

XER Series

Operating Instructions for XER6022, XER6022-SS, XER1022 & XER1032

Explosion-Proof Classification

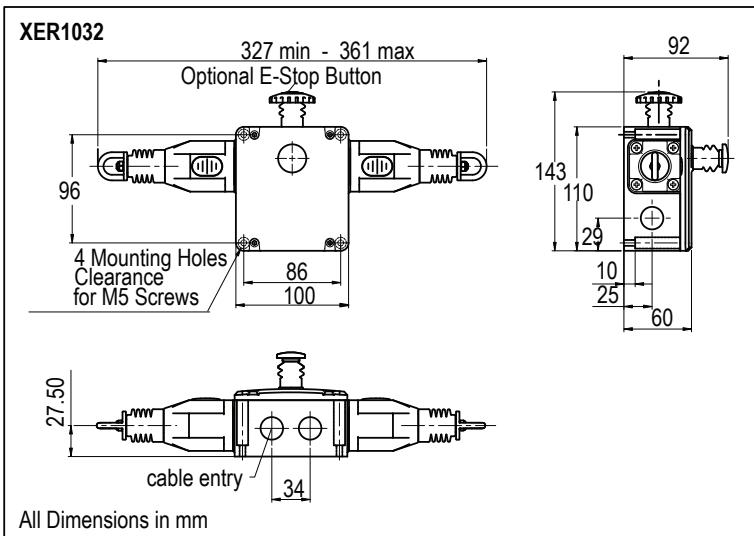
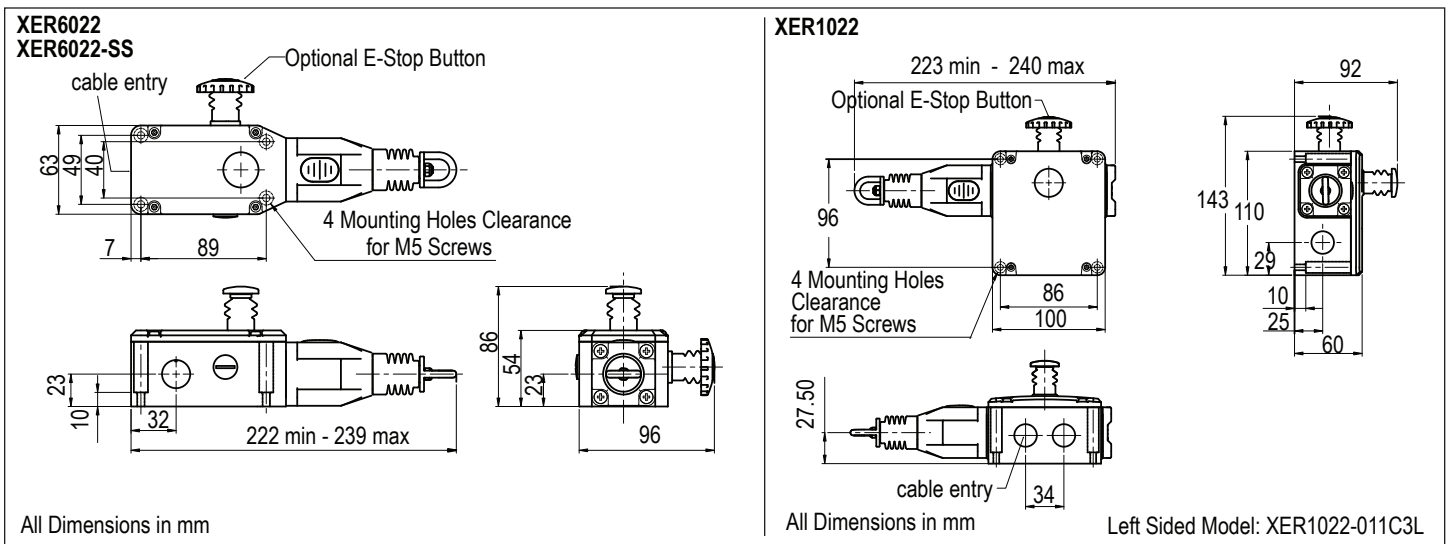
The explosion-proof models of safety interlock switches are specifically designed for potentially explosive atmospheres while retaining the features and operating characteristics of the conventional models.

A sealed flameproof contact block makes the explosion-proof interlock switches suitable for use in European Zone 1 and Zone 2 environments, which are typical of those found in the chemical and petrochemical industries. All switches are classified by the European method as EEx d II C T6. For a full explanation of the classification method, see "Hazardous Location Rating Systems for Interlock Switches" in The Safety Library Section of this catalog.

WARNING: These switches are not suitable for use in atmospheres containing Group I gases, e.g., methane (firedamp). These switches DO NOT meet all conditions of the US classification of Class I, Div 1, due to the differences between European and US classification methods. In the US and Canada, these products can be used in areas classified as Class I, Division 2 in Groups A (acetylene), B (hydrogen), C (ethylene) and D (propane).

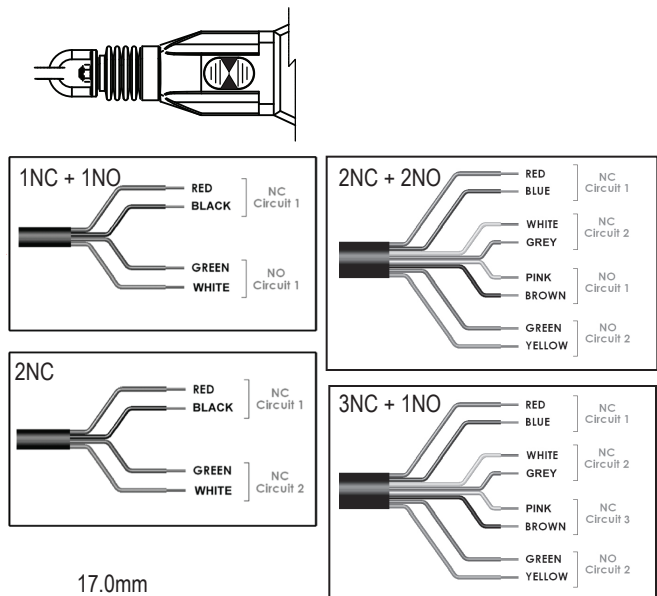
Installation must be in accordance with the following steps and stated specifications and should be carried out by suitably competent personnel. Adherence to the recommended maintenance instructions forms part of the warranty.

