Honeywell

Honeywell Sensing and Control

GLAA01B

Actual product appearance may vary.

Global Limit Switches Series GLS: Top Plunger, 1NC 1NO SPDT 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.)	16,0 N [3.60 lb]
Pretravel (P.T.)	2,5 mm [0.10 in]
Overtravel (O.T.)	4,5 mm [0.18 in]
Differential Travel (D.T.)	0,9 mm [0.035 in]
Product Type	EN50041/47 Global Limit Switch
Actuator	Top Plunger
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.)	35,0 mm [1.38 in]

SIDE ROTARY

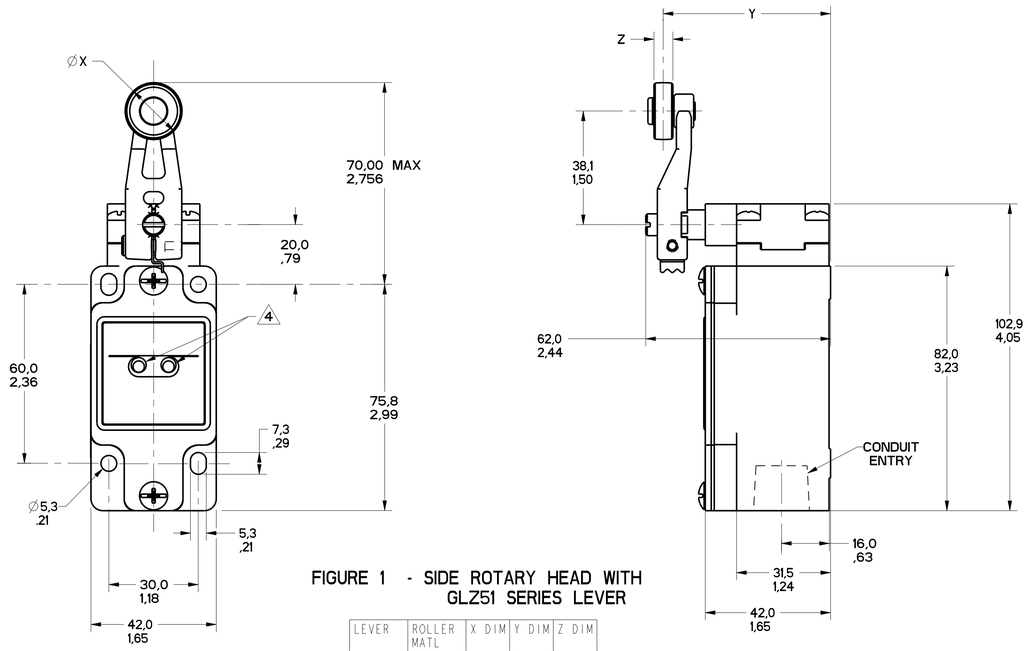

FIGURE 1 - SIDE ROTARY HEAD WITH GLZ51 SERIES LEVER

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

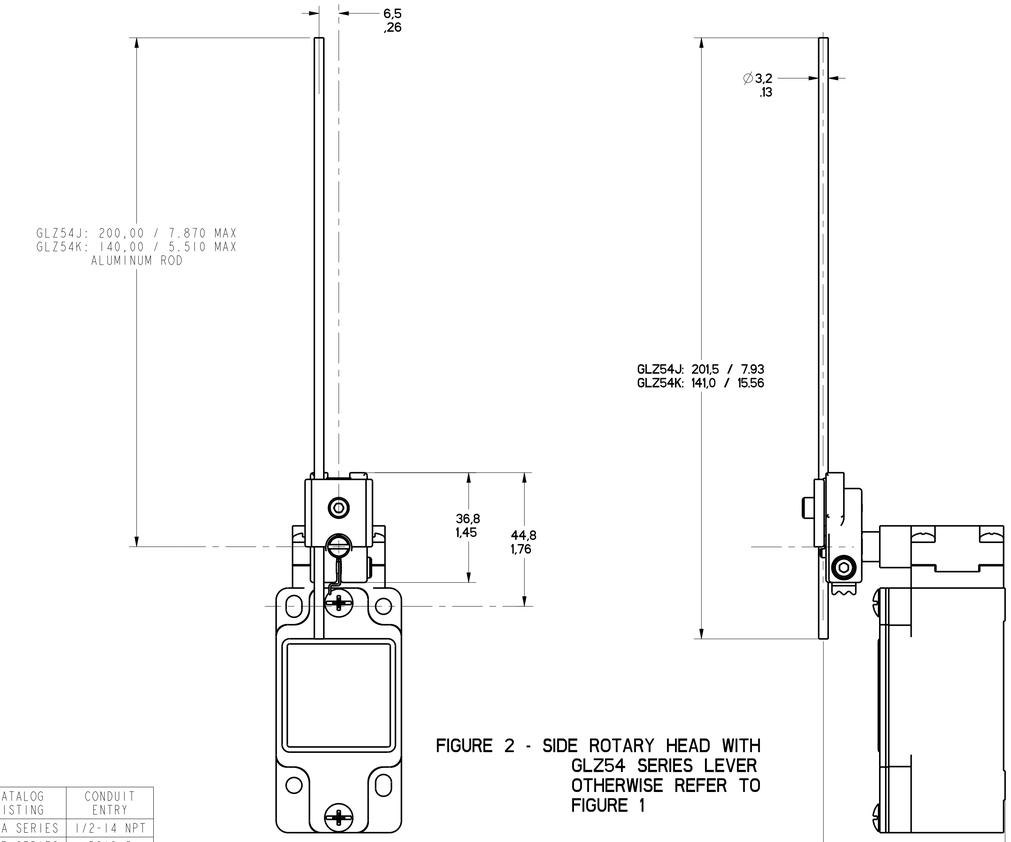

FIGURE 2 - SIDE ROTARY HEAD WITH GLZ54 SERIES LEVER OTHERWISE REFER TO FIGURE 1

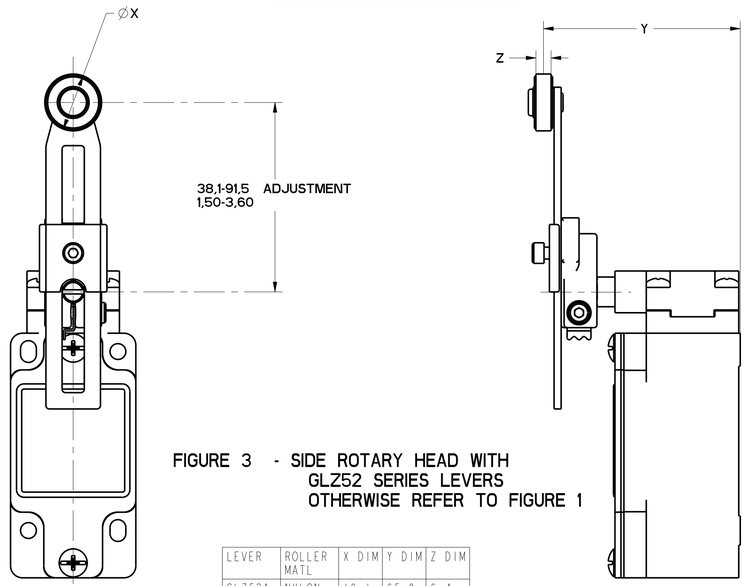

FIGURE 3 - SIDE ROTARY HEAD WITH GLZ52 SERIES LEVERS OTHERWISE REFER TO FIGURE 1

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

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 5 8			
AC		DC	
A600 Ue	AC15 Ie	Q300 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

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

NOTES
1 - HEADS MAY BE INDEXED IN 90° INCREMENTS
2 - LEVERS MAY BE KEYED TO THE SHAFT AT 90° INCREMENTS. THEY MAY ALSO BE ATTACHED, BUT NOT KEYED ANYWHERE ON THE SHAFT.
3 - FOR ADDITIONAL LEVERS SEE "M" DRAWING CHART GLZ5
4 - 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.
5 - THE MAXIMUM VOLTAGE, Ve OF GLF AND GLH SERIES PRODUCTS IS THE MAXIMUM RATED VOLTAGE OF INDICATION LIGHTS
6 - FREE POSITION, OPERATE POINT, OVERTRAVEL AND PRETRAVEL ALL TO EN50041
7 - CAM TRAVEL FOR FIG 9 ONLY APPLIES WHEN LEVER IS ADJUSTED TO 38,1 / 1.50
8 - THE MAXIMUM VOLTAGE, Ve OF "06" AND "36" BASIC SWITCH CODE IS 500V (A500)
9 - 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

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 ±

	DIM mm	TOL mm±	DIM in	TOL inch±
NO PLACES	X	,09	X.X	0.04/.03
ONE PLACE	X.X	0.40/0.16	X.XX	0.16/.005
TWO PLACES	X.XX	0.15/.006	X.XXX	0.127/.005
THREE PLACES				
ANGLES		±2°		

DESIGN UNITS SI METRIC ☒ US CUSTOMARY ☐
WEIGHT

ANSI Y14.5M-1982 APPLIES

PTC/CAD DRAWN S A V 27MAR96 | GL SERIES CHART 1 | M | PAGE 1 OF 13 | RELEASE NO. PR-20782 | REPLACES | DRAWING NUMBER 12 | ISSUE | MDM CHECK | REVISIONS A PR 21603 M 27 MAR 96 B PR 22833 GLH 3 JUL 97 C CO 93780 KEO 4NOV98 D 200541 TSM 8JUN00 E 202747 JKN 14FEB01 F 0000401 GLH 7JUN03 G 0002986 RM 20JAN04 H 0023759 RKP 07AUG06 J 0037216 RM 08FEB08 CHECK DVM 07AUG06 CHECK BLR 08FEB08

FIGURES 11, PIN PLUNGER HEAD, LINEAR ACTUATION

CATALOG LISTING	CONTACT BLOCK DIAGRAM	NOMINAL TRAVELS AND RELATED TERMINALS (CONTACT CLOSED, CONTACT OPEN, - CONTACT CLOSED DIFFERENTIAL TRAVEL, ** POSITIVE OPENING TO IEC 947-5-1)	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**01B GL**07B	SNAP - ACTION CONTACTS SINGLE POLE Zb	37.5 35 33** 30.5 21-22, 13-14 0.9 DIFFERENTIAL TRAVEL	16 / 3.6	27 / 6.0	0.1 / 3.9	1.0 / .04	250
GL**03B GL**33B	SLOW ACTING BREAK BEFORE MAKE Zb	37.5 35** 30.5 21-22, 13-14 34	16 / 3.6	27 / 6.0	0.1 / 3.9	1.0 / .04	250
GL**04B GL**34B	SLOW ACTING MAKE BEFORE BREAK Zb	37.5 34** 30.5 21-22, 13-14 35	16 / 3.6	27 / 6.0	0.1 / 3.9	1.0 / .04	250
GL**05B GL**35B	SLOW ACTING 2X	37.5 34 30.5 13-14, 23-24	16 / 3.6	27 / 6.0	0.1 / 3.9	1.0 / .04	250
GL**06B GL**36B	SLOW ACTING 2Y	37.5 35** 30.5 11-12, 21-22 34	16 / 3.6	27 / 6.0	0.1 / 3.9	1.0 / .04	250
GL**20B GL**22B GL**24B GL**32B	SNAP ACTION CONTACTS DOUBLE POLE	37.5 35 33** 30.5 11-12, 21-22, 13-14, 23-24 0.9 DIFFERENTIAL TRAVEL	16 / 3.6	37 / 8.2	0.1 / 3.9	1.0 / .04	250
GL**21B GL**25B GL**28B GL**31B	STEP 1, STEP 2 SNAP ACTION CONTACTS DOUBLE POLE SEQUENCIAL	37.5 35 33.8 30.5 11-12, 13-14, 21-22, 23-24 .8 DIFFERENTIAL TRAVEL .8 DIFFERENTIAL TRAVEL	16 / 3.6	N/A	0.1 / 3.9	1.0 / .04	250

