



GLAA01D



Global Limit Switches Series GLS: Top Roller Arm, 1NC 1NO SPDT Snap Action, 0.5 in - 14NPT conduit

Actual product appearance may vary.

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.) | 9,5 N [2.10 lb] |
| Pretravel (P.T.) | 4,2 mm [0.165 in] |
| Overtravel (O.T.) | 9,0 mm [0.35 in] |
| Differential Travel (D.T.) | 1,7 mm [0.067 in] |
| Product Type | EN50041/47 Global Limit Switch |
| Actuator | Top Roller Arm |
| Lever Style | None |
| Circuitry | 1NC 1NO SPDT 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] |
| 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.) | 61,0 mm [2.40 in] |

SIDE ROTARY

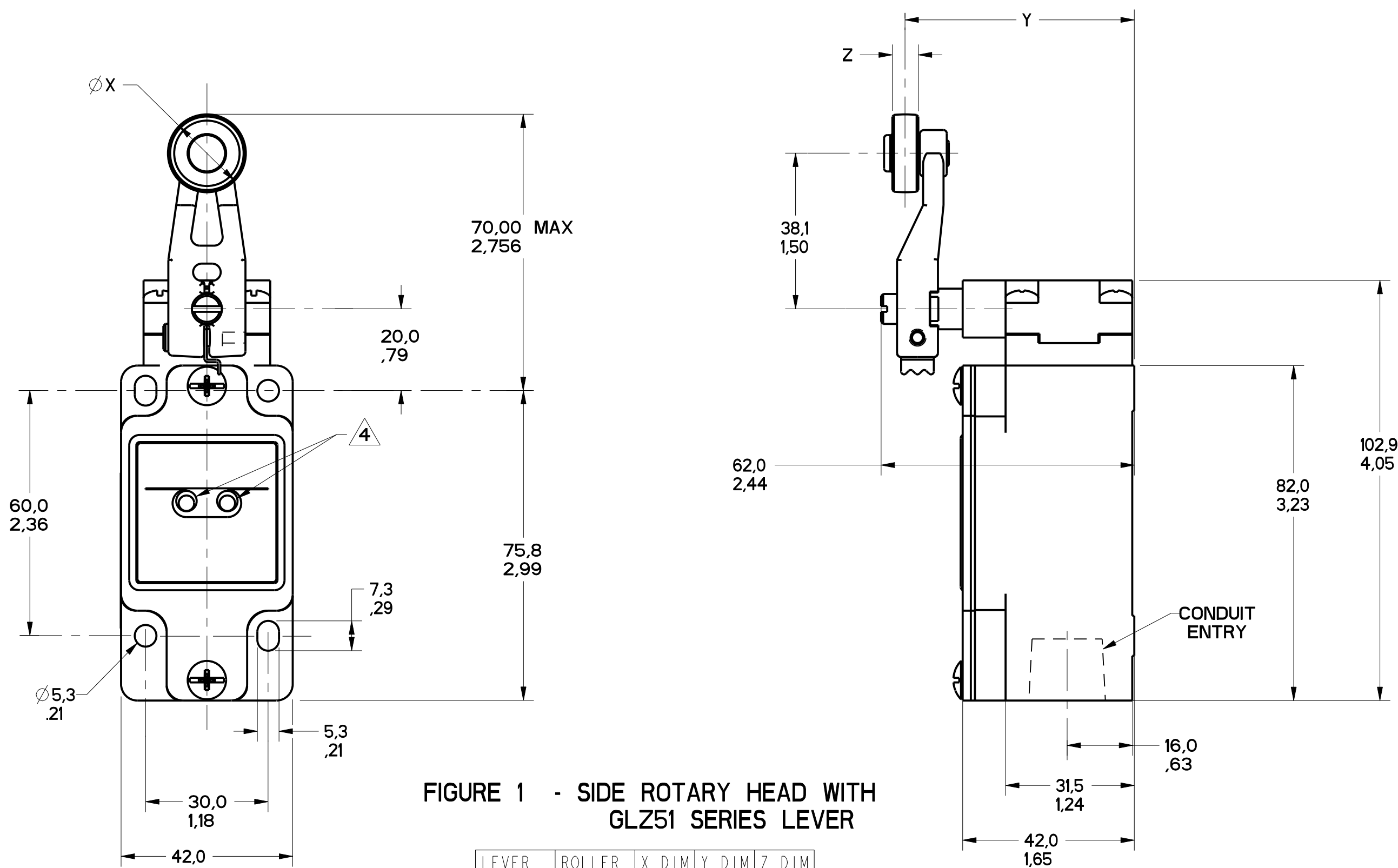


FIGURE 1 - SIDE ROTARY HEAD WITH GLZ51 SERIES LEVER

| 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

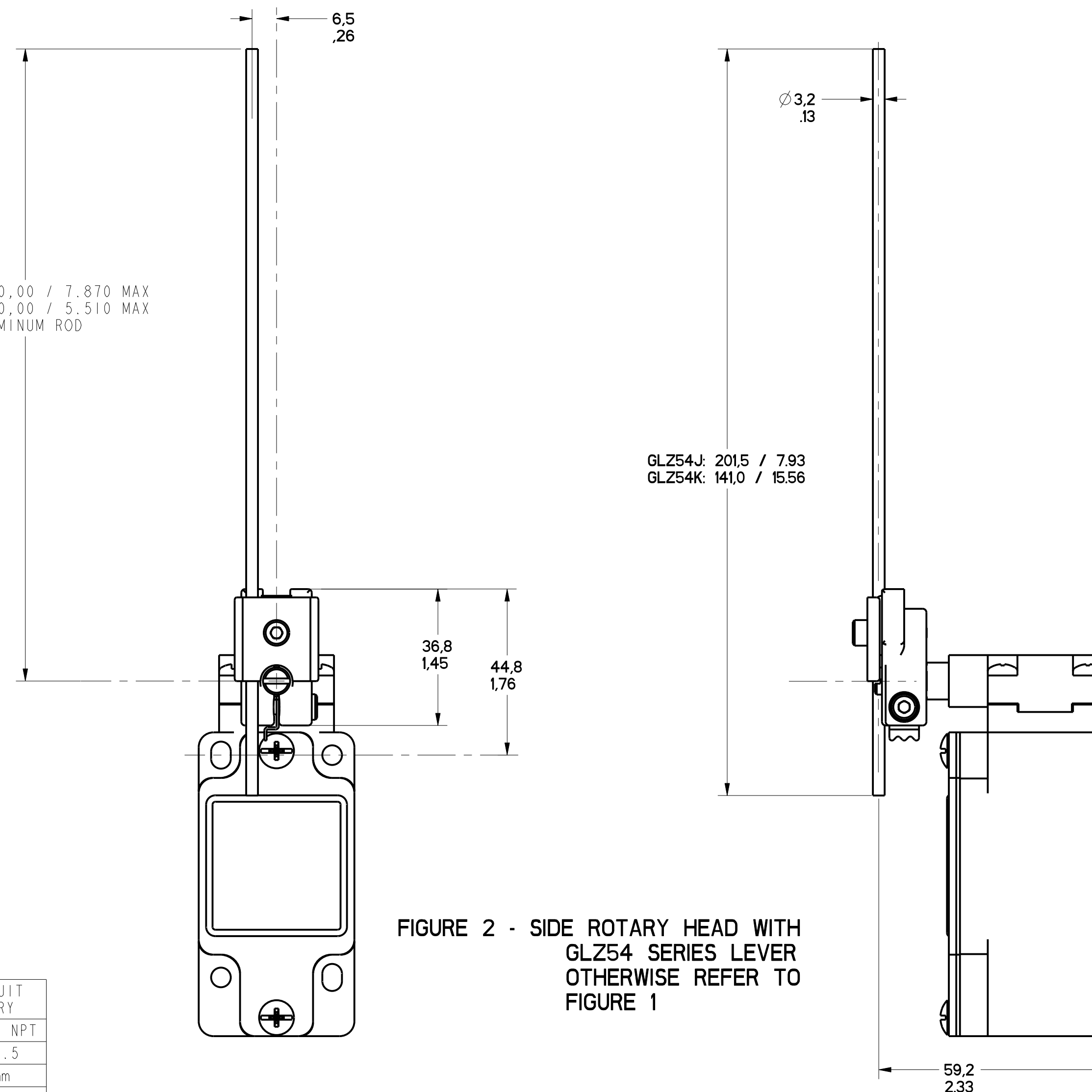


FIGURE 2 - SIDE ROTARY HEAD WITH GLZ54 SERIES LEVER OTHERWISE REFER TO FIGURE 1

| 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 | AC15 Ie | O300 Ue | DC13 Ie |
| (VOLTS) | (AMPS) | (VOLTS) | (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 |

