

MICRO SWITCH™ Flame-Proof Limit Switches

GXS Series

100448

Issue 3

Datasheet



FEATURES

- II 2 G Ex d IIC T6, II 2 D Ex tD A21 IP66 T85°C
- KEMA 00 ATEX 2103 X, IEC Ex KEM 10.0039X
- Conforms to EN60079-0, EN60079-1, EN61241-0, EN61241-1
- CE marked
- EN50041 mounting compatible (GXA Series)
- EN50047 mounting compatible (GXE Series)
- Rugged zinc die-cast housing with epoxy coating
- Pre-wired, 5 m of cable
- Bottom exit cable ONLY
- Double insulated switch element with snap-action basic switch

DESCRIPTION

The GXS Series flame-proof limit switches are designed specifically for use in hazardous applications. The GXS enclosure is epoxy sealed and has an environmental protection of IP66 as per IEC/EN 60529. The entire GXS Series complies with the European Directive on Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres (94/9/EC) commonly referred to as the ATEX Directive.

VALUE TO CUSTOMERS

- Flameproof protection
- Meets product design and quality systems requirements of ATEX 94/9/EC
- Standard European mounting of 30 mm x 60 mm (GXA Series) or 20 mm to 22 mm (GXE Series)
- Suitable for difficult operating environments
- Fast and easy to install
- Epoxy-sealed cable and basic switch in a limit switch body
- External earth connection not required
- Change over (SPDT), 3 wire device, 1NC/1NO

POTENTIAL APPLICATIONS

- Hazardous areas Category 2 (Zones 1 & 21) or Category 3 (Zones 2 & 22)
- Petrochemical
- Material handling
- Valves

Category	Flammable atmospheres	Protection required	Requirements for equipment
2	Medium risk of an explosive atmosphere occurring Gas = Zone 1 Dust = Zone 21	High	Equipment is capable of operating safely under a single fault condition (ib) or alternatively, one or more types of protection is used. For example, 'd', 'e', 'p', etc.
3	Low risk of an explosive atmosphere occurring Gas = Zone 2 Dust = Zone 22	Normal	Equipment for safe use in normal operation, typically (Ex n) equipment

PORTFOLIO

The **GXS Series** is part of the MICRO SWITCH™ family of hazardous location limit switches.

Note 1: The product is certified flame-proof only with the pre-wired 5 m cable. The cable on its own does not carry any hazardous area certifications.

Note 2: The GXS Series is part of the MICRO SWITCH™ family of hazardous location limit switches and has design and form factor similar to the GLA/GLE Series limit switches. To view these series, please click: [GLA Series](#), [GLE Series](#)

MICRO SWITCH™ Flame-Proof Limit Switches, GXS Series

Table 1. Specifications

Characteristic	Parameter
Mechanical life	up to 2 million operations
Degree of protection	IP66, EN 60529
Operating temperature @ 3 A	-20 °C to 75 °C [-4 °F to 167 °F]
Operating temperature @ 4 A	-20 °C to 60 °C [-4 °F to 140 °F]
Standards/approvals	EN60079-0, EN60079-1, EN61241-0, EN61241-1 (Ex) II 2 G Ex d IIC T6, II 2 D Ex tD A21 IP66 T85°C KEMA 00 ATEX 2103 X; IEC Ex KEM10.0039X (X indicates special conditions for safe use, see certificates for details)
Electrical rating	AC15, DC13 1NC/1NO change over contacts Double insulated switch element No internal or external earth connection
Contact material	silver
Cable/body	Harmonised Cenelec cable, HO5VV-F, 3-core x 0,75 mm ² Black (BK) - common Grey (GY) - NC Brown (BN) - NO Epoxy-sealed cable and body
Shock	50 g, IEC 60068-2-27
Vibration	10 g, IEC 60068-2-6

Table 2. UL and CSA Electrical Ratings

Rating Code	Electrical Rating
ac15 (Ue)	250 V, 4 A
dc15 (Ue)	250 V, 0.15 A

Figure 1. Product Nomenclature

GXA or GXE	#	1	A	A	3
Switch Type	Cable Length	Circuitry	Actuator Type	Side Lever Roller Material	Head Orientation
GXA Series Hazardous Area Limit Switch	5 5 meter cable	1 Silver contacts, snap action	A1 Side rotary, fixed roller lever	A Plastic	Lever to front or plunger parallel to mtg surface
		2 Gold contacts, snap action	A2 Side rotary, adjustable roller lever	B Steel	3 Lever to right
			A4J Side rotary, adjustable 140 mm aluminum rod		4 Lever to left
GXE Series Hazardous Area Limit Switch			B Pin plunger		5 Lever to rear
			C Roller plunger		6 Roller plunger perpendicular to mtg surface
			D Roller arm		