WARNING: Do not defeat, tamper, remove or bypass this unit. Severe injury to personnel could result.



Tension Indicator

Indicator shown with steel rope properly adjusted.



Contact Arrangement: XER6022, XER6022-SS, XER1022 and XER1032 Models

	0mm	3.5mm	14.5mm	17.0mm	
	Rope Slack		Tension Range		Contact open
1NC/2NC/3NC					Contact closed
1NO/2NO					

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1. Installation of all Safety Rope Switch systems must be in accordance with a risk assessment for the individual application. Installation must only be carried out by competent personnel and in accordance with these instructions.
2. Rope support eyebolts must be fitted at 2.5m. min. to 3m. max. intervals along all rope lengths between switches. The rope must be supported no more than 500mm from the switch eyebolt or Safety Spring (if used). It is important that this first 500mm is not used as part of the active protection coverage.
3. M5 mounting bolts must be used to fix the switches. Tightening torque for mounting bolts to ensure reliable fixing is 4Nm. Tightening torque for the lid screws, conduit entry plugs and cable glands must be 1.5Nm to ensure IP seal. Only use correct sizing glands for conduit entry and cable outside diameter.
4. Tensioning of rope is achieved by use of tensioner / gripper assemblies. Upon installation, tension to mid-position as indicated by the red arrows in the viewing window of each switch. Check operation for all switches and the control circuits by pulling the rope at various locations along the active protection area and resetting each switch by depressing the Blue Reset button. Ensure each time that the switches latch off and require manual resetting by depressing the Blue Reset button. Increase the system tension further, if required, depending upon the checks along the active length of coverage. If fitted with a Mushroom type E-Stop button (Red) then test and reset each switch to ensure function of control circuits. Typical operational conditions for successful operation of system is less than 75N. pulling force and less than 150mm deflection of rope between eyebolt supports.
5. Every week: Check correct operation of system at locations along all coverage length. Check for nominal tension setting, re-tension rope if necessary. Every 6 months: Isolate power and remove cover. Check screw terminal tightness and check for signs of moisture ingress. Never attempt to repair any switch.

Mechanical Features

Enclosure / Cover	Die-cast – painted yellow XER6022-SS = 316 stainless steel
External Parts	Stainless steel
IP Rating	IP67
Rope Spans Max	XER1022, XER1032 (heavy duty), dual head 200m., single head 125m. XER6022 (standard duty) = 80m XER6022-SS = 100m
Mounting	4 x M5
Mounting position	Any
Conduit entries	3m cable (all models)
Torque settings	Mounting = M5 4.0 Nm Lid = Torx M4 1.5 Nm Terminals = 1.0 Nm
Ambient Operating Temperature	-25C. to 80 C.
Vibration resistance	10-500Hz 0.35mm
Shock resistance	15g 11ms
Tension Force (typical mid setting)	130 N
Typical Operating Force (Rope pulled)	< 125N. < 300mm deflection
Mechanical Life	1,000,000 operations
Weight	XER1022, XER1032 (heavy duty) dual 1320 g. single 1100 g. XER6022 (standard duty) 880 g XER6022-SS 1635 g
Electrical	
Ex Classification	II 2 G EEx d II C T6
Certificates	Baseefa11ATE0267X IECEx BAS 11.0133X
Contact Configuratoins	2NC, 1 NC + 1NO, 2NC + 2NO, 3NC + 1NO
Safety Contacts	1 N/C , 2NC
Rated Voltage AC15	400 VAC 250 VDC 250 VDC
Rated Curent CD13	2A AC 4A AC 0.15A DC
AC Ratings (switching)	250V 125V
Resistive	5A 5A
Inductive	3A 3A
DC Ratings (switching)	250V 125V 30V
Resistive	0.4A 0.8A 7A
Inductive	0.03A 0.06A 5A
Electric Life	1,000,000 operations

Exclusion of Liability Under the Following Circumstances

incorrect use
non-compliance with safety regulations
installation and electrical connection not performed by authorized personnel.
failure to perform functional checks.

EC Declaration of Conformity

The manufacturer named below herewith declares that the product fulfills the provisions of the directive(s) listed below and that the related standards have been applied.

OMRON Scientific Technologies Inc.
6550 Dumbarton Circle
Fremont, CA 94555, U.S.A.

Directives applied:
Machinery directive 2006/42/EC
Low Voltage directive 2006/95/EC
Potential Explosive Atmosphere 94/9/EC
RoHS directive 2011/65/EC

Standards applied:
EN 60947-1:2007+A1:2011
EN 60947-5-1:2004+A1:2009
EN 60947-5-5:1997+A1:2005
EN 60204-1:2006+A1:2009
EN 60079-0:2011
EN 60079-1:2007
EN 60079-31:2009
ISO 13850:2006
ISO 13849-1
EN50013

Fremont, March 2013

Marty Krikorian
Director, Quality Control

Information with regard to UL 508	Use polymeric conduit only. Use copper conductors only. Electrical rating: A300. Type 1 enclosures
Approvals	CE, ATEX per EC-Type Examination



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