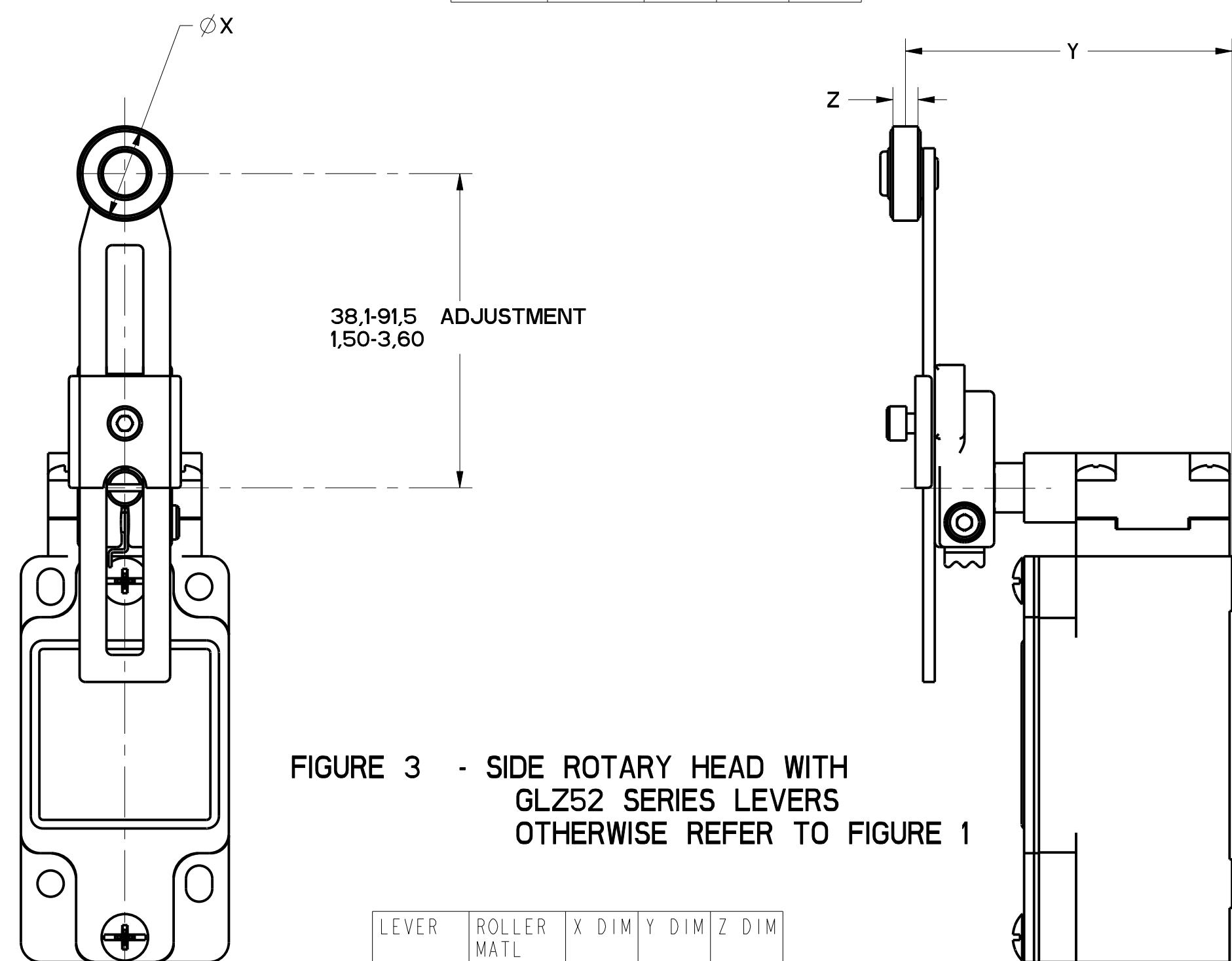


FIGURE 3 - SIDE ROTARY HEAD WITH GLZ52 SERIES LEVERS OTHERWISE REFER TO FIGURE 1

| 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
 APPROVALS: [Signatures]
 PTC/CAD: [Signature]
 S.A.V. 2/MAR/86
 DWM: 07AUG/86
 08FEB/88
 07AUG/86
 08FEB/88

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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 | 1/16 | 0.01 | 0.0005 |
| TWO PLACES | 0.01 | 1/16 | 0.01 | 0.0005 |
| THREE PLACES | 0.001 | 1/16 | 0.01 | 0.0005 |

DESIGN UNITS: SI METRIC US CUSTOMARY

WEIGHT

FIGURE 14A, TOP ROLLER LEVER HEAD WITH PIN ACTUATION

| CATALOG LISTING | CONTACT BLOCK DIAGRAM | NOMINAL TRAVELS AND RELATED TERMINALS <small>■ - CONTACT CLOSED, □ - CONTACT OPEN, ▨ - CONTACT CLOSED DIFFERENTIAL TRAVEL, ** POSITIVE OPENING TO IEC 947-5-1</small> | MAXIMUM OPERATING FORCE $\frac{N}{LB}$ | MAXIMUM DISCONNECT FORCE $\frac{N}{LB}$ | MAX OPERATE VEL $\frac{M/S}{IN/S}$ | MIN OPERATE VEL $\frac{M/S}{IN/S}$ | MAX OPERATE FREQUENCY OPS/MIN |