MICRO SWITCH™ Flame-Proof Limit Switches, GX Series

Table 3. GX/GXE Series Order Guide

Catalog Listing	Description	Actuator Type	Operate Force or Torque [max.]	Bar Chart	Free Position	Operate Point	Pretravel	Total Travel	Differential Travel
GXA51A1B	Limit switch, EN50041, 30 mm x 60 mm mounting	Side rotary with fixed 38,1 mm [1.50 in] lever & Ø19 mm x 6,4 mm [Ø0.75 in x 0.25 in] steel roller	0,33 Nm [2.9 in lb]		0° ref.	29°	29°	85°	7°
GXA51A2B		Side rotary with adjustable 38,1 mm to 91,5 mm [1.5 in to 3.6 in] lever & Ø19 mm x 6,4 mm [Ø0.75 in x 0.25 in] steel roller	0,33 Nm [2.9 in lb]		0° ref.	26°	26°	85°	7°
GXA51B		Top pin plunger Ø10,0 mm [Ø0.39 in]	16 N [3.6 lb]		37,5 mm [1.48 in]	35,0 mm [1.38 in]	2,5 mm [0.10 in]	7,0 mm [0.28 in]	0,5 mm [0.020 in]
GXA51C		Top roller plunger Ø12,4 mm x 4,7 mm [Ø0.49 in x 0.19 in] steel roller	16 N [3.6 lb]		50,5 mm [1.99 in]	48,0 mm [1.89 in]	2,5 mm [0.10 in]	7,0 mm [0.28 in]	0,5 mm [0.020 in]

MICRO SWITCH™ Flame-Proof Limit Switches, GXS Series

Table 3. GXA/GXE Series Order Guide, continued

Catalog Listing	Description	Actuator Type	Operate Force or Torque [max.]	Bar Chart	Free Position	Operate Point	Pretravel	Total Travel	Differential Travel
GXE51A1A	Limit switch, EN50047 20 mm to 22 mm mounting	Side rotary with fixed 46,5 mm [1.83 in] lever & Ø19 mm x 6,0 mm [Ø0.75 in x 0.24 in] nylon roller	0,25 Nm [2.21 in-lb]		0° ref.	26°	26°	75°	8°
GXE51A1B		Side rotary with fixed 46,5 mm [1.83 in] lever & Ø19 mm x 6,0 mm [Ø0.75 in x 0.24 in] steel roller	0,25 Nm [2.21 in-lb]		0° ref.	26°	26°	75°	8°
GXE51A2A		Side rotary with adjustable 34 mm to 79 mm [1.3 in to 3.1 in] lever & Ø19 mm x 6,0 mm [Ø0.75 in x 0.24 in] nylon roller	0,25 Nm [2.21 in-lb]		0° ref.	26°	26°	75°	8°
GXE51A2B		Side rotary with adjustable 3 mm to 79 mm [1.3 in to 3.1 in] lever & Ø19 mm x 6,0 mm [Ø0.75 in x 0.24 in] steel roller	0,25 Nm [2.21 in-lb]		0° ref.	26°	26°	75°	8°
GXE51A4J		Side rotary with adjustable aluminum rod 20 mm to 150 mm [0.8 in to 5.9 in] x Ø3,2 mm [0.13 in]	0,25 Nm [2.21 in-lb]		0° ref.	26°	26°	75°	8°
GXE51B		Top pin plunger Ø9,9 mm [0.39 in]	16 N [3.6 lb]		21,0 mm [0.83 in]	19,0 mm [0.75 in]	2,0 mm [0.080 in]	6,0 mm [0.24 in]	0,5 mm [0.020 in]
GXE51C		Top roller plunger Ø12,4 mm x 4,7 mm [Ø0.49 in x 0.19 in] steel roller	16 N [3.6 lb]		31,0 mm [1.22 in]	29,0 mm [1.14 in]	2,0 mm [0.080 in]	6,0 mm [0.24 in]	0,5 mm [0.020 in]
GXE51D		Top roller lever Ø12,4 mm x 4,7 mm [Ø0.49 x 0.19 in] steel roller	16 N [3.6 lb]		39,3 mm [1.55 in]	37,3 mm [1.47 in]	2,0 mm [0.080 in]	8,3 mm [0.33 in]	0,7 mm [0.030 in]

MICRO SWITCH™ Flame-Proof Limit Switches, GXS Series

GXS SERIES DIMENSIONS

Note: GXA Side Rotary and GXE Plunger versions shown.

