

IEC Explosion-Proof Heat/Cold Resistant Explosion-Proof Limit Switches

Models LX800 / VCX8_0

- Usable in a variety of volatile gas/steam atmospheres
 - Heat-resistant model
 - Explosion-proof performance : Ex db eb IIC T4 Gb
 - Explosion-proof certified temperature : -10 °C to +100 °C
 - Cold-resistant model
 - Explosion-proof performance : Ex db eb IIC T6 Gb
 - Explosion-proof certified temperature : -40 °C to +60 °C
- db: Flameproof structure – internal switch
- eb: Increased safety explosion proof structure – housing
- For outdoor use specifications, silicone rubber packing has excellent weather resistance, and external screws are made of stainless steel.
- For use in harsher conditions, such as coastal areas, models with an anti-corrosive aluminum housing are also available.



Explosion-Proof Certifications

- Switches are certified according to Japanese and overseas explosion-proof standards for gas (including hydrogen) and steam.

Explosion-proof standards	TIIS	ATEX	IECEx	NEPSI	KOSHA	CNS	NK
Applicable regions	Japan	Europe	Global	China	Korea	Taiwan	Ships

- When using a TIIS-certified model, combine with pressure-resistant packing connector 2PA-JEX__RM.
- Operating temperature of model 2PA-JEX__RM: -40 °C to 100 °C
Applicable cable size: φ5.5 to φ13.5
- For models with overseas certification (including NK), select a connector (cable gland) from commercially available Ex components.
- Usable in the following conditions:
Ambient temperature: -10 to +100 °C (heat-resistant models), -40 to +60 °C (cold-resistant models)
Hazardous areas: Zone 1 and Zone 2



Features

- Attachment and operating characteristics are compatible with existing explosion-proof switches (models LX700 / VCX-7_0)
Note: Domestic (TIIS-certified) models are certified exclusively in combination with special cable glands. Use them together with 2PA-JEX__RM models conforming to the latest TIIS technical guidelines.
- Mechanical life span specifications apply to switches installed in high temperature or low temperature atmospheres.
100,000 operations min. at 100 °C (heat-resistant models) / at -40 °C (cold-resistant models)
- For models with overseas certification (including NK), the conduit specifications conform to G thread / M thread / NPT.
- Anti-corrosion models can be selected with the following models.
LX800 : Roller lever (1LX) models, plunger (2LX) models, roller plunger (5LX) models
VCX8_0 : All models

Main Specifications

Item	Model No.	Model _LX800_	Model VCX8_0_
External standard		Compliant with TIIS, ATEX, IECEx, NEPSI, KOSHA, CNS, NK, IEC 60079 or standards conforming to those	
Structure	Contact form	2-circuit 1a1b switch	SPDT x 2
	Terminal type	M4 pan head machine screw with square washer	M3.5 pan head machine screw with square washer
	Contact material	Silver- or gold-plated rivet	Silver (rivet) / Gold alloy (cross-point)
	Explosion-proof structure	Internal switch: d (flameproof), housing: e (increased safety)	
	Protective structure	IP64/IP67	
Electrical rating (TIIS)		Silver: 3 A at 250 V AC, 0.8 A at 125 V DC, 0.4 A at 250 V DC Gold-plated: 0.1 A at 125 V AC, 0.1 A at 30 V DC	Silver: 3A at 250 V AC, 0.4 A at 125 V DC, 0.2 A at 250 V DC Gold alloy: 0.1 A at 125 V AC, 0.1 A at 30 V DC
Life span	Mechanical	100,000 operations min. at 100 °C (heat-resistant models) or at -40 °C (cold-resistant models) (1 million operations min. at normal temperature)	
	Electrical	Silver: 100,000 operations min. Gold-plated: 1 million operations min. at rated current and voltage	Silver: 100,000 operations min. Gold alloy: 1 million operations min. at rated current and voltage
Environment	Operating temperature	Heat-resistant models: -10 °C to +100 °C. Cold-resistant models: -40 °C to +60 °C	
	Operating humidity	95 % RH max. (without condensation)	
	Conduit	G½ / M20 / NPT½ / Special cable gland*	G¾ / M25 / NPT¾ / Special cable gland*

*TIIS-certified models are used exclusively in combination with model 2PA-JEX___RM Special cable glands.

Explosion-Proof Device Combinations and Model Number Structure

Region	Model _LX800_	Model VCX8_0_	Cable gland
Japan	①LX800②R4⑤⑥⑦	VCX8①0②R4⑤⑥⑦	2PA-JEX___RM
Overseas	①LX800②③④⑤⑥⑦	VCX8①0②③④⑤⑥⑦	Ex components*1

*1. Commercially available components for electrical products, whose safety has been confirmed by an external institution according to the procedures defined by IEC 60079



LX800 model No. selection

Item	Model number digit and meaning
① Actuator type	1: Roller lever. 2: Plunger. 5: Roller plunger
② Lever	1: Standard actuator (1LX: roller lever). 2: No lever. 3: Adjustable roller lever*2
③ Certification	R: TIIS. A: ATEX. B: IECEx. C: NEPSI. D: KOSHA. E: NK. F: CNS
④ Conduit	1: G½. 2: M20. 3: NPT½. 4: Special cable gland
⑤ Contact material	X: Silver. K: Gold-plated
⑥ Operating temperature	H: -10 °C to +100 °C. L: -40 °C to +60 °C
⑦ Housing material	X: Standard (ADC12). M: Corrosion-resistant (ADC3)

*2. Standard actuator for 2LX and 5LX

VCX8_0_ model number selection

Item	Model number digit and meaning
① Operation type	0: Center-neutral. 1: Simultaneous operation
② Lever	1: Standard actuator. 2: No lever. 3: Adjustable roller lever
③ Certification	R: TIIS. A: ATEX. B: IECEx. C: NEPSI. D: KOSHA. E: NK. F: CNS
④ Conduit	1: G¾. 2: M25. 3: NPT¾. 4: Special cable gland
⑤ Contact material	X: Silver. K: Gold alloy
⑥ Operating temperature	H: -10 °C to +100 °C. L: -40 °C to +60 °C
⑦ Housing material	X: Standard (ADC12). M: Corrosion-resistant (ADC3)

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