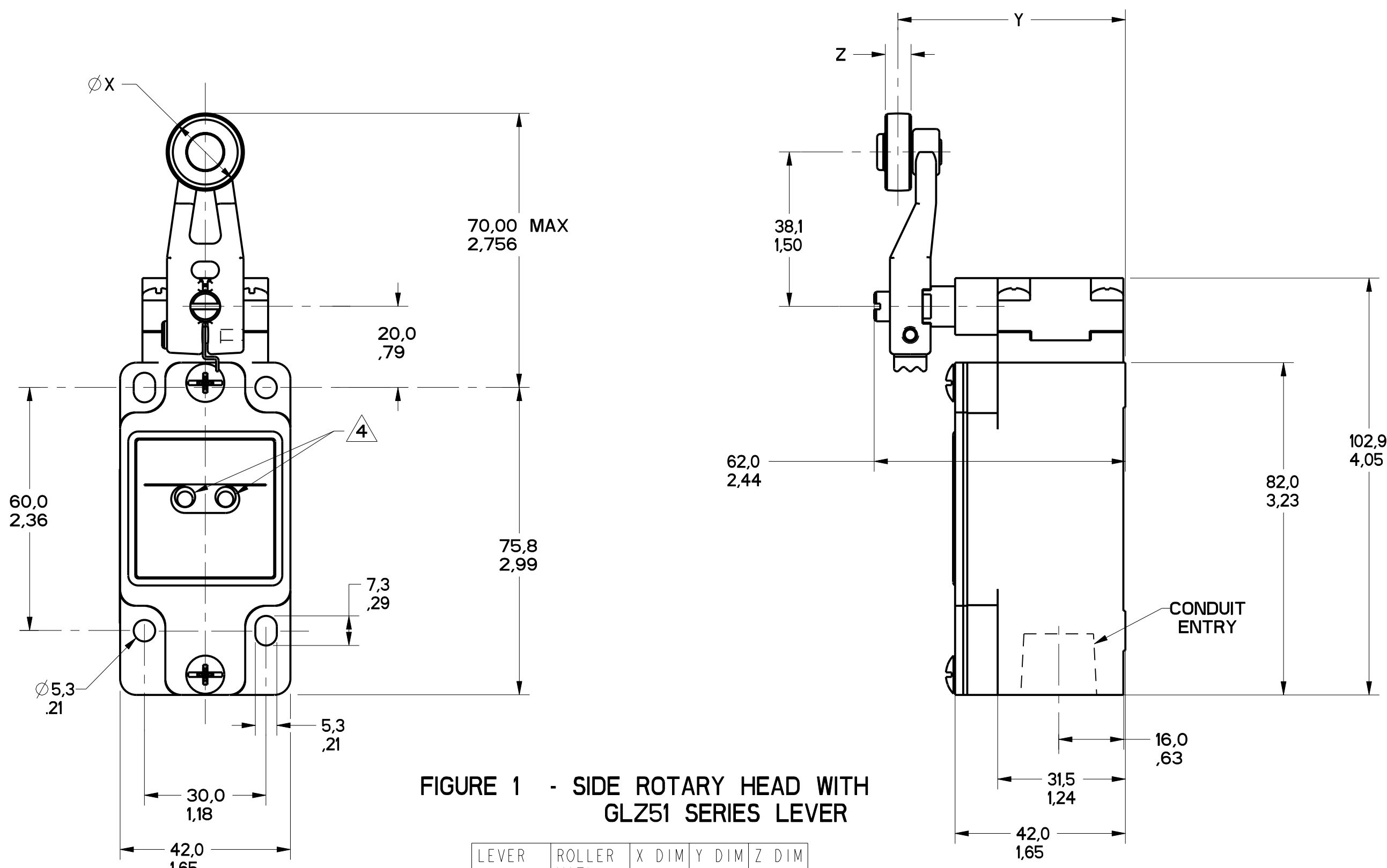


FIGURE 1 - SIDE ROTARY HEAD WITH GLZ51 SERIES LEVER

LEVER	ROLLER MATL	X DIM	Y DIM	Z DIM
GLZ51A	NYLON	19.1 .75	55.9 2.20	6.4 .25
GLZ51B	STEEL	19.1 .75	55.9 2.20	6.4 .25
GLZ51Y	RUBBER	50.0 1.97	66.1 2.60	10.0 .39