Figure 2. GXA Series Dimensions mm [in]

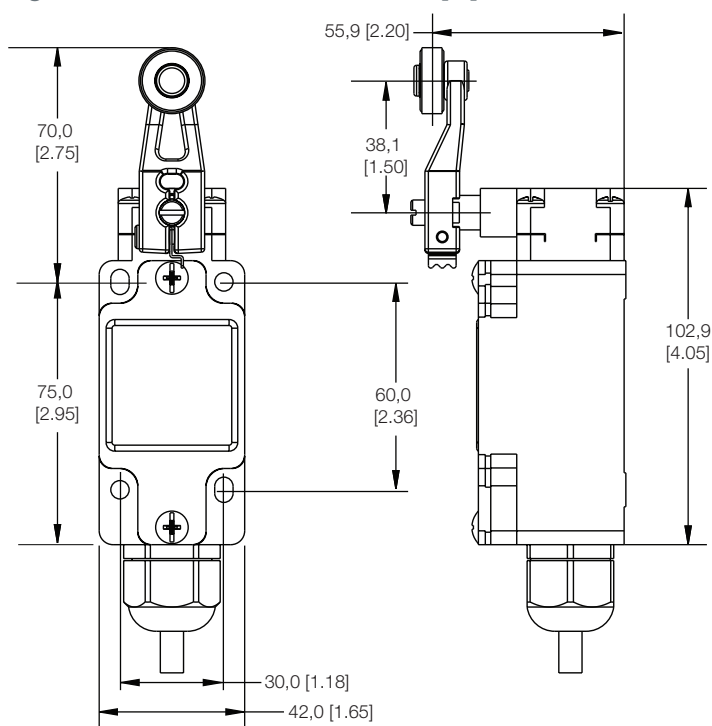


Figure 3. GXA Series Side Rotary Adjustable Dimensions

(refer to Figure 2 for additional measurements)

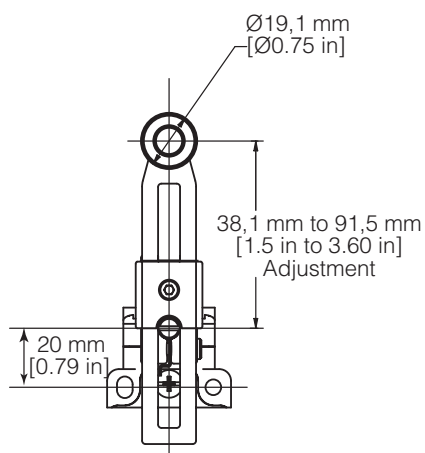


Figure 4. GXA Series Pin Plunger Dimensions

(refer to Figure 2 for additional measurements)

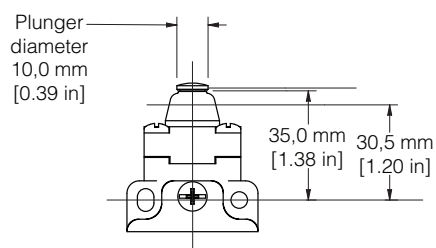
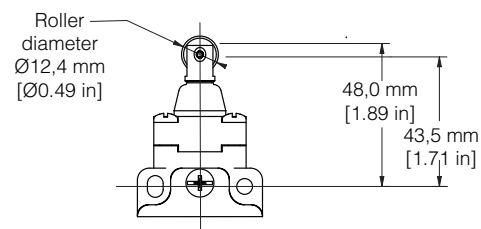


Figure 5. GXA Series Roller Plunger Dimensions

(refer to Figure 2 for additional measurements)



MICRO SWITCH™ Flame-Proof Limit Switches, GXS Series

GXS SERIES DIMENSIONS

Note: GXA Side Rotary and GXE Plunger versions shown.

Figure 6. GXE Series Dimensions mm [in]

