Honeywell

MICRO SWITCH Miniature Industrial Limit Switch

GLL Series

002310

Issue 4

Datasheet

DESCRIPTION

Honeywell provides a wide selection of industrial limit switches for machinery and equipment on indoor and outdoor applications. When the solution for the application is a small global limit switch, Honeywell offers the GLL Series miniature industrial limit switch. The GLL Series switches are designed with global certifications for worldwide use. With an integral contact block, the design also provides a double-insulated thermoplastic housing and conforms to the EN50047 mounting pattern with IP and NEMA environmental sealing. A wide variety of linear and rotary actuators is available as well as contact block options to satisfy many applications. All normally closed contacts are positive opening .

VALUE TO CUSTOMERS

- Designed to EN50047 standards
- AC15, A600 and DC13, Q300 control circuit electrical ratings for world-wide acceptance
- Wide range of actuators and circuitry options in same package
- CCC, CE, CSA, and cULus certifications for global acceptance

FEATURES

- Ten different actuator heads, five different contact options, and two different conduits
- Designed to EN50047 standard
- Double insulated plastic housing
- Integral threaded conduit of 0.5 NPT or 20 mm
- Positive opening normally closed contacts to IEC 60947-5-1-3
- Certified for global applications; CE, cULus, CSA, CCC
- Galvanically isolated poles or throws [Zb] within contact block
- Double break snap action or slow action contacts
- Hinge cover with single fastener for easy wiring access
- IP66 environmental sealing for indoor or outdoor applications
- ROHS compliant

POTENTIAL INDUSTRIAL APPLICATIONS

- Aerial platforms/Lifts
- Elevators/Escalators
- Industrial Doors/Gates
- Packaging equipment

DIFFERENTIATION

- Double insulated thermoplastic limit switch with integral contact block
- Cost effective EN50047 type limit switch with world-wide availability

PORTFOLIO

The GLL Series global limit switches are a segment of the Honeywell industrial global limit switch offering. The global limit switch products also include the GLA Series, the miniature GLC, GLD, and GLE Series, the NGC Series, and SZL-VL Series. In addition to the global limit switch series, Honeywell provides a comprehensive line of medium duty industrial limit switches (CE Series, E6/V6 Series, LS Series) and heavy-duty limit switches (HDLS Series).

MICRO SWITCH Miniature Industrial Limit Switch, GLL Series

Table 1. Specifications

Characteristic	Parameter
Description	EN50047 industrial global limit switch
Certifications	CE, CCC, cULus, CSA
Conforming to standards	CE [EN60947-5-1]; CCC [GB 14048.5]; UL & cUL [UL508, File E37138]; CSA B44.1-04/ ASME-A17.5-2004
Housing material	Thermoplastic reinforced with glass fiber
Actuators	Side rotary with fixed levers, side rotary with adjustable levers, side rotary with adjustable rod, top pin plunger, top roller plunger, top horizontal roller lever, top vertical roller lever
Conduit	0.5-14 NPT, 20 mm
Contact options*	1NC-1NO snap action, 1NC-1NO slow action break before make [BBM], 1NC-1NO slow action make before break [MBB], 2NC slow action. Poles or throws are electrically isolated [Zb]
Contact material	Silver alloy
Utilization category	AC-15, A600; DC-13, Q300
Rated operational voltage [Ue]	600 Vac, 250 Vdc
Rated operational current [Ie]	1.2 A, 0.27 A
Thermal current [Ith]	10 A
Rated insulation voltage [Ui]	600 V
Rated impulse withstand voltage (Uimp)	2500 V
Short Circuit Protective Device [SCPD] type & rating	Class J fuse, rated 10A, 600V
Sealing	IP66; NEMA 1, 12, 13
Operating temperature	-10 °C to 80 °C [14 °F to 176 °F]
Mechanical life	Up to 5 million operations
Vibration [w/o actuator]	10 g per IEC 60068-2-6
Shock [w/o actuator]	50 g per IEC 60068-2-27

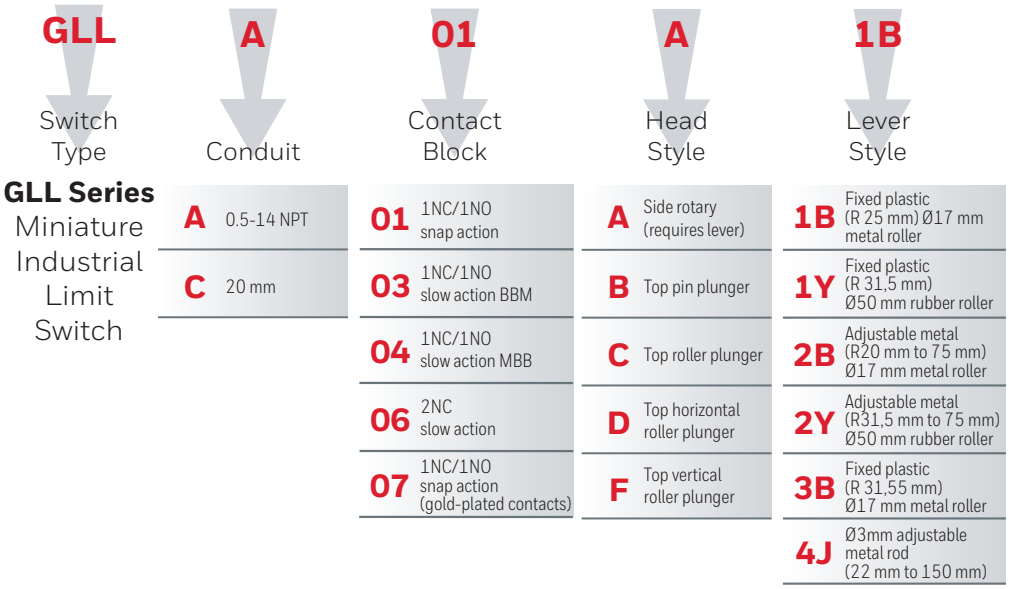
* All normally closed (NC) contacts are positive opening.

Table 2. Electrical Specifications

ac		dc	
A600 Ue Volts	**AC-15 Ie Amps**	**Q300 Ue Volts**	**DC-13 Ie Amps**
120	6	125	0.55
240	3	250	0.27
380	1.9		
480	1.5		
500	1.4		
600	1.2		

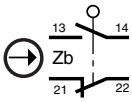
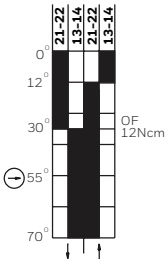
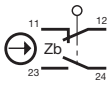
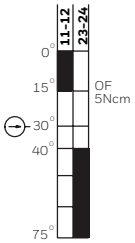
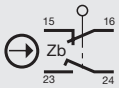
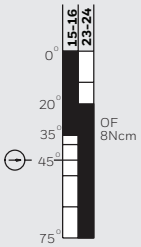
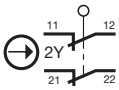
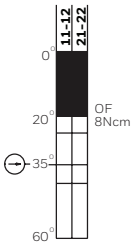
MICRO SWITCH Miniature Industrial Limit Switch, GLL Series

Figure 1. Product Nomenclature



MICRO SWITCH GLL SERIES ORDER GUIDE/RECOMMENDED LISTINGS

Table 3. Side Rotary 25 mm lever with Ø17 mm metal roller

	Contacts	Contact Type	Contact Material	Operating Torque max. Ncm [in-lb]	Bar Chart[1]	0.5-14 NPT Conduit	20 mm Conduit
	1NC-1NO	Snap action 	silver	12 [1.06]		**GLLA01A1B**	**GLLC01A1B**
	1NC-1NO		gold-plated	12 [1.06]		**GLLA07A1B**	**-**
	1NC-1NO	BBM, slow action 	silver	5 [0.44]		**GLLA03A1B**	**GLLC03A1B**
	1NC-1NO	MBB, slow action 	silver	8 [0.71]		**GLLA04A1B**	**GLLC04A1B**
	2NC	Slow action 	silver	8 [0.71]		**GLLA06A1B**	**GLLC06A1B**

[1]Contact closed ■; Contact open □. *Positive opening occurs.

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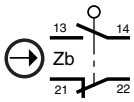
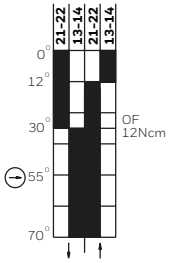
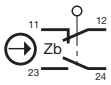
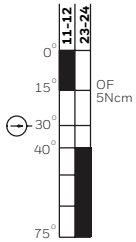
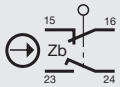
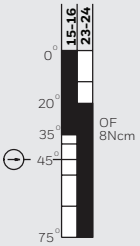
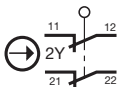
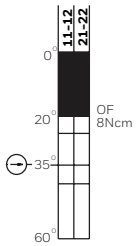
Table 4. Side Rotary 31,5 mm Lever with Ø17 mm Metal Roller

	Contacts	Contact Type	Contact Material	Operating Torque max. Ncm [in-lb]	Bar Chart[1]	0.5-14 NPT Conduit	20 mm Conduit
	1NC-1NO	Snap action 	silver	12 [1.06]		**GLLA01A3B**	-
	1NC-1NO		gold-plated	12 [1.06]		**GLLA07A3B**	-
	1NC-1NO	BBM, slow action 	silver	5 [0.44]		**GLLA03A3B**	**GLLC03A3B**
	1NC-1NO	MBB, slow action 	silver	8 [0.71]		**GLLA04A3B**	**GLLC04A3B**
	2NC	Slow action 	silver	8 [0.71]		**GLLA06A3B**	**GLLC06A3B**

[1]Contact closed ■; Contact open □. *Positive opening occurs.

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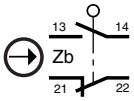
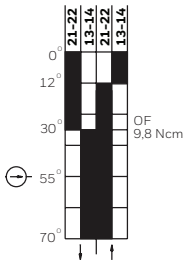
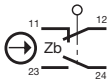
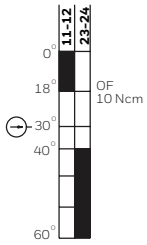
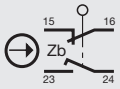
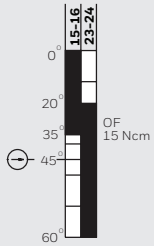
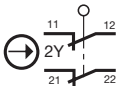
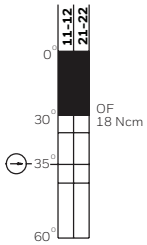
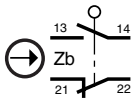
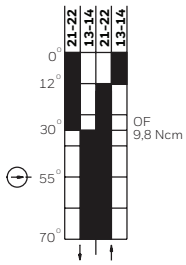
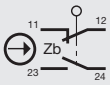
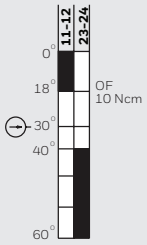
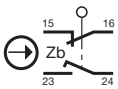
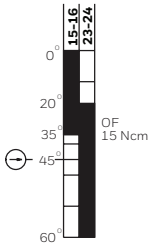
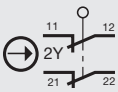
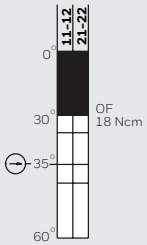
Table 5. Side Rotary, 20 mm to 75 mm Adjustable Lever with Ø17 mm Metal Roller

	Contacts	Contact Type	Contact Material	Operating Torque max. Ncm [in-lb]	Bar Chart[1]	0.5-14 NPT Conduit	20 mm Conduit
	1NC-1NO	Snap action 	silver	9.8 [0.87]		**GLLA01A2B**	**GLLC01A2B**
	1NC-1NO		gold-plated	9.8 [0.87]		**GLLA07A2B**	**-**
	1NC-1NO	BBM, slow action 	silver	10 [0.88]		**GLLA03A2B**	**GLLC03A2B**
	1NC-1NO	MBB, slow action 	silver	15.0 [1.33]		**GLLA04A2B**	**GLLC04A2B**
	2NC	Slow action 	silver	15.0 [1.33]		**GLLA06A2B**	**GLLC06A2B**

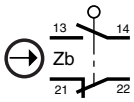
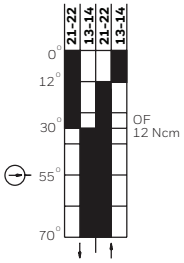
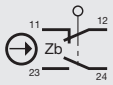
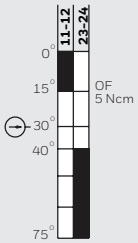
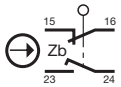
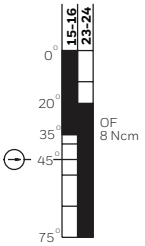
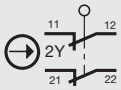
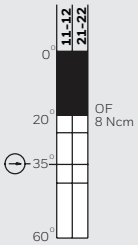
[1]Contact closed ■; Contact open □. *Positive opening occurs.

Table 6. Side Rotary, 31,5 mm Lever with Ø50 mm Rubber Roller

	Contacts	Contact Type	Contact Material	Operating Torque max. Ncm [in-lb]	Bar Chart[1]	0.5-14 NPT Conduit	20 mm Conduit
	1NC-1NO	Snap action 	silver	9,8 [0.87]		**GLLA01A1Y**	**GLLC01A1Y**
	1NC-1NO	BBM, slow action 	silver	10 [0.88]		**GLLA03A1Y**	**GLLC03A1Y**
	1NC-1NO	MBB, slow action 	silver	15 [1.33]		**GLLA04A1Y**	**GLLC04A1Y**
	2NC	Slow action 	silver	18 [1.59]		**GLLA06A1Y**	**GLLC06A1Y**

[1]Contact closed ■; Contact open □. *Positive opening occurs.

Table 7. Side Rotary, 31,5 mm to 75 mm Adjustable Lever with Ø50 mm Rubber Roller

	Contacts	Contact Type	Contact Material	Operating Torque max. Ncm [in-lb]	Bar Chart[1]	0.5-14 NPT Conduit	20 mm Conduit
	1NC-1NO	Snap action 	silver	12 [1.06]		**GLLA01A2Y**	**GLLC01A2Y**
	1NC-1NO	BBM, slow action 	silver	5 [0.44]		**GLLA03A2Y**	**GLLC03A2Y**
	1NC-1NO	MBB, slow action 	silver	8 [0.71]		**GLLA04A2Y**	**GLLC04A2Y**
	2NC	Slow action 	silver	8 [0.71]		**GLLA06A2Y**	**GLLC06A2Y**

[1]Contact closed ■; Contact open □. *Positive opening occurs.

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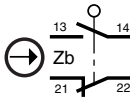
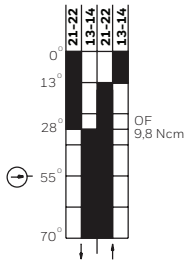
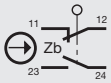
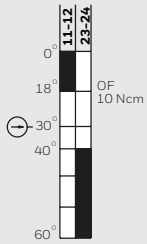
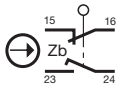
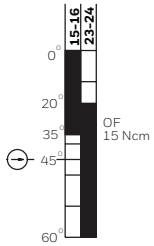
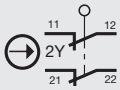
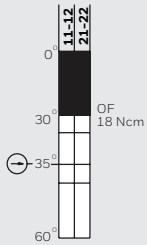
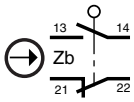
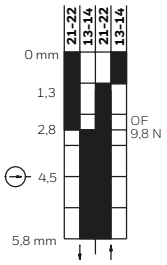
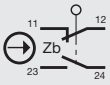
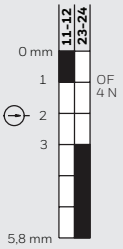
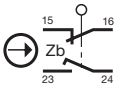
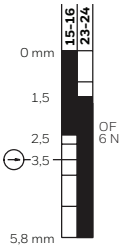
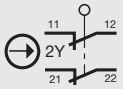
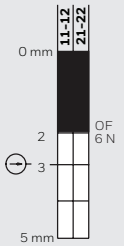
Table 8. Side Rotary, 22 mm to 150 mm with Ø3 mm Adjustable Metal Rod

	Contacts	Contact Type	Contact Material	Operating Torque max. Ncm [in-lb]	Bar Chart[1]	0.5-14 NPT Conduit	20 mm Conduit
	1NC-1NO	Snap action 	silver	9,8 [0.87]		**GLLA01A4J**	**GLLC01A4J**
	1NC-1NO	BBM, slow action 	silver	10 [0.88]		**GLLA03A4J**	**GLLC03A4J**
	1NC-1NO	MBB, slow action 	silver	15 [1.33]		**GLLA04A4J**	**GLLC04A4J**
	2NC	Slow action 	silver	18 [1.59]		**GLLA06A4J**	**GLLC06A4J**

[1]Contact closed ■; Contact open □. *Positive opening occurs.

MICRO SWITCH Miniature Industrial Limit Switch, GLL Series

Table 9. Top Pin Plunger

	Contacts	Contact Type	Contact Material	Operating Force max. N [lb]	Bar Chart[1]	0.5-14 NPT Conduit	20 mm Conduit
	1NC-1NO	Snap action 	silver	9,8 [2.22]		**GLLA01B**	**GLLC01B**
	1NC-1NO	BBM, slow action 	silver	4 [0.9]		**GLLA03B**	**GLLC03B**
	1NC-1NO	MBB, slow action 	silver	6 [1.35]		**GLLA04B**	**GLLC04B**
	2NC	Slow action 	silver	6 [1.35]		**GLLA06B**	**GLLC06B**

[1]Contact closed ■; Contact open □. *Positive opening occurs.

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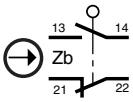
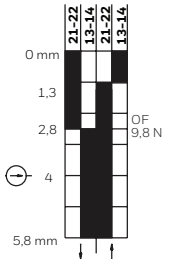
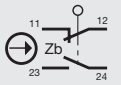
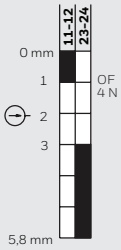
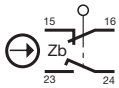
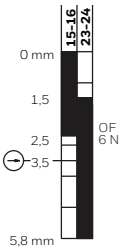
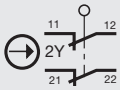
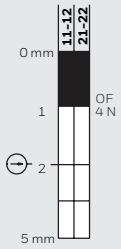
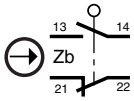
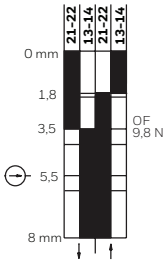
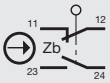
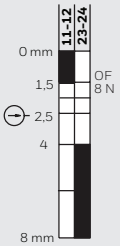
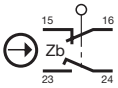
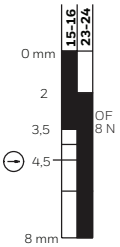
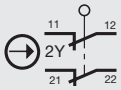
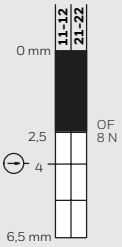
Table 10. Top Roller Plunger

	Contacts	Contact Type	Contact Material	Operating Force max. N [lb]	Bar Chart[1]	0.5-14 NPT Conduit	20 mm Conduit
	1NC-1NO	Snap action 	silver	9,8 [2.22]		**GLLA01C**	**GLLA01C**
	1NC-1NO	BBM, slow action 	silver	4 [0.9]		**GLLA03C**	**GLLA03C**
	1NC-1NO	MBB, slow action 	silver	6 [1.35]		**GLLA04C**	**GLLC04C**
	2NC	Slow action 	silver	4 [0.9]		**GLLA06C**	**GLLC06C**

