

MICRO SWITCH™ GSX Series

Explosion-Proof Safety Switch



DESCRIPTION

Honeywell Sensing and Control MICRO SWITCH™ GSX Series Explosion-Proof Safety Switches combines the world-class MICRO SWITCH™ global safety switch (GSS) with our superior explosion-proof housing from our LSX and BX product lines, offering our customers the best of our engineering expertise.

FEATURES

- Snap-action contacts with positive break
- Positive action push plunger breaks current upon opening of door or aperture
- Explosion-proof housing for hazardous locations
- NEMA 1, 3, 4, 12, 13 and IP67 sealing
- cULus, ATEX, IECEx
- Simple installation
- Positive break feature
- Extensive switching options and actuator styles

BENEFITS

- Designed to ensure that even welded contacts will open and the machine will stop in an emergency
- Breaks current upon opening of door or aperture
- Reduces risk that hazardous gases or dusts could cause an explosion
- Meets IECEx standards
- Designed to provide a safe failure mode, ensuring the machine will not start
- Superior sealing for different applications

The positive break feature is designed to provide a safe failure mode, ensuring the machine will not start, and therefore supporting a safer working environment.

The GSX Series safety switch platform allows for over 10,000 actuator and switching option combinations, enabling our customers to source most of their safety and explosion-proof switch requirements from a single, global supplier.

POTENTIAL APPLICATIONS

Gates, doors, access panels or cages on machinery in:

- Hydrocarbon refining
- Chemical processing
- Agricultural equipment
- Food processing
- Grain elevators

MICRO SWITCH™ GSX Series

SPECIFICATIONS

Designation and Utilization Category		Rated Operational Current I _e (A) at Rated Operational Voltage U _e (V)						
		24 V	120 V	240 V	380 V	480 V	500 V	600 V
AC15	A300	—	6 A	3 A	—	—	—	—
AC15	A500	—	6 A	3 A	1,9 A	1,5 A	1,4 A	—
AC15	A600	—	6 A	3 A	1,9 A	1,5 A	1,4 A	1,2 A
DC13	Q300	2,8 A	0,55 A	0,27 A	—	—	—	—

Rated thermal current (I_{th})	10 A	Sealing	IP67; NEMA 1, 3, 4, 12, 13
Rated impulse withstand (U_{imp})	2500 V	Pollution degree	3
Rated insulation voltage (U_i)	300 V, 500 V, 600 V	Operating temperature range	-40 °C to 70 °C [-40 °F to 158 °F]
Short-circuit protective device (type/maximum rating)	Class J fuse (10 A/600 V)	Expected mechanical life	1,000,000 operations
Conditional short-circuit current	1000 A	—	—

Complies with:

Low Voltage Directive 73/23/EEC, as amended by directive 93/68/EEC.

Machinery Directive 98/37/EEC only as the directives relate to the components being used in a safety function.

IEC/EN60947-1, IEC/EN60947-5-1.