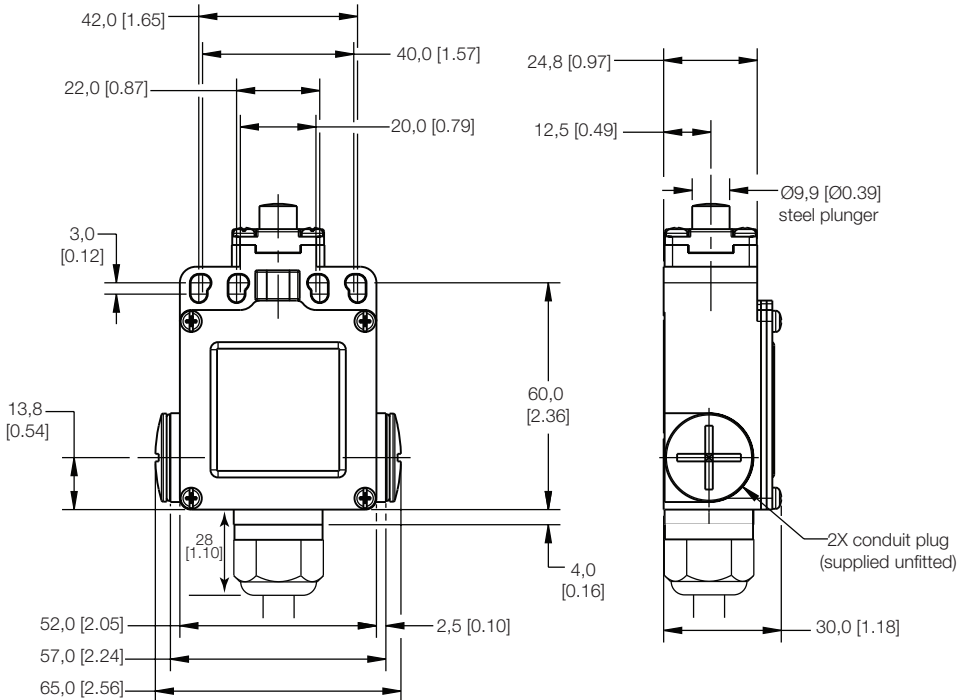


Figure 7. GXE Series Side Rotary Dimensions mm [in]

(refer to Figure 6 for additional measurements)

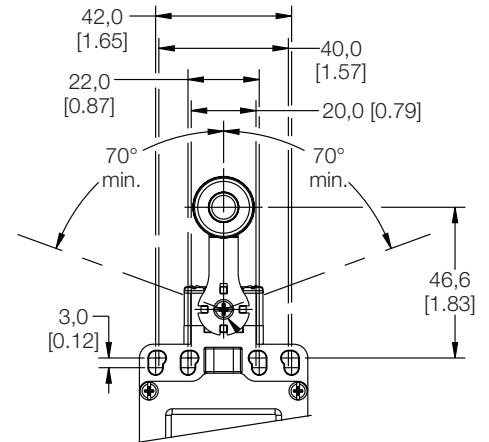


Figure 8. GXE Series Side Rotary Adjustable Dimensions mm [in]

(refer to Figure 6 for additional measurements)

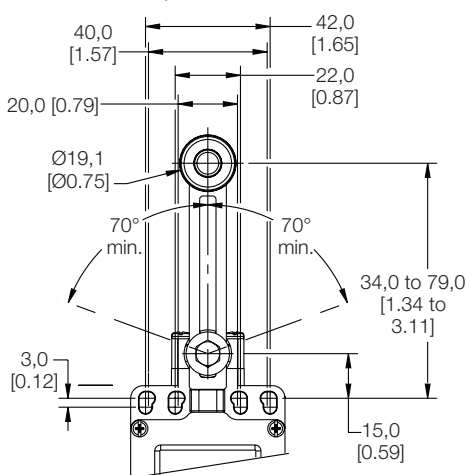


Figure 9. GXE Series Roller Plunger Dimensions mm [in]

(refer to Figure 6 for additional measurements)

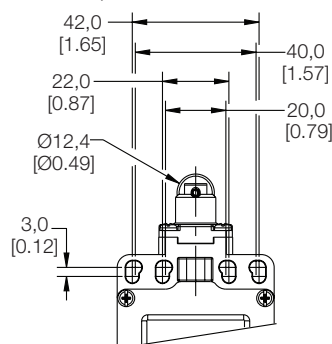
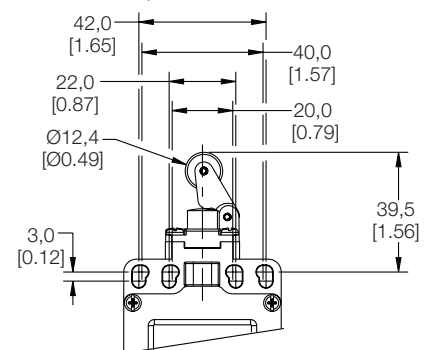


Figure 10. GXE Series Roller Lever Dimensions mm [in]

(refer to Figure 6 for additional measurements)



ADDITIONAL MATERIALS

The following associated literature is available at sensing.honeywell.com:

- Product range guide
- Product application-specific information
 - Guide to Hazardous Location Approvals: MICRO SWITCH™ Hazardous Area Limit Switches
 - MICRO SWITCH™ Hazardous Area Limit Switches brochure

Find out more

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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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