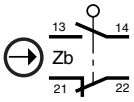
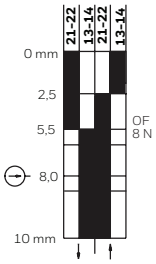
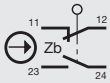
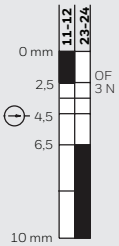
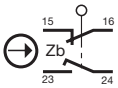
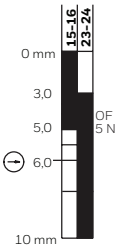
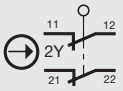
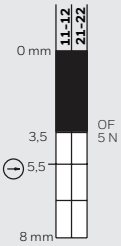
[1]Contact closed ■; Contact open □. *Positive opening occurs.

Table 11. Top Horizontal Roller Lever

	Contacts	Contact Type	Contact Material	Operating Force max. N [lb]	Bar Chart[1]	0.5-14 NPT Conduit	20 mm Conduit
	1NC-1NO	Snap action 	silver	9,8 [2.22]		**GLLA01D**	**GLLC01D**
	1NC-1NO	BBM, slow action 	silver	8 [1.8]		**GLLA03D**	**GLLC03D**
	1NC-1NO	MBB, slow action 	silver	8 [1.8]		**GLLA04D**	**GLLC04D**
	2NC	Slow action 	silver	8 [1.8]		**GLLA06D**	**GLLC06D**

[1]Contact closed ■; Contact open □. *Positive opening occurs.

Table 12. Top Vertical Roller Lever

	Contacts	Contact Type	Contact Material	Operating Force max. N [lb]	Bar Chart[1]	0.5-14 NPT Conduit	20 mm Conduit
	1NC-1NO	Snap action 	silver	8 [1.8]		**GLLA01F**	**GLLC01F**
	1NC-1NO	BBM, slow action 	silver	3 [0.67]		**GLLA03F**	**GLLC03F**
	1NC-1NO	MBB, slow action 	silver	5 [1.12]		**GLLA04F**	**GLLC04F**
	2NC	Slow action 	silver	5 [1.12]		**GLLA06F**	**GLLC06F**

[1]Contact closed ■; Contact open □. *Positive opening occurs.