GLZ54J: 200.00 / 7.870 MAX  
GLZ54K: 140.00 / 5.510 MAX  
ALUMINUM ROD

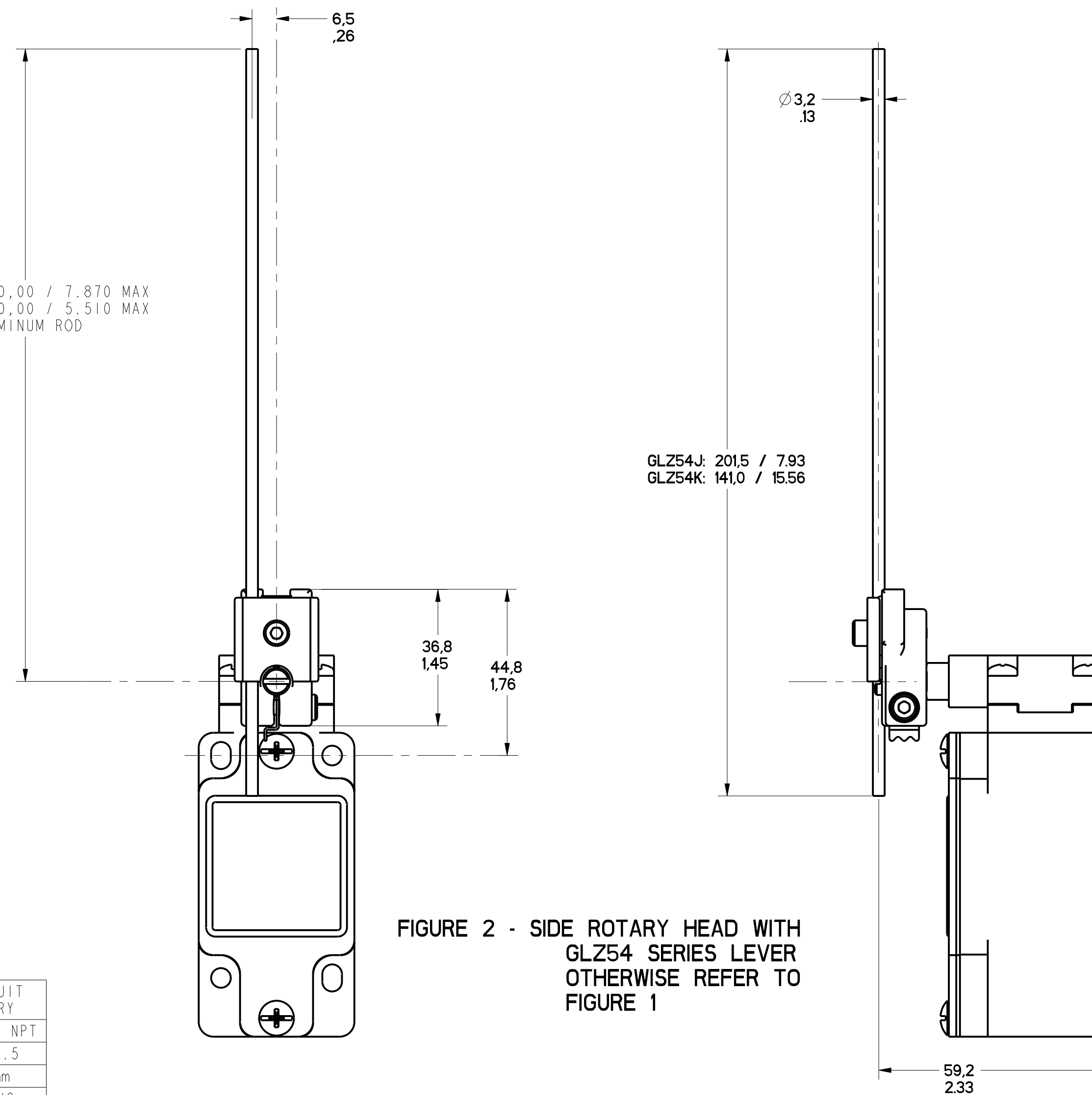


FIGURE 2 - SIDE ROTARY HEAD WITH GLZ54 SERIES LEVER OTHERWISE REFER TO FIGURE 1

FIGURE	CATALOG LISTING	CONDUIT ENTRY
1A	GL*A SERIES	1/2-14 NPT
1B	GL*B SERIES	PG13.5
1C	GL*C SERIES	20mm
1D	GL*D SERIES	PF1/2

ELECTRICAL RATING			
AC		DC	
A600 Ue (VOLTS)	AC15 Ie (AMPS)	O300 Ue (VOLTS)	DC13 Ie (AMPS)
120	6	24	2.8
240	3	125	.55
380	1.9	250	.27
480	1.5		
500	1.4		
600	1.2		

ENVIRONMENTAL RATING	
IP67	
NEMA/UL TYPES 1, 4, 12, 13	

- NOTES
- HEADS MAY BE INDEXED IN 90° INCREMENTS
  - LEVERS MAY BE KEYED TO THE SHAFT AT 90° INCREMENTS. THEY MAY ALSO BE ATTACHED, BUT NOT KEYED ANYWHERE ON THE SHAFT.
  - FOR ADDITIONAL LEVERS SEE "M" DRAWING CHART GLZ5
  - THE LEFT INDICATOR IS GREEN AND INDICATES "POWER ON" IT IS ON GLH SERIES PRODUCTS ONLY. THE RIGHT INDICATOR IS YELLOW AND INDICATES "OUTPUT STATUS" IT IS ON GLF AND GLH SERIES PRODUCTS ONLY.
  - THE MAXIMUM VOLTAGE,  $V_e$  OF GLF AND GLH SERIES PRODUCTS IS THE MAXIMUM RATED VOLTAGE OF INDICATION LIGHTS
  - FREE POSITION, OPERATE POINT, OVERTRAVEL AND PRETRAVEL ALL TO EN50041
  - CAM TRAVEL FOR FIG 9 ONLY APPLIES WHEN LEVER IS ADJUSTED TO 38.1 / 1.50
  - THE MAXIMUM VOLTAGE,  $V_e$  OF "06" AND "36" BASIC SWITCH CODE IS 500V (A500) TEMPERATURE RANGE
  - (ALL PRODUCTS EXCEPT W/SIDE ROTARY OPERATING HEAD)  
OPERATING: -25°C TO +85°C / -13°F TO +185°F  
STORAGE: -40°C TO +85°C / -40°F TO +185°F
  - (PRODUCTS W/SIDE ROTARY OPERATING HEAD)  
OPERATING: -40°C TO +85°C / -40°F TO +185°F  
STORAGE: -40°C TO +85°C / -40°F TO +185°F

CATALOG LISTING	BODY DIMENSIONS, FIGURE	HEAD DIMENSIONS, FIGURE	HEAD ACTUATION, FIGURE
GLA****	I	N/A	N/A
GLF****	I	N/A	N/A
GLH****	I	N/A	N/A
GLA****	1A	N/A	N/A
GLB****	1B	N/A	N/A
GLC****	1C	N/A	N/A
GLD****	1D	N/A	N/A
GL****A1*	I	1	8
GL****A2*	I	3	9
GL****A4*	I	2	10
GL****A5*	I		8
GL****B	I	4	11
GL****C	I	5	13A, 13B
GL****D	I	6	14A, 14B
GL****E7A	I	7A	12
GL****E7B	I	7	12
GL****E7C	I	7E	15
GL****E7D	I	7B	12
GL****K8A	I	7C	15
GL****K8B	I	7D	15
GL****K8C	I	7	15