FIGURE 12, WOBBLE HEAD, ANGULAR ACTUATION

CATALOG LISTING	CONTACT BLOCK DIAGRAM	NOMINAL TRAVELS AND RELATED TERMINALS (CONTACT CLOSED, CONTACT OPEN, - CONTACT CLOSED DIFFERENTIAL TRAVEL, ** POSITIVE OPENING TO IEC 947-5-1)	MAXIMUM OPERATING TORQUE N-m / LB/in	MAXIMUM DISCONNECT TORQUE N-m / LB/in	MAX OPERATE DEGREE/S	MIN OPERATE VELOCITY DEGREE/S	MAX OPERATE RATE CYCLES/MIN
GL**01E GL**07E	SNAP - ACTION CONTACTS SINGLE POLE Zb	18° 21-22, 13-14 8° DIFFERENTIAL TRAVEL	0.2 / 1.8	N/A	360	8	100
GL**03E GL**33E	SLOW ACTING BREAK BEFORE MAKE Zb	0° 18° 25° 35° 21-22, 13-14	0.2 / 1.8	N/A	360	8	100
GL**04E GL**34E	SLOW ACTING MAKE BEFORE BREAK Zb	0° 18° 25° 35° 21-22, 13-14	0.2 / 1.8	N/A	360	8	100
GL**05E GL**35E	SLOW ACTING 2X	0° 25° 35° 13-14, 23-24	0.2 / 1.8	N/A	360	8	100
GL**06E GL**36E	SLOW ACTING 2Y	0° 18° 35° 11-12, 21-22	0.2 / 1.8	N/A	360	8	100
GL**20E GL**22E GL**24E GL**32E	SNAP ACTION CONTACTS DOUBLE POLE	18° 11-12, 21-22, 13-14, 23-24 8° DIFFERENTIAL TRAVEL	0.2 / 1.8	N/A	360	8	100

FIGURE 12, WOBBLE HEAD, SIDE ACTUATION AT 100mm

CATALOG LISTING	CONTACT BLOCK DIAGRAM	NOMINAL TRAVELS AND RELATED TERMINALS (CONTACT CLOSED, CONTACT OPEN, - CONTACT CLOSED DIFFERENTIAL TRAVEL, ** POSITIVE OPENING TO IEC 947-5-1)	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**01E GL**07E	SNAP - ACTION CONTACTS SINGLE POLE Zb	26 21-22, 13-14 12 DIFFERENTIAL TRAVEL	2.5 / 0.6	N/A	.5 / 19.7	11 / .43	100
GL**03E GL**33E	SLOW ACTING BREAK BEFORE MAKE Zb	26.5 38.1 21-22, 13-14	2.5 / 0.6	N/A	.5 / 19.7	11 / .43	100
GL**04E GL**34E	SLOW ACTING MAKE BEFORE BREAK Zb	26.5 38.1 21-22, 13-14	2.5 / 0.6	N/A	.5 / 19.7	11 / .43	100
GL**05E GL**35E	SLOW ACTING 2X	38.1 13-14, 23-24	2.5 / 0.6	N/A	.5 / 19.7	11 / .43	100
GL**06E GL**36E	SLOW ACTING 2Y	26.5 11-12, 21-22	2.5 / 0.6	N/A	.5 / 19.7	11 / .43	100
GL**20E GL**22E GL**24E GL**32E	SNAP ACTION CONTACTS DOUBLE POLE	26 11-12, 21-22, 13-14, 23-24	2.5 / 0.6	N/A	360	8	100

ANSI Y14.5M-1982 APPLIES

THIRD ANGLE PROJECTION

SCALE FULL

DO NOT SCALE PRINT

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

	DIM in	TOL metric	DIM in	TOL metric
NO PLACES	X	1/2 DIA.	X.X	0.8/.03
ONE PLACE	X.X	0.25 DIA.	X.XX	0.381/.015
TWO PLACES	X.XX	0.13/.005	X.XXX	0.13/.005
THREE PLACES				
ANGLES		±2°		

DESIGN UNITS: SI METRIC ☒ US CUSTOMARY ☐

WEIGHT

FED. MFG. CODE 91929
MICRO SWITCH a Honeywell Division

SWITCH, ENCLOSED

CATALOG LISTING
GL SERIES CHART 1

M GL SERIES CHART 1 — PAGE 7 OF 13 — RELEASE NO. PR-20782 — REPLACES
DRAWING NUMBER — ISSUE 12 — MDM
REVISIONS
A ECO-93389 KEO 4NOV98
B 210541 TSM 8JUN00
C 202747 JLR 14FEB01
D 0000401 GLH 7JUN03
E 0002986 BS 20JAN04
F 0023759 RKP 07AUG06
G 0037216 BS 08FEB08
DRAWN W L S 20AUG93 — CHECK GL H 26AUG93 — CHECK BL R 08FEB08 — CHECK MDM — CHECK — PTC/CAD