Explosion-Proof Safety Switch

NOMENCLATURE TREE MICRO SWITCH™ GSX Series Nomenclature

GSX	A	16	A	1	B																																																																																							
Switch type ^(Note 1)	Housing (conduit)	Basic switch	Head	Actuator	Actuator options	Modifications/ Specials																																																																																						
Explosion-proof positive break series	<table border="1"> <tr><td>A</td><td>0.5 in NPT</td></tr> <tr><td>B</td><td>PG 13.5</td></tr> <tr><td>C</td><td>20 mm</td></tr> <tr><td>D</td><td>PF 1/2</td></tr> </table>	A	0.5 in NPT	B	PG 13.5	C	20 mm	D	PF 1/2	<table border="1"> <tr><td>01</td><td>Snap action, 1NC/1NO</td></tr> <tr><td>03</td><td>Slow acting, 1NC/1NO Break before make</td></tr> <tr><td>04</td><td>Slow acting, 1NC/1NO Make before break</td></tr> <tr><td>06</td><td>Slow acting, 2NC</td></tr> <tr><td>07</td><td>Snap action, 1NC/1NO, gold</td></tr> <tr><td>20</td><td>Snap action, 2NC/2NO</td></tr> <tr><td>22</td><td>Snap action, 2NC/2NO, gold</td></tr> <tr><td>33</td><td>Slow acting, 1NC/1NO Break before make, gold</td></tr> <tr><td>34</td><td>Slow acting, 1NC/1NO Make before break, gold</td></tr> <tr><td>36</td><td>Slow acting 2NC, gold</td></tr> <tr><td>40</td><td>Slow acting, 4NC</td></tr> <tr><td>41</td><td>Slow acting, 4NC, gold</td></tr> <tr><td>42</td><td>Slow acting, 2NC/1NO Break before make</td></tr> <tr><td>43</td><td>Slow acting, 2NC/1NO Break before make, gold</td></tr> <tr><td>44</td><td>Slow acting, 2NC/2NO Break before make</td></tr> <tr><td>45</td><td>Slow acting, 2NC/2NO Break before make, gold</td></tr> <tr><td>46</td><td>Slow acting, 3NC/1NO Break before make</td></tr> <tr><td>47</td><td>Slow acting, 3NC/1NO Break before make, gold</td></tr> </table>	01	Snap action, 1NC/1NO	03	Slow acting, 1NC/1NO Break before make	04	Slow acting, 1NC/1NO Make before break	06	Slow acting, 2NC	07	Snap action, 1NC/1NO, gold	20	Snap action, 2NC/2NO	22	Snap action, 2NC/2NO, gold	33	Slow acting, 1NC/1NO Break before make, gold	34	Slow acting, 1NC/1NO Make before break, gold	36	Slow acting 2NC, gold	40	Slow acting, 4NC	41	Slow acting, 4NC, gold	42	Slow acting, 2NC/1NO Break before make	43	Slow acting, 2NC/1NO Break before make, gold	44	Slow acting, 2NC/2NO Break before make	45	Slow acting, 2NC/2NO Break before make, gold	46	Slow acting, 3NC/1NO Break before make	47	Slow acting, 3NC/1NO Break before make, gold	<table border="1"> <tr><td>A</td><td>Side rotary momentary</td></tr> <tr><td>B</td><td>Top pin plunger</td></tr> <tr><td>C</td><td>Top roller plunger</td></tr> <tr><td>D</td><td>Top roller lever</td></tr> </table>	A	Side rotary momentary	B	Top pin plunger	C	Top roller plunger	D	Top roller lever	<table border="1"> <tr><td>1</td><td>Std. fixed length roller</td></tr> <tr><td>3</td><td>Yoke roller</td></tr> <tr><td>5</td><td>Offset roller</td></tr> </table>	1	Std. fixed length roller	3	Yoke roller	5	Offset roller	<table border="1"> <tr><td>A</td><td>19 x 6,35 [0.75 x 0.25] nylon roller</td></tr> <tr><td>C</td><td>25,4 x 12,7 [1 x 0.5] nylon roller</td></tr> <tr><td>D</td><td>38,1 x 6,35 [1.5 x 0.25] nylon roller</td></tr> <tr><td>E</td><td>19 x 6,35 [0.75 x 0.25] bronze roller</td></tr> <tr><td>W</td><td>38,1 x 12,7 [0.75 x 0.5] rubber roller</td></tr> <tr><td>Y</td><td>50,9 x 12,7 [2.0 x 0.5] rubber roller</td></tr> </table>	A	19 x 6,35 [0.75 x 0.25] nylon roller	C	25,4 x 12,7 [1 x 0.5] nylon roller	D	38,1 x 6,35 [1.5 x 0.25] nylon roller	E	19 x 6,35 [0.75 x 0.25] bronze roller	W	38,1 x 12,7 [0.75 x 0.5] rubber roller	Y	50,9 x 12,7 [2.0 x 0.5] rubber roller	<table border="1"> <tr><td>1</td><td>Clockwise rotation</td></tr> <tr><td>2</td><td>Cnterclock rotation</td></tr> <tr><td>3</td><td>Head assb. w/ actuator to right side</td></tr> <tr><td>4</td><td>Head assb. w/ actuator to left side</td></tr> <tr><td>5</td><td>Head assb. w/ actuator to mtg. surf.</td></tr> <tr><td>6</td><td>Roller perpendicular to mounting surface</td></tr> <tr><td>C</td><td>Prelead cable</td></tr> <tr><td>Q</td><td>Connector</td></tr> </table>	1	Clockwise rotation	2	Cnterclock rotation	3	Head assb. w/ actuator to right side	4	Head assb. w/ actuator to left side	5	Head assb. w/ actuator to mtg. surf.	6	Roller perpendicular to mounting surface	C	Prelead cable	Q	Connector
A	0.5 in NPT																																																																																											
B	PG 13.5																																																																																											
C	20 mm																																																																																											
D	PF 1/2																																																																																											