|--|---|--|--|---|------------------------------------|------------------------------------|-------------------------------|
| GL**01D GL**07D | SNAP - ACTION CONTACTS SINGLE POLE | | $\frac{9.5}{2.1}$ | $\frac{12}{2.7}$ | $\frac{0.17}{6.7}$ | $\frac{1.7}{.067}$ | 250 |
| GL**03D GL**33D | SLOW ACTING BREAK BEFORE MAKE | | $\frac{9.5}{2.1}$ | $\frac{12}{2.7}$ | $\frac{0.17}{6.7}$ | $\frac{1.7}{.067}$ | 250 |
| GL**04D GL**34D | SLOW ACTING MAKE BEFORE BREAK | | $\frac{9.5}{2.1}$ | $\frac{12}{2.7}$ | $\frac{0.17}{6.7}$ | $\frac{1.7}{.067}$ | 250 |
| GL**05D GL**35D | SLOW ACTING | | $\frac{9.5}{2.1}$ | $\frac{12}{2.7}$ | $\frac{0.17}{6.7}$ | $\frac{1.7}{.067}$ | 250 |
| GL**06D GL**36D | SLOW ACTING | | $\frac{9.5}{2.1}$ | $\frac{12}{2.7}$ | $\frac{0.17}{6.7}$ | $\frac{1.7}{.067}$ | 250 |
| GL**20D GL**22D GL**24D GL**32D | SNAP ACTION CONTACTS DOUBLE POLE | | $\frac{9.5}{2.1}$ | $\frac{16.4}{3.7}$ | $\frac{0.17}{6.7}$ | $\frac{1.7}{.067}$ | 250 |
| GL**21D GL**25D GL**28D GL**31D | STEP 1 STEP 2 SNAP ACTION CONTACTS DOUBLE POLE SEQUENTIAL | | $\frac{9.5}{2.1}$ | N/A | $\frac{0.17}{6.7}$ | $\frac{1.7}{.067}$ | 250 |