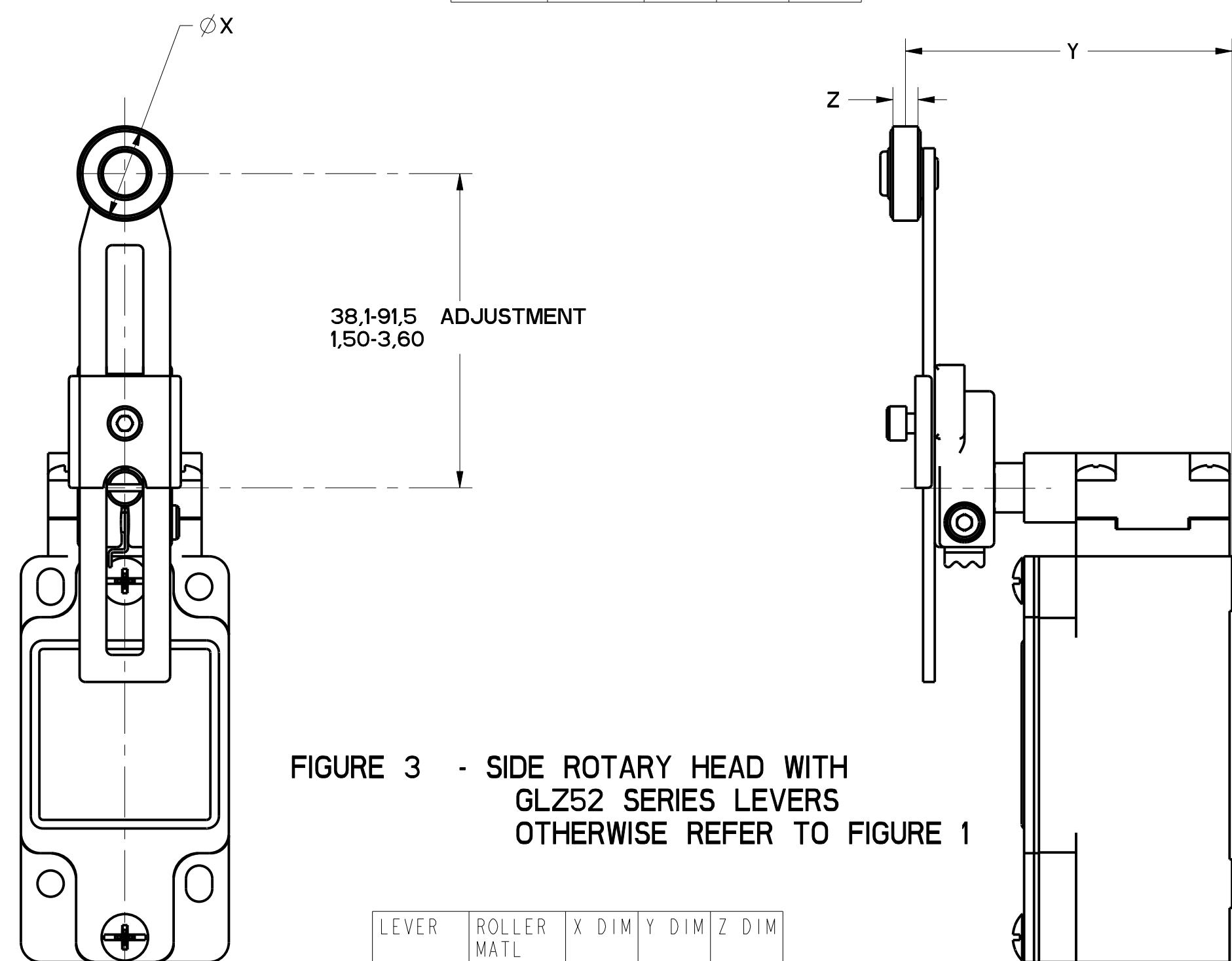


FIGURE 3 - SIDE ROTARY HEAD WITH GLZ52 SERIES LEVERS OTHERWISE REFER TO FIGURE 1

LEVER	ROLLER MATL	X DIM	Y DIM	Z DIM
GLZ52A	NYLON	19.1 .75	65.9 2.59	6.4 .25
GLZ52B	STEEL	19.1 .75	65.9 2.59	6.4 .25
GLZ52D	NYLON	38.1 1.5	65.9 2.59	6.4 .25
GLZ52E	NYLON	19.1 .75	79.37 3.125	33.07 1.300
GLZ52W	RUBBER	40.0 1.6	71.5 2.81	12.7 .5
GLZ52Y	RUBBER	50.0 1.97	68.8 2.71	10.0 .39

MGL SERIES CHART 1  
 DRAWING NUMBER: 12  
 PAGE: 1 OF 13  
 RELEASE NO. PR-201782  
 CHECK: MDM  
 DATE: 08/11/08  
 CHECK: B.L.R.  
 DATE: 02/27/41  
 DATE: 01/01/01  
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 DATE: 01/01/10  
 DATE: 01/01/08  
 DATE: 01/01/06  
 DATE: 01/01/04  
 DATE: 01/01/02  
 DATE: 01/01/00

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FED. MFG. CODE 91929

**MICRO SWITCH**  
a Honeywell Division

SWITCH, ENCLOSED

CATALOG LISTING  
**GL SERIES CHART 1**

THIRD ANGLE PROJECTION

SCALE: FULL

DO NOT SCALE PRINT

TOLERANCES

APPLY TO DESIGN UNITS. CONVERSIONS ARE ONLY FOR REFERENCE, UNLESS NOTED. TOLERANCES ARE:

	MM	IN	MM	IN
NO PLACES		1/16	0.01	0.0005
ONE PLACE	0.1	0.001	0.001	0.0005
TWO PLACES	0.01	0.0001	0.001	0.0005
THREE PLACES	0.001	0.00001	0.001	0.0005
ANGLES		±2'		

