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EVACUATION ALARMS

P/Ns . ALX3O_IS_EV, AL24X3O_EV,
AL24X3G_EV_JB

RINGWAY EVACUATION ALARMS

DESCRIPTION:

The Ringway Evacuation Alarm units are two-wire audible and visual evacuation / warning alarms that can be distributed over a wide area (refer to specs. over page) and be line-powered from the single controller source. The alarm units can typically provide overlapping performance at 100m spacings. The alarm units have two states and each alarm unit on the two-wire circuit is in the same state as the next alarm at any given moment (all connected in parallel). The two States can be summarized as follows:

1: Standby State: In the Standby State each alarm unit emits a continuous green light from a LED tower. The condition allows personnel in visual range to see that the alarm unit and the alarm circuit is powered and in the Standby State.

2: Alarm State: In the alarm state each unit on the system emits a two-toned Piezoaudible alarm and a Red Flashing visual alarm. The tone sequence is based on a familiar international pattern used for building evacuation.

The alarm state can be activated (changed from Standby State to Alarm State) from any alarm unit on the system by simply pressing an external activation button. Alternatively it may be activated by a Remote Alarm input on the controller. An external Reset input to the ALSUP controller is required to return the system to the Standby State.

ALX3O_IS_EV and AL24X3O_EV are mounted in an orange IP65 molded housing with 2 x 20mm threaded conduit entries and terminals for both incoming and outgoing conductors. The more compact (legacy) AL24X3G_EV_JB is housed in a grey PVC IP56 enclosure and comes complete with push button, 20mm glanded entries and terminals.

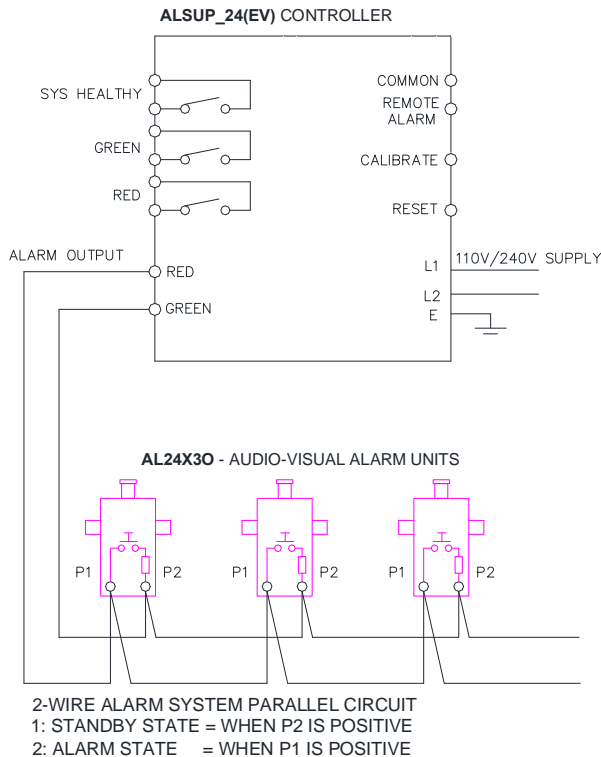
The power source and control unit for the alarms can be an ALSUP_24(EV) (24V . standard system) or ALSUP_IS(EV) (Intrinsically Safe system) as applicable.

FEATURES:

- **Simple, robust and functional.**
- **Two-wire circuit can be run in any configuration**, e.g. Star, Multi-drop etc.
- Fully **line powered** . no need for auxiliary supply.
- Low maintenance.
- Low power consumption. Easy UPS backup if required.
- System status **always visible**
- **Familiar international audible tone** pattern used for building evacuation
- Red flashing **visual alarm** in addition to audible alarm
- **Ex ia applications** possible with large radius from a central controller
- **Built-in fault detection** including loss of alarm units and Polarity/System Healthy status outputs via standard ALSUP Power supply/controllers.

APPLICATIONS:

The evacuation alarms are particularly suited to underground, hazardous, confined space and other operations that may be conducted over wide areas where no auxiliary power exists and the need to evacuate personnel is a real possibility. The main application to date has been in hard-rock tunneling applications involving a network of tunnels containing boring machines and other heavy equipment. The safety integrity of the system may be adjusted by the frequency of maintenance testing and even the inclusion of a redundant offline power supply under the control of a upstream controller like a PLC (except for I.S. applications).



SPECIFICATIONS:

Supply Voltage:	12.5 to 24V . AL24..
	12.5 to 48V. AL48..
	12.5 to 30V. I.S.
Supply Current:	8.5mA typ. (24V)
Alarm Tone:	Two tone T3
	- 2.8 / 3.7 kHz
Sound Pressure Level:	92dB @ 1m nom. (AL24/48)
	90dB @ 1m nom. (12.5V) ¹
	83dB @ 1m nom (I.S.,12.5V)
Visual Signal:	Red flashes, Constant green
Luminous Intensity:	3800 mcd nom. (Red) (~ 15.5V)
	750 mcd nom. (Green) (~ 15.5V)
System Length:	>3km on 5mm ² (24V)
	>1.5km on 5mm ² (I.S)
Operating Temperature Range:	-20 70°C (24/48V field devices)
	0 60°C (24V controller)
	-20 40° (I.S. system)

Dimensions:

130 (w) x 300 (h) x 100 (d) . ..X3O
 140 (w) x 230 (h) x 55 (d) . ..X3G.._JB

¹ Bus voltage drops with increased loading and distance from the controller. For maximum capacity systems bus voltage will approach 12.5V.