01	Snap action, 1NC/1NO																																																																																											
03	Slow acting, 1NC/1NO Break before make																																																																																											
04	Slow acting, 1NC/1NO Make before break																																																																																											
06	Slow acting, 2NC																																																																																											
07	Snap action, 1NC/1NO, gold																																																																																											
20	Snap action, 2NC/2NO																																																																																											
22	Snap action, 2NC/2NO, gold																																																																																											
33	Slow acting, 1NC/1NO Break before make, gold																																																																																											
34	Slow acting, 1NC/1NO Make before break, gold																																																																																											
36	Slow acting 2NC, gold																																																																																											
40	Slow acting, 4NC																																																																																											
41	Slow acting, 4NC, gold																																																																																											
42	Slow acting, 2NC/1NO Break before make																																																																																											
43	Slow acting, 2NC/1NO Break before make, gold																																																																																											
44	Slow acting, 2NC/2NO Break before make																																																																																											
45	Slow acting, 2NC/2NO Break before make, gold																																																																																											
46	Slow acting, 3NC/1NO Break before make																																																																																											
47	Slow acting, 3NC/1NO Break before make, gold																																																																																											
A	Side rotary momentary																																																																																											
B	Top pin plunger																																																																																											
C	Top roller plunger																																																																																											
D	Top roller lever																																																																																											
1	Std. fixed length roller																																																																																											
3	Yoke roller																																																																																											
5	Offset roller																																																																																											
A	19 x 6,35 [0.75 x 0.25] nylon roller																																																																																											
C	25,4 x 12,7 [1 x 0.5] nylon roller																																																																																											
D	38,1 x 6,35 [1.5 x 0.25] nylon roller																																																																																											
E	19 x 6,35 [0.75 x 0.25] bronze roller																																																																																											
W	38,1 x 12,7 [0.75 x 0.5] rubber roller																																																																																											
Y	50,9 x 12,7 [2.0 x 0.5] rubber roller																																																																																											
1	Clockwise rotation																																																																																											
2	Cnterclock rotation																																																																																											
3	Head assb. w/ actuator to right side																																																																																											
4	Head assb. w/ actuator to left side																																																																																											
5	Head assb. w/ actuator to mtg. surf.																																																																																											
6	Roller perpendicular to mounting surface																																																																																											
C	Prelead cable																																																																																											
Q	Connector																																																																																											