DESIGN UNITS:  SI METRIC  US CUSTOMARY

WEIGHT

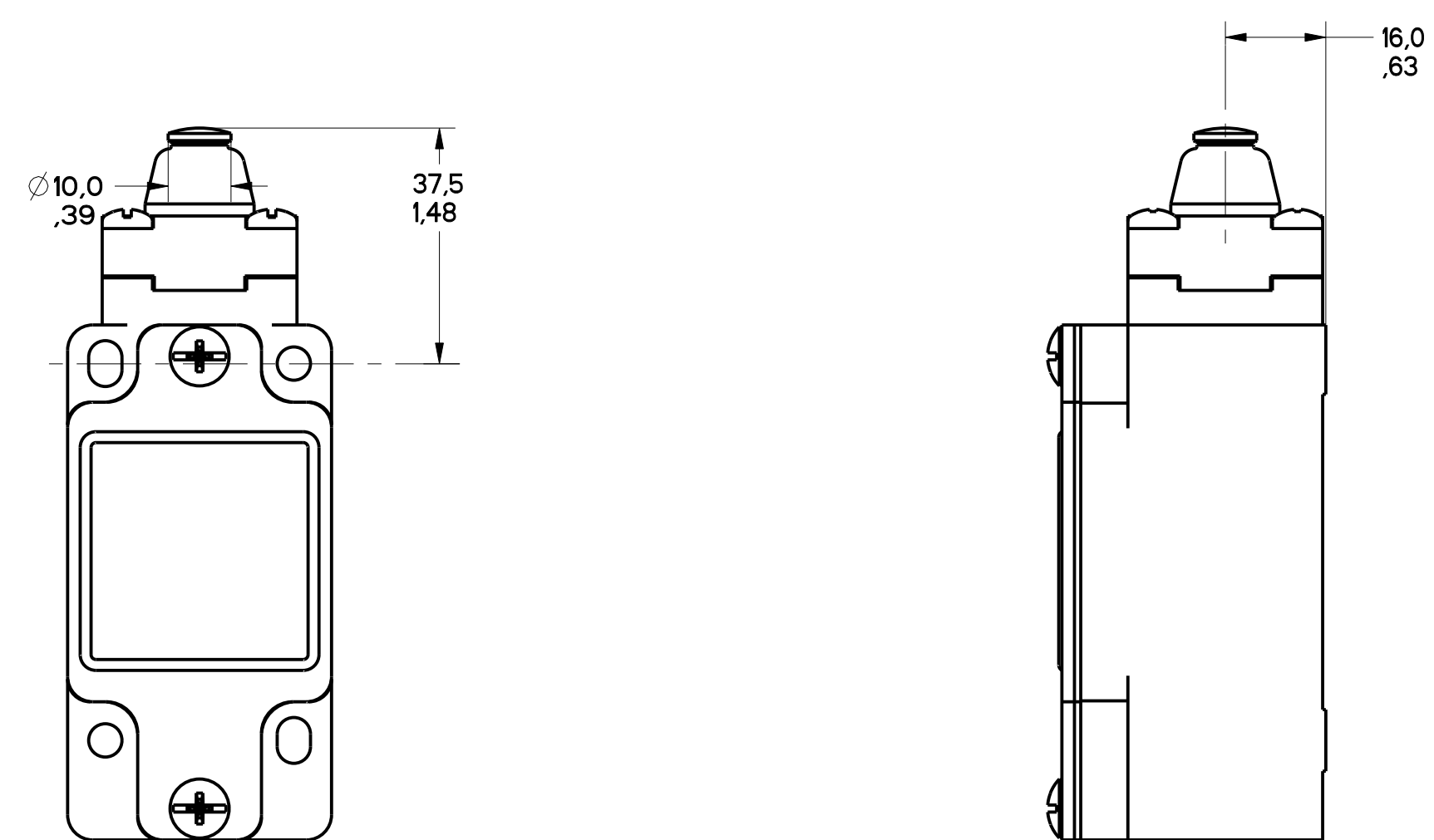


FIGURE 4 - TOP PIN PLUNGER HEAD  
OTHERWISE REFER TO  
FIGURE 1

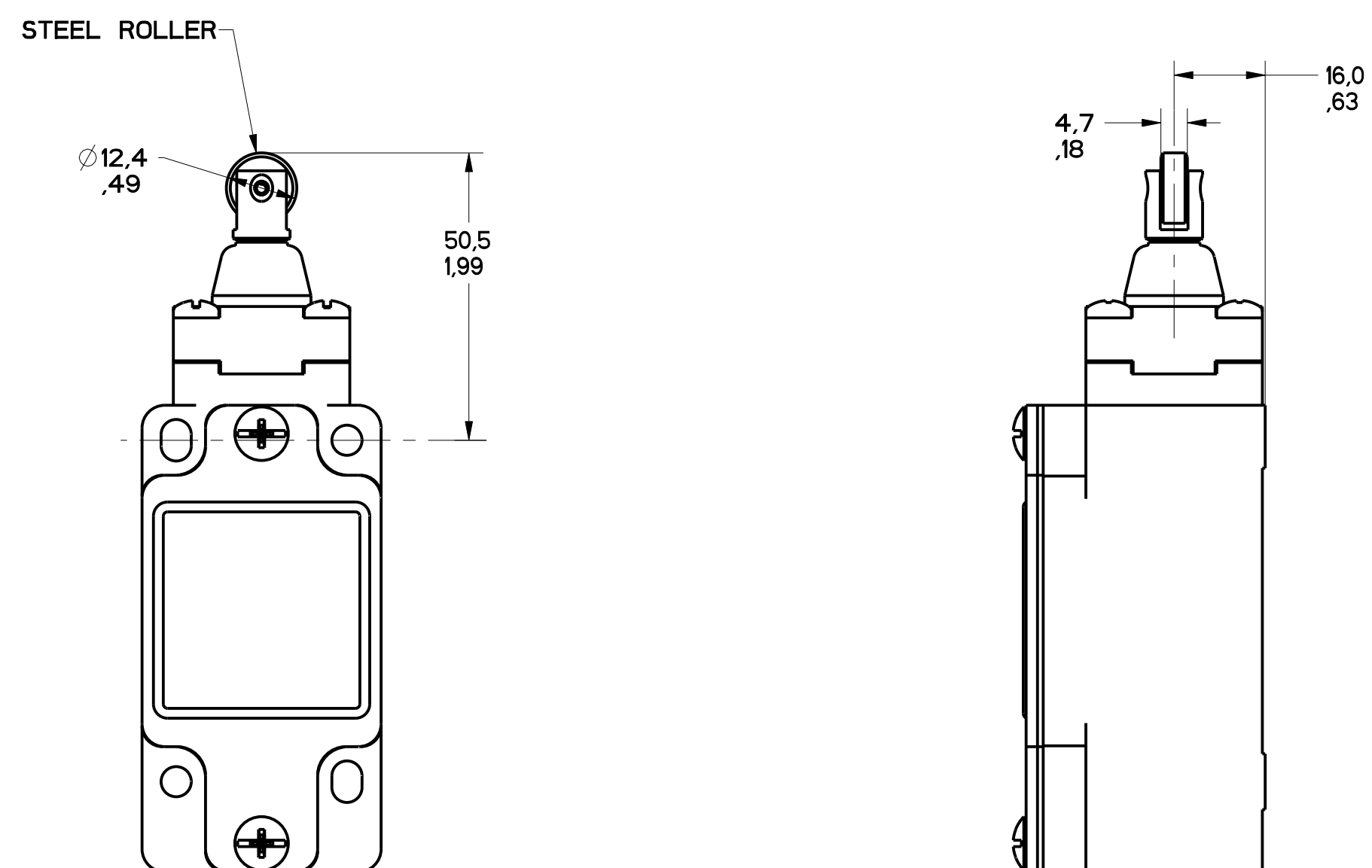


FIGURE 5 - TOP ROLLER PLUNGER HEAD  
OTHERWISE REFER TO  
FIGURE 1

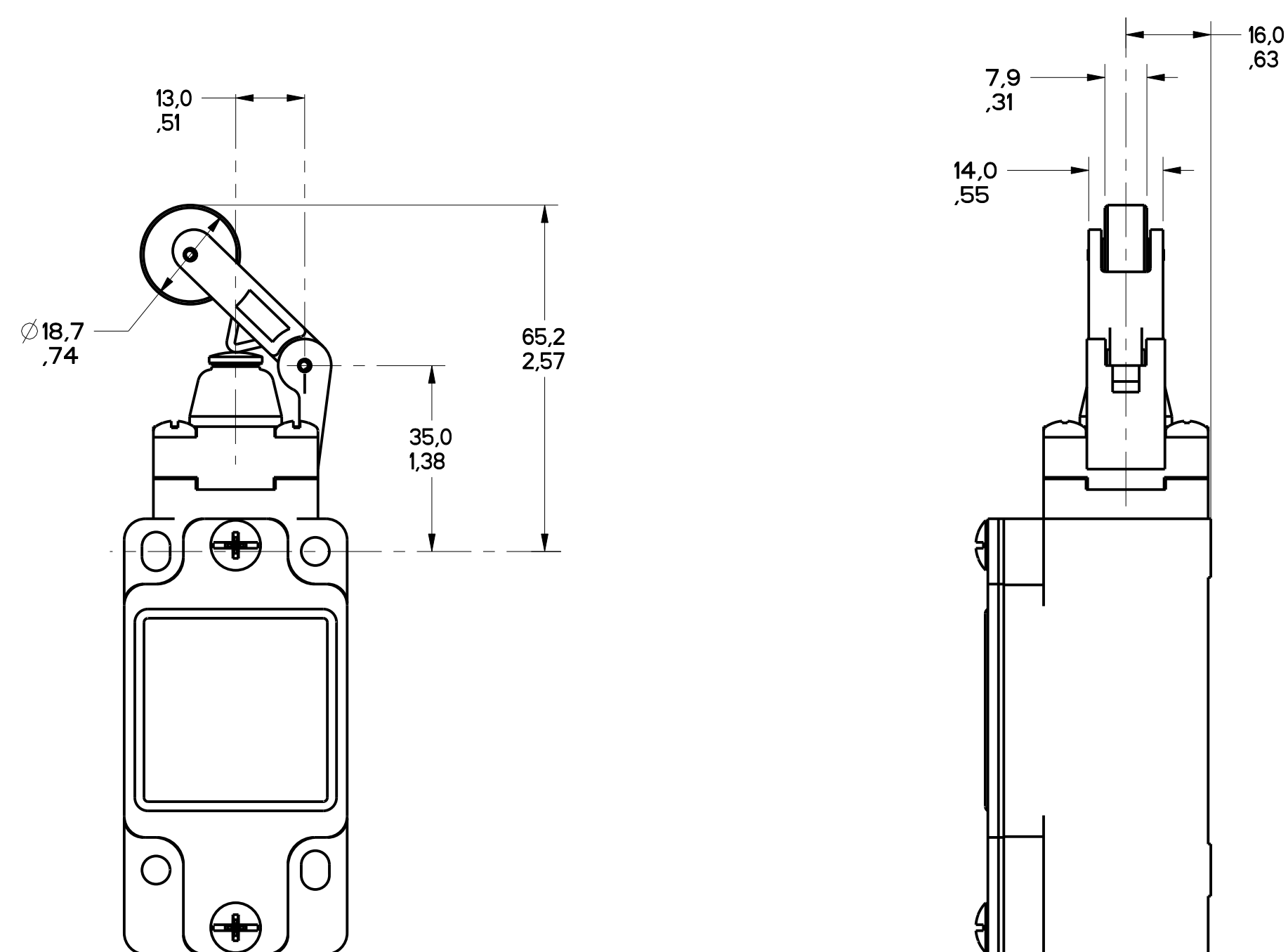


FIGURE 6 - TOP LEVER HEAD,  
OTHERWISE REFER TO  
FIGURE 1

MGL SERIES CHART 1  
 DRAWING NUMBER: 2 OF 13  
 RELEASE NO. PR-20782  
 REPLACES: MDX  
 CHECK: B.L.P.  
 CHECK: G.L.H.  
 P.T.C./CAD  
 W.L.S. 26AUG83  
 12  
 ISSUE: 12  
 DATE: 2 JUN 83  
 BY: JND/38  
 250541  
 202747  
 3AP/01  
 0000401  
 04  
 2 JUN 83  
 0002986  
 26 AUG 83  
 0023759  
 07 AUG 86  
 0037216  
 08 FEB 88

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DESIGN UNITS: <input checked="" type="checkbox"/> SI METRIC <input type="checkbox"/> US CUSTOMARY		<b>GL SERIES CHART 1</b>	
TOLERANCES APPLY TO DESIGN UNITS. CONCESSIONS ARE ONLY FOR REFERENCE, UNLESS NOTED. TOLERANCES ARE:		THIRD ANGLE PROJECTION SCALE: FULL DO NOT SCALE PRINT	
NO PLACES	±.04	NO PLACES	±.04
ONE PLACE	±.04	ONE PLACE	±.04
TWO PLACES	±.04	TWO PLACES	±.04
THREE PLACES	±.04	THREE PLACES	±.04
ANGLES	±.2°	ANGLES	±.2°
WEIGHT		WEIGHT	