Figure 2. GLL Side Rotary (A1B) with Fixed Lever Dimensions

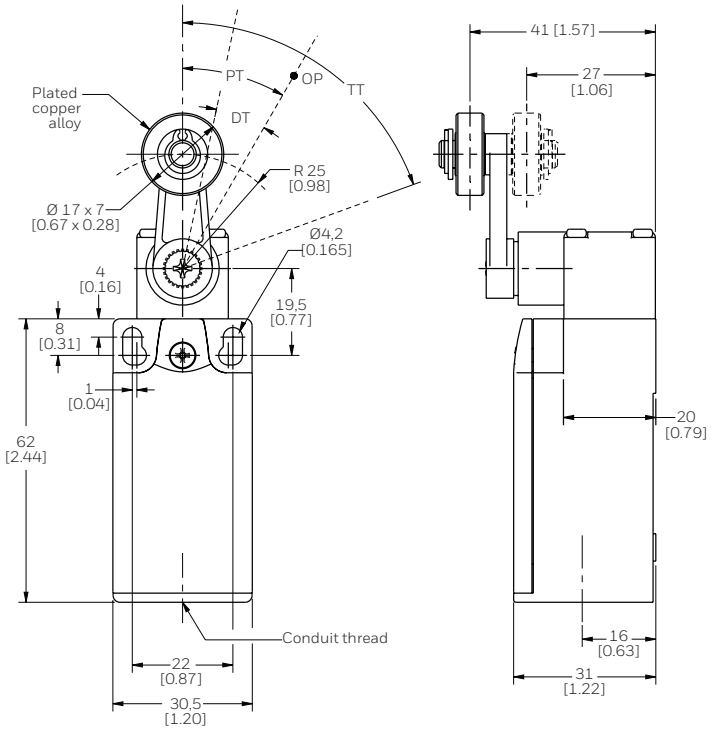


Figure 3. GLL Side Rotary (A3B) with Fixed Lever Dimensions

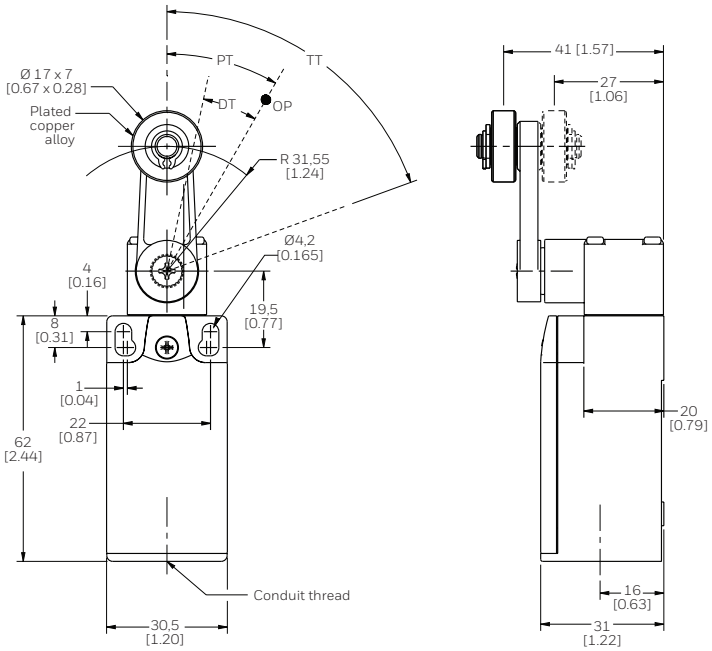


Figure 4. GLL Side Rotary (A2B) with Adj. Lever Dimensions

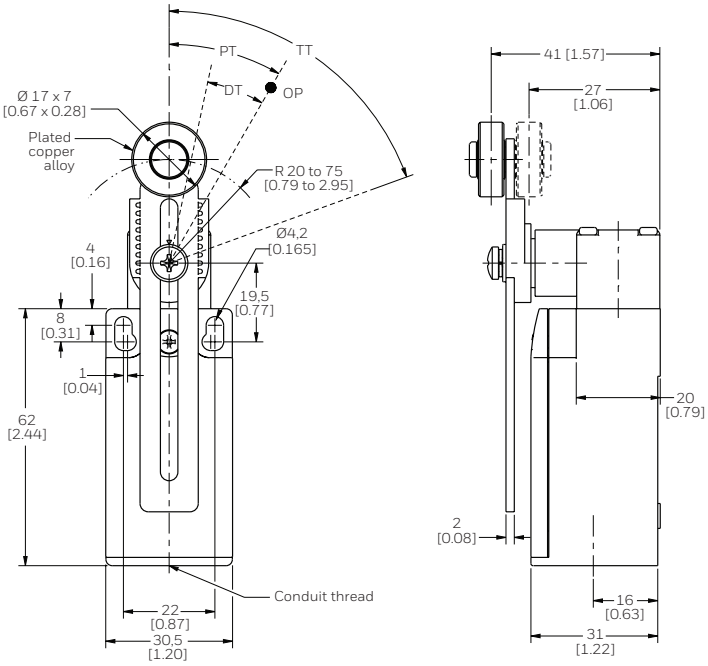


Figure 5. GLL Side Rotary (A1Y) with Roller Lever Dimensions

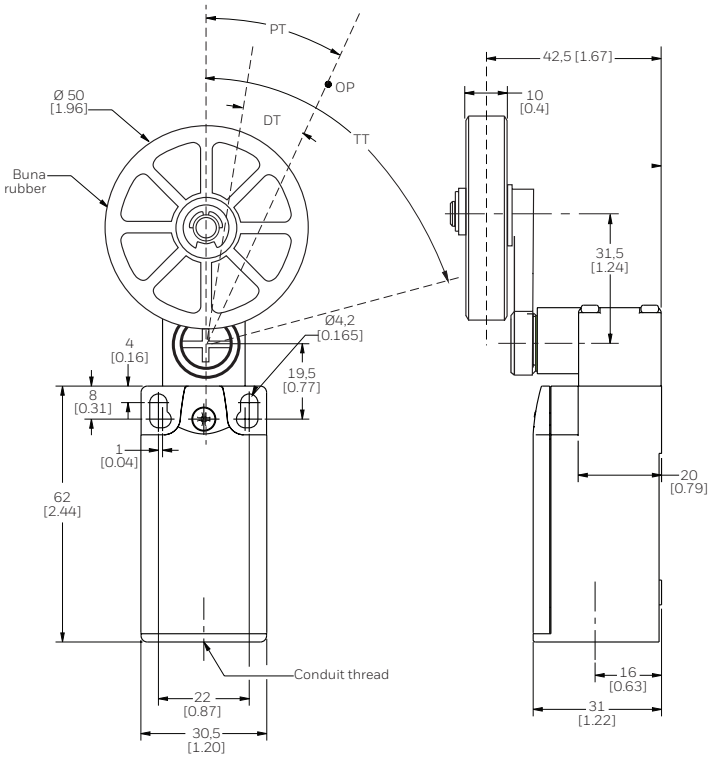


Figure 6. GLL Side Rotary (A2Y) with Adj. Roller Lever Dimensions

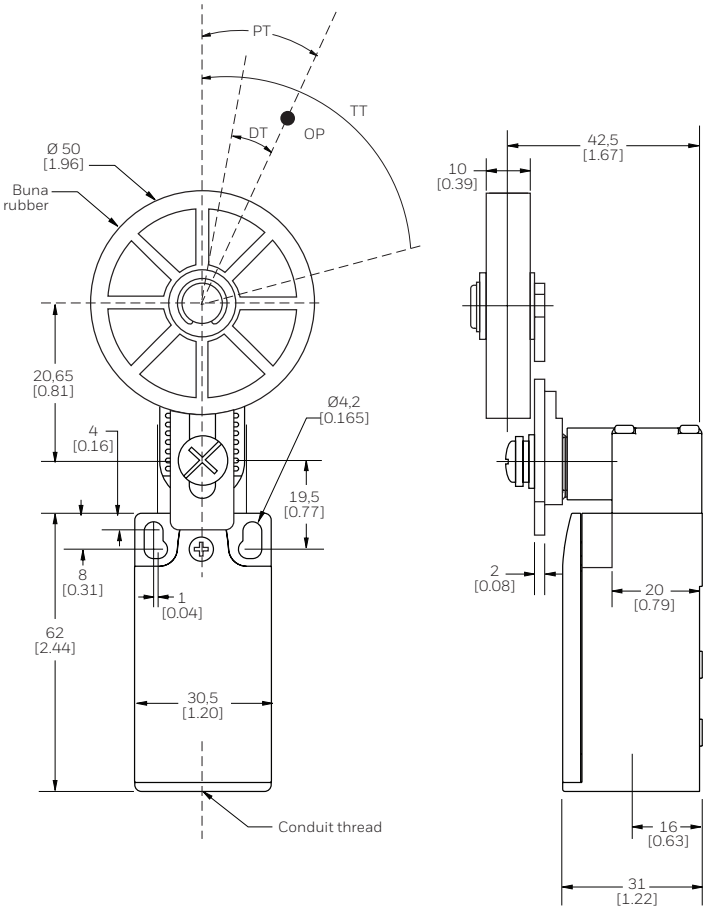


Figure 7. GLL Side Rotary (A4J) with Adj. Rod Lever Dimensions

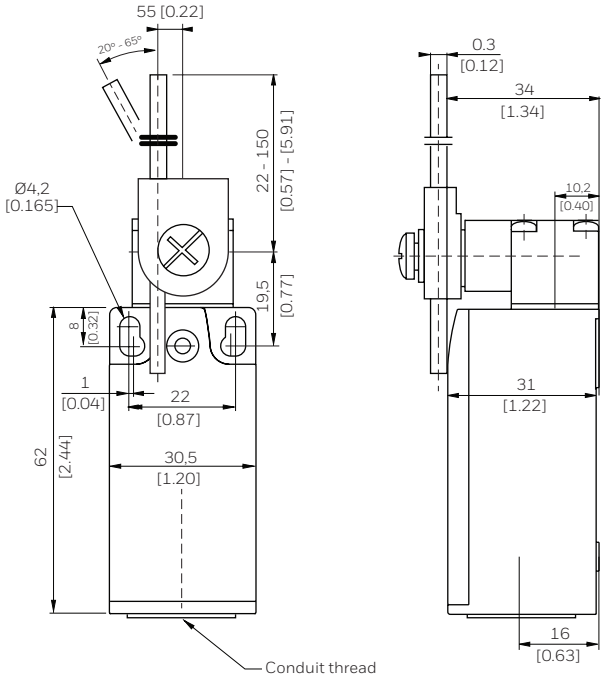