NOTES

(1) Not all possible combinations are available; these are only guidelines.

MICRO SWITCH™ GSX Series

Figure 1. Side rotary head with standard roller

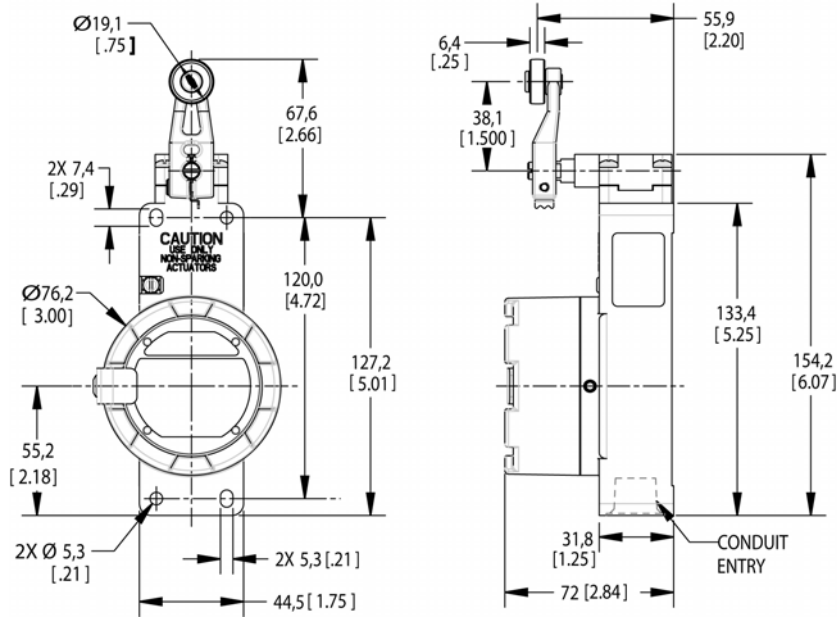


Figure 2. Pin plunger

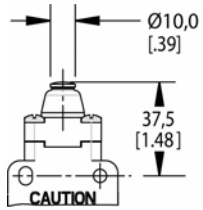


Figure 3. Top roller plunger

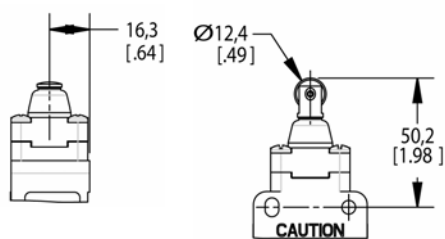
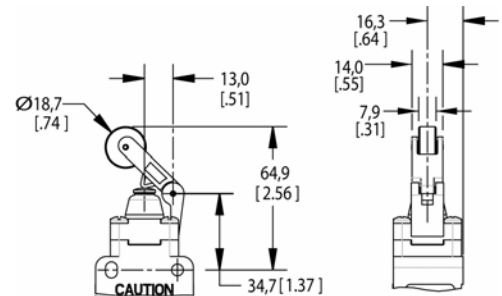


Figure 4. Top roller lever



ORDER GUIDE

Listing	Description
GSXA42A1E	0.5 in NPT housing 2NC/1NO side rotary Ø 0.75 in x 0.25 in bronze roller
GSXA42B	0.5 in NPT housing 2NC/1NO pin plunger
GSXA42C	0.5 in NPT housing 2NC/1NO top roller plunger
GSXA42D	0.5 in NPT housing 2NC/1NO top roller lever
GSXA46A1E	0.5 in NPT housing 3NC/1NO side rotary Ø 0.75 in x 0.25 in bronze roller
GSXA46B	0.5 in NPT housing 3NC/1NO pin plunger
GSXA46C	0.5 in NPT housing 3NC/1NO top roller plunger
GSXA46D	0.5 in NPT housing 3NC/1NO top roller lever
GSXC42A1E	20 mm housing 2NC/1NO side rotary Ø 0.75 in x 0.25 in bronze roller
GSXC42B	20 mm housing 2NC/1NO pin plunger
GSXC42C	20 mm housing 2NC/1NO top roller plunger
GSXC42D	20 mm housing 2NC/1NO top roller lever
GSXC46A1E	20 mm housing 3NC/1NO side rotary Ø 0.75 in x 0.25 in bronze roller
GSXC46B	20 mm housing 3NC/1NO pin plunger
GSXC46C	20 mm housing 3NC/1NO top roller plunger
GSXC46D	20 mm housing 3NC/1NO top roller lever

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.

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.

WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Honeywell's standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order acknowledgement or consult your local sales office for specific warranty details. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace, at its option, without charge those items it finds defective. **The foregoing is buyer's sole remedy and is in lieu of all other**

warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall Honeywell be liable for consequential, special, or indirect damages.

While we provide application assistance personally, through our literature and the Honeywell web site, it is up to the customer to determine the suitability of the product in the application.

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use.

SALES AND SERVICE

Honeywell serves its customers through a worldwide network of sales offices, representatives and distributors. For application assistance, current specifications, pricing or name of the nearest Authorized Distributor, contact your local sales office or:

E-mail: info.sc@honeywell.com

Internet: www.honeywell.com/sensing

Phone and Fax:

Asia Pacific +65 6355-2828
+65 6445-3033 Fax
Europe +44 (0) 1698 481481
+44 (0) 1698 481676 Fax
Latin America +1-305-805-8188
+1-305-883-8257 Fax
USA/Canada +1-800-537-6945
+1-815-235-6847
+1-815-235-6545 Fax

Sensing and Control

Honeywell

1985 Douglas Drive North

Golden Valley, Minnesota 55422

www.honeywell.com/sensing

004764-1-EN IL50 GLO Printed in USA
July 2008

Copyright © 2008 Honeywell International Inc. All rights reserved.

Honeywell