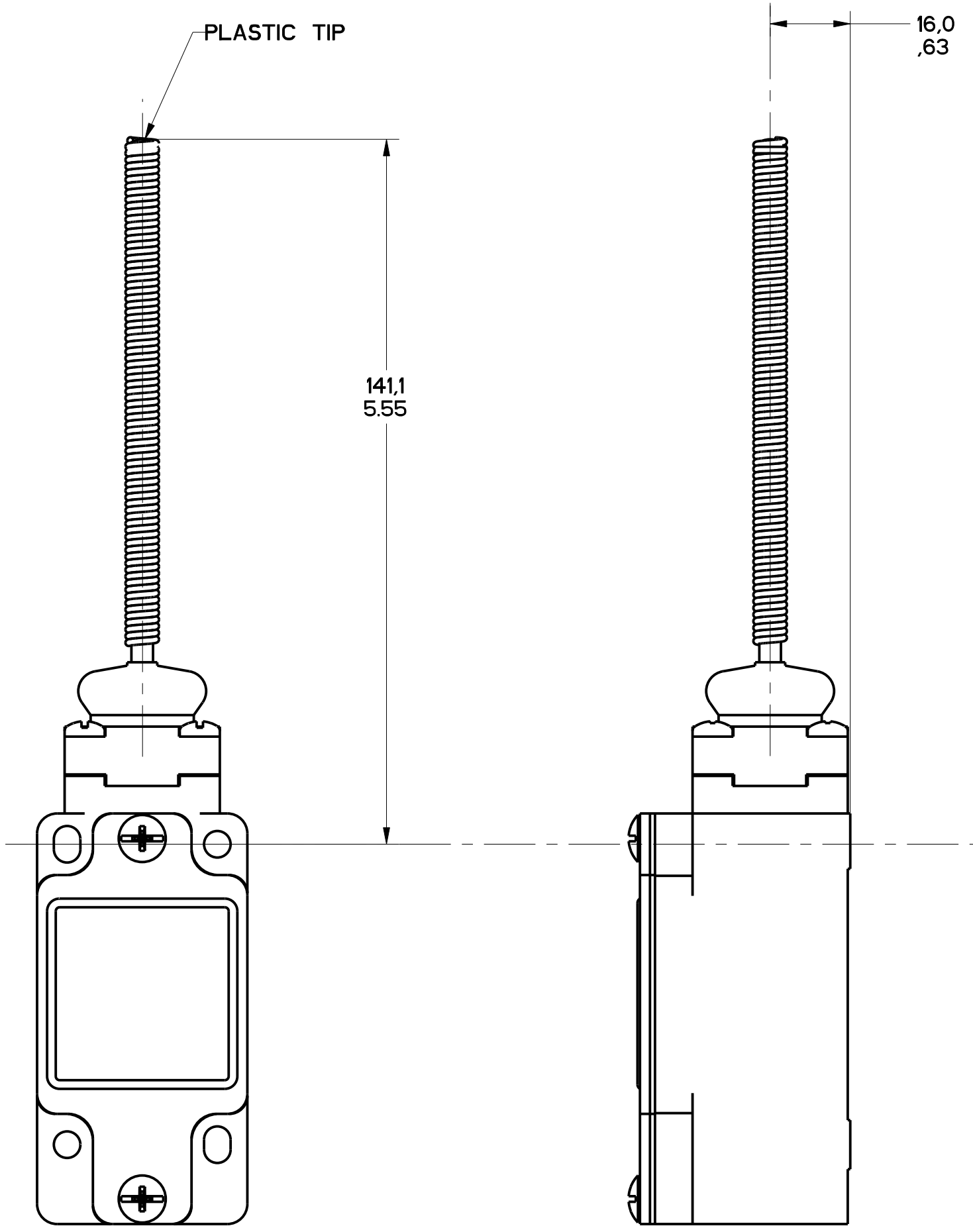


FIGURE 7 - WOBBLE HEAD, AND CAT WISKER HEAD COIL ACTUATOR, OTHERWISE REFER TO FIGURE 1

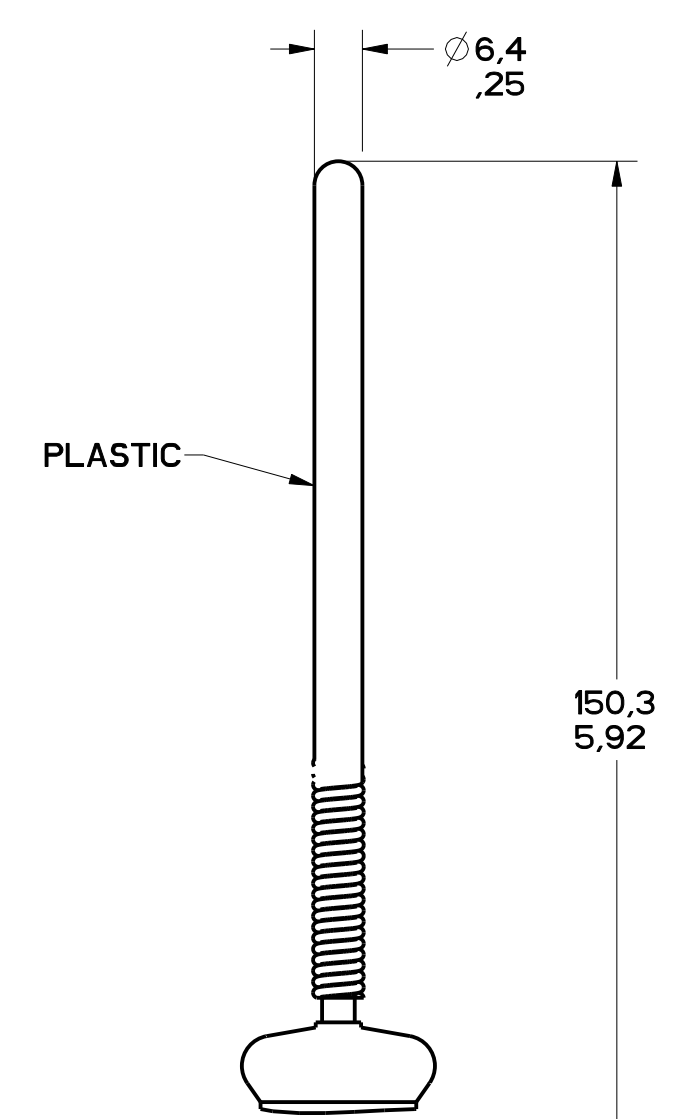


FIGURE 7A - WOBBLE HEAD, PLASTIC ACTUATOR, OTHERWISE SAME AS FIGURE 7

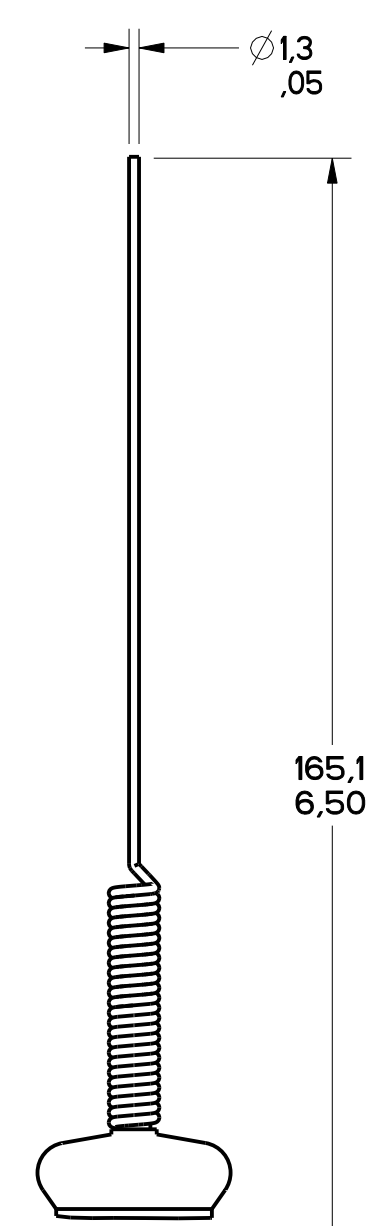


FIGURE 7B - WOBBLE HEAD, STAINLESS STEEL SPRING ACTUATOR, OTHERWISE SAME AS FIGURE 7

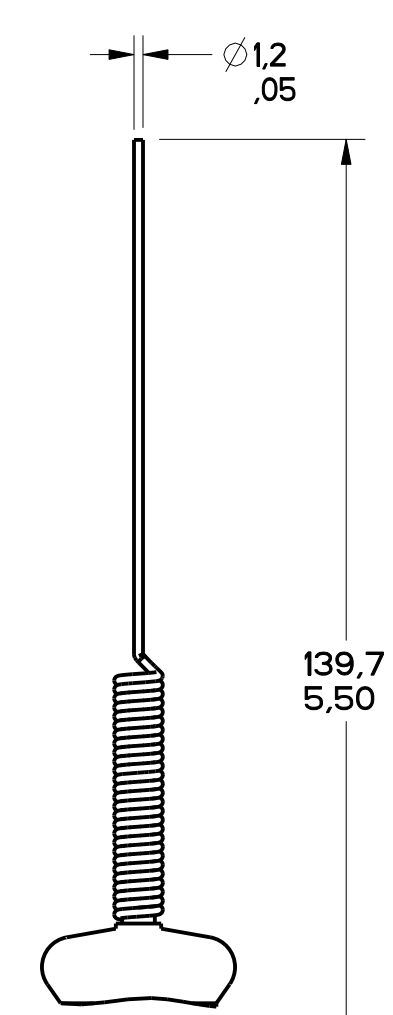


FIGURE 7C - CAT WHISKER ACTUATOR, STAINLESS STEEL SPRING, OTHERWISE SAME AS FIGURE 7

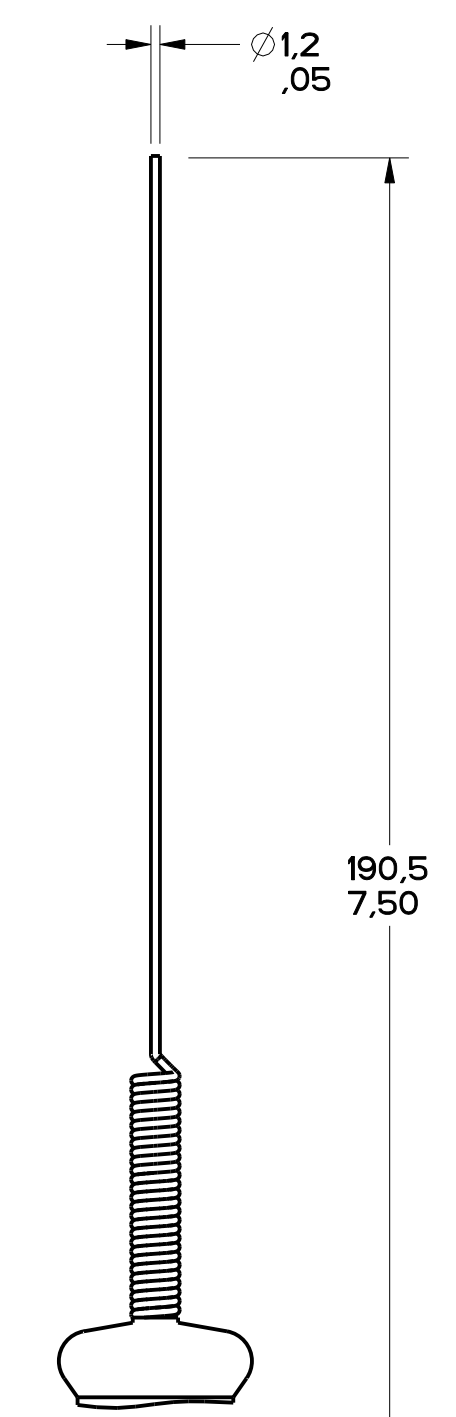


FIGURE 7D - CAT WHISKER ACTUATOR, STAINLESS STEEL SPRING, OTHERWISE SAME AS FIGURE 7

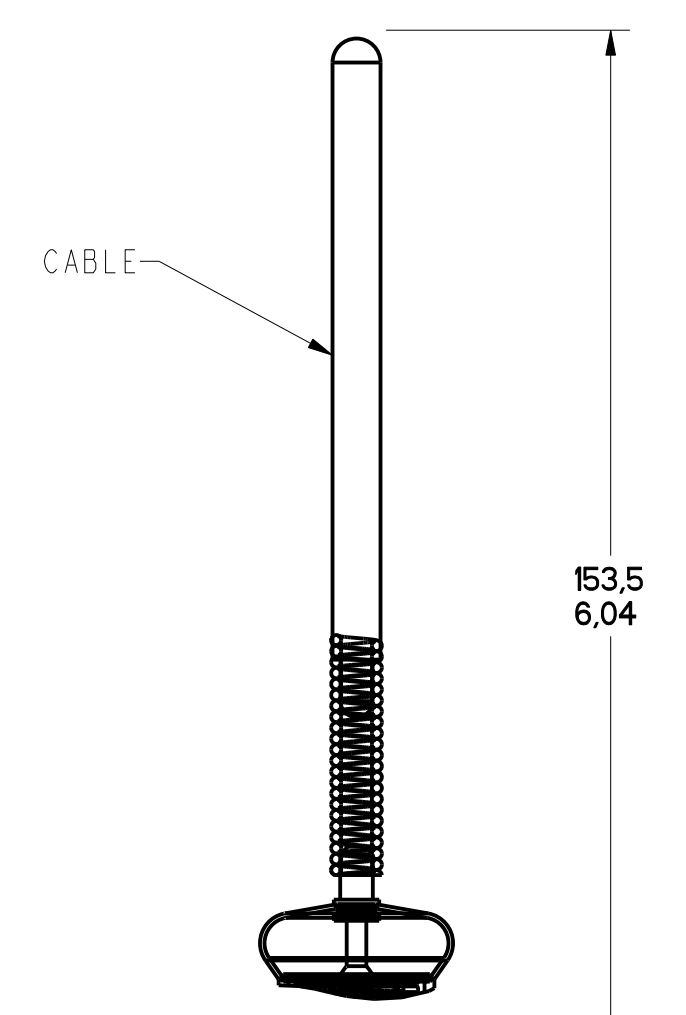


FIGURE 7E - CABLE WOBBLE ACTUATOR, OTHERWISE SAME AS FIGURE 7

MGL SERIES CHART 1  
 DRAWING NUMBER: 3 OF 13  
 RELEASE NO. PR-21557  
 ISSUE: 12  
 DATE: 07 AUG 66  
 DESIGNED BY: S. A. V. MAY 66  
 CHECKED BY: S. A. V. MAY 66  
 APPROVED BY: S. A. V. MAY 66  
 P.T.C./CAD  
 S. A. V. MAY 66

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DESIGN UNITS: <input checked="" type="checkbox"/> SI METRIC <input type="checkbox"/> US CUSTOMARY		TOLERANCES: FULL DO NOT SCALE PRINT		TOLERANCES: APPLY TO DESIGN UNITS. CONVERSIONS ARE ONLY FOR REFERENCE, UNLESS NOTED. TOLERANCES ARE:	
NO PLACES	X	12.04	X	0.01	0.01
TWO PLACES	X, XX	0.01, 0.04	X, XX	0.001, 0.01	0.001, 0.01
THREE PLACES	X, XX, XXX	0.001, 0.004	X, XX, XXX	0.0001, 0.001	0.0001, 0.001
ANGLES		±2°			
WEIGHT					



FIGURES 8, 9, 10 SIDE ROTARY HEAD, ANGULAR ACTUATION

CATALOG LISTING	CONTACT BLOCK DIAGRAM	NOMINAL TRAVELS AND RELATED TERMINALS DIFFERENTIAL TRAVEL, ** POSITIVE OPENING TO IEC 947-5	MAXIMUM OPERATING TORQUE N-m LB-IN	MAXIMUM DISCONNECT TORQUE N-m LB-IN	MAX OPERATE DEGREE/S	MIN OPERATE DEGREE/S	MAX OPERATE FREQUENCY OPS/MIN
GL**01A GL**07A	SNAP - ACTION CONTACTS SINGLE POLE 	 21-22 26° 55**° 85° 13-14 12° DIFFERENTIAL TRAVEL	$\frac{.330}{2.9}$	$\frac{.385}{3.4}$	1290	13	250
GL**03A GL**33A	SLOW ACTING BREAK BEFORE MAKE 	 21-22 26**° 38° 85° 13-14	$\frac{.330}{2.9}$	$\frac{.385}{3.4}$	1290	13	250
GL**04A GL**34A	SLOW ACTING MAKE BEFORE BREAK 	 21-22 38**° 26° 85° 13-14	$\frac{.330}{2.9}$	$\frac{.400}{3.5}$	1290	13	250
GL**05A GL**35A	SLOW ACTING 	 13-14 38° 85° 23-24	$\frac{.330}{2.9}$	$\frac{.385}{3.4}$	1290	13	250
GL**06A GL**36A	SLOW ACTING 	 11-12 26**° 85° 21-22	$\frac{.330}{2.9}$	$\frac{.385}{3.4}$	1290	13	250
GL**20A GL**22A GL**24A GL**32A	SNAP ACTION CONTACTS DOUBLE POLE 	 11-12, 13-14, 21-22, 23-24 26° 55**° 85° 12° DIFFERENTIAL TRAVEL	$\frac{.330}{2.9}$	$\frac{.385}{3.4}$	1290	13	250
GL**21A GL**25A GL**28A GL**31A	SNAP ACTION CONTACTS DOUBLE POLE SEQUENTIAL 	 11-12 27° 42° 13-14 21-22 23-24 8 DIFFERENTIAL TRAVEL	$\frac{.330}{2.9}$	N/A	1290	13	250

SIDE ROTARY HEAD, CAM ACTUATION PER EN50041, FIGURES 8 AND 9

CATALOG LISTING	CONTACT BLOCK DIAGRAM	NOMINAL TRAVELS AND RELATED TERMINALS DIFFERENTIAL TRAVEL, ** POSITIVE OPENING TO IEC 947-5 DIMENSIONS IN mm	MAXIMUM OPERATING FORCE N LB	MAXIMUM DISCONNECT FORCE N LB	MAX OPERATE VEL M/S IN/S	MIN OPERATE VEL mm/S IN/S	MAX OPERATE FREQUENCY OPS/MIN
GL**01A GL**07A	SNAP - ACTION CONTACTS SINGLE POLE 	 21-22 20 56** 13-14 12 DIFFERENTIAL TRAVEL	$\frac{9.7}{2.2}$	$\frac{11.4}{2.6}$	$\frac{.85}{33.5}$	$\frac{8.5}{.33}$	250
GL**03A GL**33A	SLOW ACTING BREAK BEFORE MAKE 	 21-22 20** 32 13-14	$\frac{9.7}{2.2}$	$\frac{11.4}{2.6}$	$\frac{.85}{33.5}$	$\frac{8.5}{.33}$	250
GL**04A GL**34A	SLOW ACTING MAKE BEFORE BREAK 	 21-22 32 20 13-14	$\frac{9.7}{2.2}$	$\frac{11.4}{2.6}$	$\frac{.85}{33.5}$	$\frac{8.5}{.33}$	250
GL**05A GL**35A	SLOW ACTING 	 13-14 32 85° 23-24	$\frac{9.7}{2.2}$	$\frac{11.4}{2.6}$	$\frac{.85}{33.5}$	$\frac{8.5}{.33}$	250
GL**06A GL**36A	SLOW ACTING 	 11-12 20** 21-22	$\frac{9.7}{2.2}$	$\frac{11.4}{2.6}$	$\frac{.85}{33.5}$	$\frac{8.5}{.33}$	250
GL**20A GL**22A GL**24A GL**32A	SNAP ACTION CONTACTS DOUBLE POLE 	 11-12, 13-14, 21-22, 23-24 20 56** 12 DIFFERENTIAL TRAVEL	$\frac{9.7}{2.2}$	$\frac{11.8}{2.7}$	$\frac{.85}{33.5}$	$\frac{8.5}{.33}$	250
GL**21A GL**25A GL**28A GL**31A	SNAP ACTION CONTACTS DOUBLE POLE SEQUENTIAL 	 11-12 20 38.5 8.5 13-14 21-22 23-24 7 DIFFERENTIAL TRAVEL	$\frac{9.7}{2.2}$	N/A	$\frac{.85}{33.5}$	$\frac{8.5}{.33}$	250
GL**26J GL**27J GL**29J GL**30J	SNAP ACTION CONTACTS DOUBLE POLE CENTER NEUTRAL 	 11-12 16 13-14 21-22 23-24 8 DIFFERENTIAL TRAVEL	$\frac{9.7}{2.2}$	N/A	$\frac{.85}{33.5}$	$\frac{8.5}{.33}$	250

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CATALOG LISTING  
MICRO SWITCH a Honeywell Division  
SWITCH, ENCLOSED  
GL SERIES CHART 1

THIRD ANGLE PROJECTION  
SCALE FULL  
DO NOT SCALE PRINT  
TOLERANCES  
APPLY TO DESIGN UNITS. CONVERSIONS ARE ONLY FOR REFERENCE. UNLESS NOTED, TOLERANCES ARE:  
DIM TOL DIM TOL  
NO PLACES X .15 .15  
ONE PLACE X .15 .15  
TWO PLACES X .15 .15  
THREE PLACES X .15 .15  
ANGLES .15 .15  
DESIGN UNITS SI METRIC US CUSTOMARY  
WEIGHT