Figure 8. GLL Top Pin Plunger Dimensions

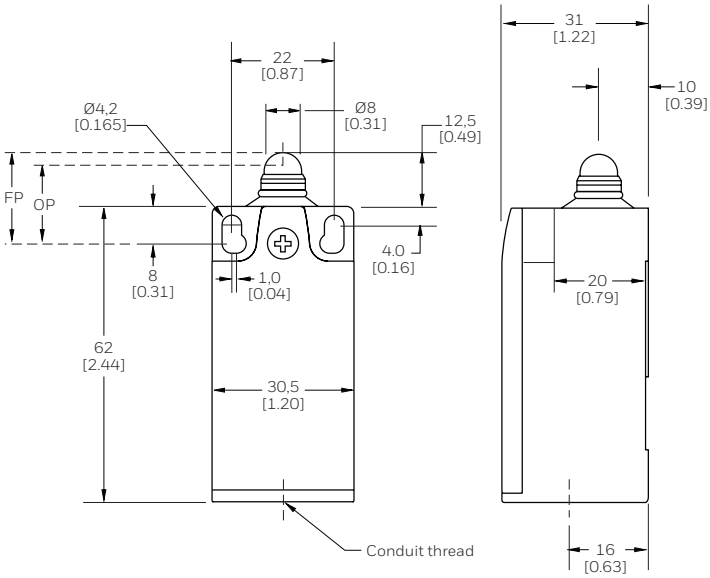


Figure 8. GLL Top Roller Plunger Dimensions

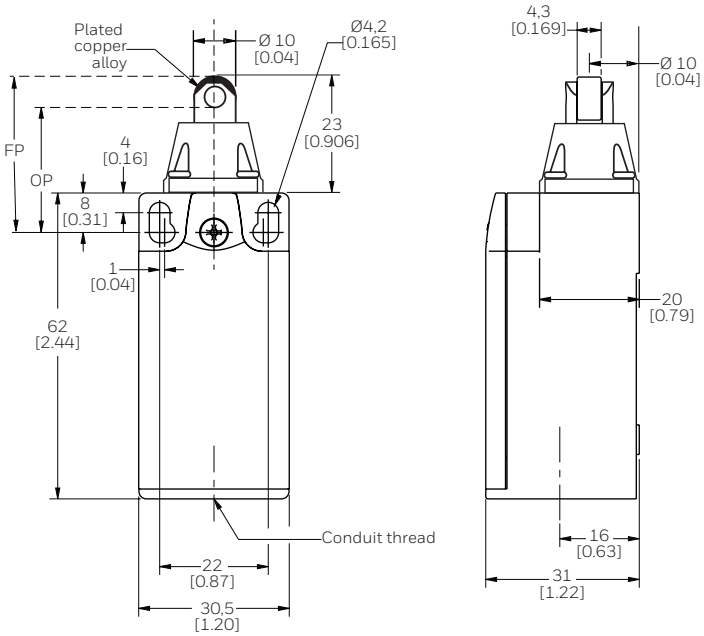


Figure 10. GLL Top Horizontal Roller Lever Dimensions

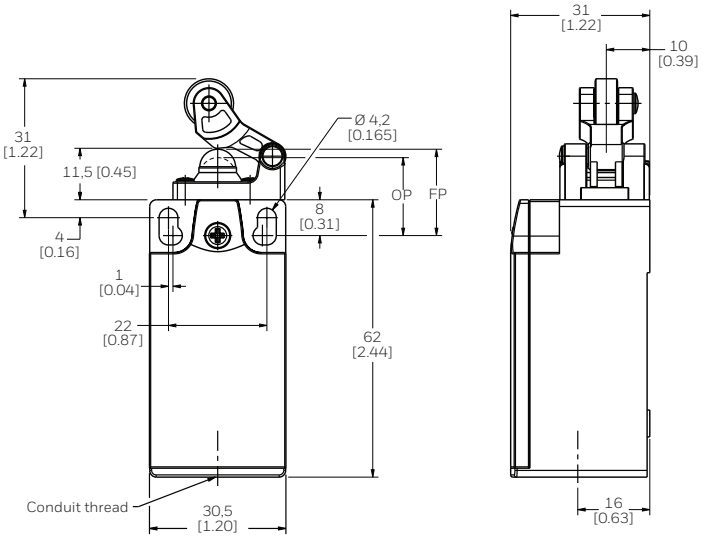
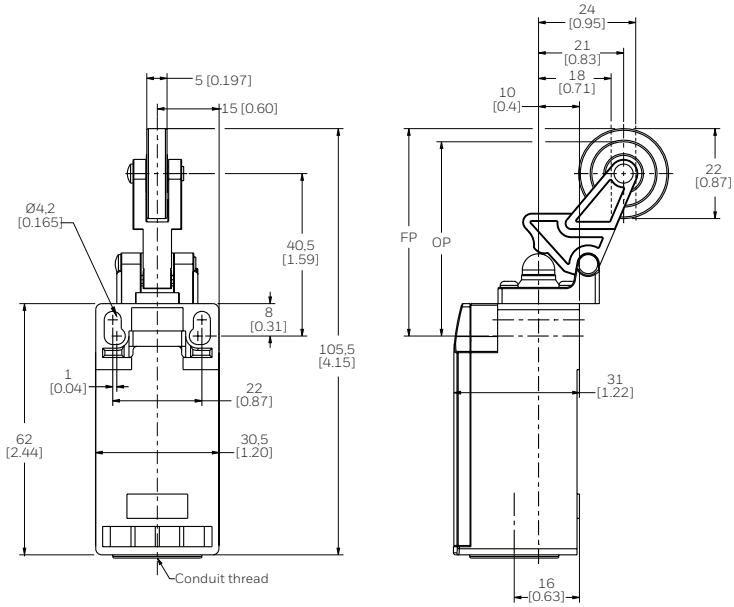


Figure 11. GLL Top Vertical Roller Lever Dimensions



ADDITIONAL MATERIALS

The following associated literature is available on the Honeywell web site at sensing.honeywell.com:

- Product installation instructions
- Product range guide

⚠ WARNING
PERSONAL INJURY

DO NOT USE these products as safety or emergency stop devices or in any other application where failure of the product could result in personal injury.

Failure to comply with these instructions could result in death or serious injury.

⚠ WARNING
MISUSE OF DOCUMENTATION

- The information presented in this product sheet is for reference only. Do not use this document as a product installation guide.
- Complete installation, operation, and maintenance information is provided in the instructions supplied with each product.

Failure to comply with these instructions could result in death or serious injury.

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