FIGURE 14B, TOP ROLLER LEVER HEAD WITH CAM ACTUATION

| CATALOG LISTING | CONTACT BLOCK DIAGRAM | NOMINAL TRAVELS AND RELATED TERMINALS <small>■ - CONTACT CLOSED, □ - CONTACT OPEN, ▨ - CONTACT CLOSED DIFFERENTIAL TRAVEL, ** POSITIVE OPENING TO IEC 947-5-1</small> | MAXIMUM OPERATING FORCE $\frac{N}{LB}$ | MAXIMUM DISCONNECT FORCE $\frac{N}{LB}$ | MAX OPERATE VEL $\frac{M/S}{IN/S}$ | MIN OPERATE VEL $\frac{M/S}{IN/S}$ | MAX OPERATE FREQUENCY OPS/MIN |
|--|---|--|--|---|------------------------------------|------------------------------------|-------------------------------|
| GL**01D GL**07D | SNAP - ACTION CONTACTS SINGLE POLE | | $\frac{5.5}{1.2}$ | $\frac{7.0}{1.6}$ | $\frac{0.29}{11.4}$ | $\frac{2.9}{.11}$ | 250 |
| GL**03D GL**33D | SLOW ACTING BREAK BEFORE MAKE | | $\frac{5.5}{1.2}$ | $\frac{7.0}{1.6}$ | $\frac{0.29}{11.4}$ | $\frac{2.9}{.11}$ | 250 |
| GL**04D GL**34D | SLOW ACTING MAKE BEFORE BREAK | | $\frac{5.5}{1.2}$ | $\frac{9.6}{2.2}$ | $\frac{0.29}{11.4}$ | $\frac{2.9}{.11}$ | 250 |
| GL**05D GL**35D | SLOW ACTING | | $\frac{5.5}{1.2}$ | $\frac{7.0}{1.6}$ | $\frac{0.29}{11.4}$ | $\frac{2.9}{.11}$ | 250 |
| GL**06D GL**36D | SLOW ACTING | | $\frac{5.5}{1.2}$ | $\frac{7.0}{1.6}$ | $\frac{0.29}{11.4}$ | $\frac{2.9}{.11}$ | 250 |
| GL**20D GL**22D GL**24D GL**32D | SNAP ACTION CONTACTS DOUBLE POLE | | $\frac{5.5}{1.2}$ | $\frac{7.0}{1.6}$ | $\frac{0.29}{11.4}$ | $\frac{2.9}{.11}$ | 250 |
| GL**21D GL**25D GL**28D GL**31D | STEP 1 STEP 2 SNAP ACTION CONTACTS DOUBLE POLE SEQUENTIAL | | $\frac{5.5}{1.2}$ | N/A | $\frac{0.29}{11.4}$ | $\frac{2.9}{.11}$ | 250 |

MGL SERIES CHART 1
 DRAWING NUMBER: 12
 PAGE 11 OF 13
 RELEASE NO. -
 PTC/CAD 3D
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 CHECK: SAV, 05MAY01
 CHECK: BJR, 08FEB08
 CHECK: MDM, 11OCT08
 APPROVAL: 0027986
 DATE: 20 JAN 04
 0023759
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CATALOG LISTING
GL SERIES CHART 1

THIRD ANGLE PROJECTION
SCALE: NON
DO NOT SCALE PRINT
TOLERANCES
APPLY TO DESIGN UNITS. CONVERSIONS ARE ONLY FOR REFERENCE. UNLESS NOTED, TOLERANCES ARE:

| NO. PLACES | TOL. | NO. PLACES | TOL. | NO. PLACES | TOL. |
|------------|-------|------------|--------|------------|--------|
| ONE | ±.04 | TWO | ±.01 | THREE | ±.005 |
| TWO | ±.01 | THREE | ±.005 | FOUR | ±.0025 |
| THREE | ±.005 | FOUR | ±.0025 | FIVE | ±.0015 |

 ANGLE: ±2°
 DESIGN UNITS: SI METRIC US CUSTOMARY
 WEIGHT: