

December 2016

Description

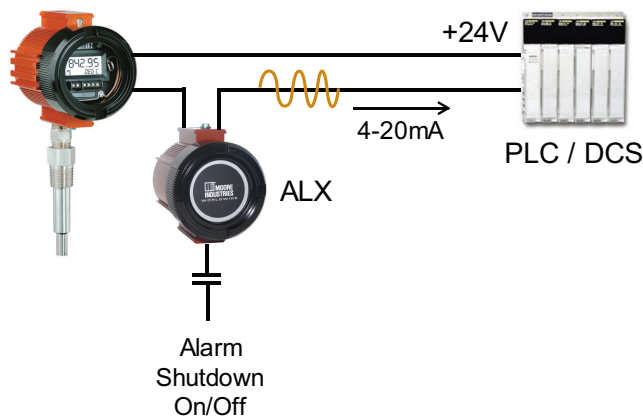
Moore Industries' economical 2-Wire Direct Current Alarm, the ALX, monitors a process signal, indicating when it reaches a user-set high or low limit. It accepts a 4-20mA or 10-50mA input, and when that input falls outside a fully adjustable preset limit, the ALX provides an alarm output (contact closure) ideal for a field alarm, shutdown or on-off control.

Accurate to within $\pm 0.1\%$ of span, the unit's bright, front panel LED indicates when an alarm condition has occurred.

The ALX is loop-powered; deriving its power from the process loop itself. It is the perfect solution for applications where an alarm is required, but wires are not available for external power. Its low loop burden—6.3V for 4-20mA input—is an additional advantage.

The ALX is offered in both DIN-style and hockey-puck housings, suitable for use with many types of Moore Industries' enclosures. The durable, aluminum DIN-style housings snaps onto G-type or Top Hat DIN-rail, and is ideal in installations where mounting space is scarce. The hockey-puck housing easily can be equipped with surface mount hardware, or installed inside any one of several explosion-proof enclosures for mounting under rugged field conditions. Both housing styles have a trip point adjustment that is conveniently located on the unit front panel.

Figure 1. Add a trip or On-Off control in the field without additional wires.



The compact, DIN-style housing of the ALX is perfect for installation in a control room. The hockey-puck housing mounts in a variety of explosion-proof enclosures.

Features

- **Field-selectable alarm function.** High, low, failsafe, or non-failsafe alarm operation is easily set in the field by positioning internal jumpers.
- **Fully adjustable trip point.** A front panel potentiometer makes setting the trip point quick and simple.
- **Front panel LED.** Provides instant visual indication of relay status (energized/de-energized).
- **Complete isolation.** Input and output are transformer-isolated, effectively preventing the introduction of ground loops.
- **A host of options.** Adjustable deadband, terminal block placement, and manual reset capability make the ALX a flexible solution to your alarm application needs.

Certifications



ALX

2-Wire Direct Current Alarm

Specifications

<p>Performance Repeatability: Trip point repeats to within $\pm 0.1\%$ of full span</p> <p>Dead Band: 1% of span, standard, adjustable deadband available with -AD option</p> <p>Response Time: 50msec, typical</p> <p>Isolation: 500Vrms, minimum</p>	<p>Performance RFI/EMI Protection: (continued) Trip point error will be less than 0.1% when exposed to 30V/m RF field strength at popular radio frequencies</p> <p>Ambient Temperature Range: -18°C to $+65^{\circ}\text{C}$ (0°F to $+150^{\circ}\text{F}$)</p> <p>Ratings Effect: $\pm 0.018\%$ per $^{\circ}\text{C}$ change ($\pm 0.01\%$ per $^{\circ}\text{F}$)</p>	<p>Adjustments Front panel, multi-turn potentiometer adjusts trip point from 0 to 100% of span; Internal, solderless jumper selects normally open or normally closed contacts</p> <p>Indicators Front panel LED is lit when internal, solid-state relay is energized</p> <p>Weight 25 g (8 oz)</p>
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Ordering Information

Unit	Input	Output	Power	Options	Housing
ALX	4-20mA 10-50mA	Field Selectable using internal, solderless jumpers H1 High alarm, failsafe (factory default) L1 Low alarm, failsafe H2 High alarm, non-failsafe L2 Low alarm, non-failsafe All alarm settings are configurations of a SPST, solid-state relay rated for 1.5A@120Vac or 125Vdc	6.3VLP 6.3V loop-powered from input side of 4-20mA loop 7.0VLP 7.0V loop-powered from input side of 10-50mA loop	-AD Adjustable deadband: external potentiometer adjusts deadband from 1 to 25% of span -FA Front-mounted terminals (DIN housing only)* -LVDC Low voltage output switches 24Vdc (solid-state relay; standard unit switches 120Vac) -MR Manual Reset; terminals on front panel to reset tripped alarm (not available with -AD option; units equipped with -MR do not have field selectable output) -RA Rear-mounted terminals (DIN housing only)* -RTB Removable terminal block (DIN housing only) *If neither option is specified, the terminals will be mounted on the front of the unit	DIN Aluminum DIN-style housing mounts on 32mm G-type (EN50035) and 35mm Top Hat (EN50022) rails HP Hockey-puck housing with spring clips for mounting in an explosion-proof enclosure FL HP housing with flanges for mounting on 3-1/2 in. relay track BH2NS* (*) or (‡) Aluminum 2-Hub, Explosion-Proof enclosure with two, 1/2-inch NPT entry ports and a solid cover BH2TS* (*) or (‡) Aluminum 2-Hub, Explosion-Proof enclosure with two, 3/4-inch NPT entry ports and a solid cover BH2MS* (*) or (‡) Aluminum 2-Hub, Explosion-Proof enclosure with two, M20 x 1.5 entry ports and a solid cover BH3NS* (*) or (‡) Aluminum 3-Hub, Explosion-Proof enclosure with three, 1/2-inch NPT entry ports and a solid cover BH3TS* (*) or (‡) Aluminum 3-Hub, Explosion-Proof enclosure with two, 3/4-inch NPT side-entry ports, one 1/2-inch NPT bottom-entry port, and a solid cover BH3MS* (*) or (‡) Aluminum 3-Hub, Explosion-Proof enclosure with two, M20 x 1.5 side-entry ports, one 1/2-inch bottom-entry port, and a solid cover SB2NS* (*) or (‡) 316 Stainless Steel 2-Hub, Explosion-Proof enclosure with two, 1/2-inch NPT entry ports and a solid cover SB2MS* (*) or (‡) 316 Stainless Steel 2-Hub, Explosion-Proof enclosure with two, M20 x 1.5 entry ports and a solid cover * Either A or E suffix (comes supplied with 2" pipe mount hardware) A suffix indicates ANZEx/TestSafe (Ex d) Flameproof approvals (i.e. BH2MGA) E suffix indicates ATEX (Ex d and tb) Flameproof approvals (i.e. BH2MGE) ‡ P suffix indicates enclosure comes equipped with base plate and U-bolts for mounting on a 2-inch pipe (i.e. BH2NGP) See BH, SB and D-BOX Datasheets for additional information. Note: There is an LED on the Hockey-Puck field-mount unit. You can use the Glass Cover on the BH or SB so you can view the LED. Change S to G, like BH2NG or SB2NG.

Ordering Information

To order, use the bold face data from the Ordering Specifications section of the table above. An example of a typical ALX model number is provided below.

When ordering, specify: Unit / Input / Output / Power / Options [Housing]
Model number example: ALX / 4-20MA / H1 / 6.3VLP / -AD [BH2NS]

ALX-HP



CE Conformant:
EMC Directive 2014/30/EC – EN 61326

ALX-HP in BH/SB2 Housing



FM Approvals (FM Global Group):
Explosion-Proof & Dust/Ignition-Proof
Class I, Division 1, Groups A*, B, C & D
Class II & III, Division 1, Groups E, F & G
Environmental Protection: NEMA 4X & IP66
T6 @ 60°C Maximum Operating Ambient
**For Group A applications, seal all conduits within 18"*



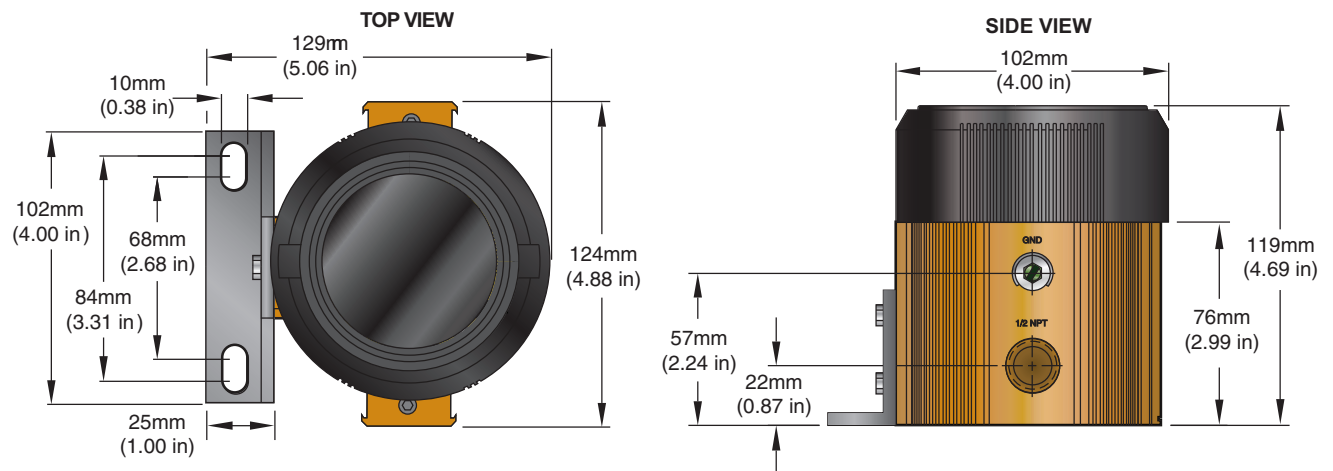
CSA Group (Canadian Standards Association):
Explosion-Proof
Class I, Division 1, Groups A*, B, C & D
Class II, III, Groups E, F & G
Type 4X, IP66
Ambient Temp. Range: -20°C to +60°C; T6
**For U.S. Group A applications, seal all conduits within 18"*



ATEX Directive 2014/34/EU (ISseP):
Explosion/Flame-Proof
⊕ II G Ex d IIC T6 Gb
⊕ II D Ex tb IIIC Db T85°C IP66

ANZEx ANZEx (TestSafe):
Explosion/Flame-Proof
Ex d IIC T6 (Tamb 60°C)

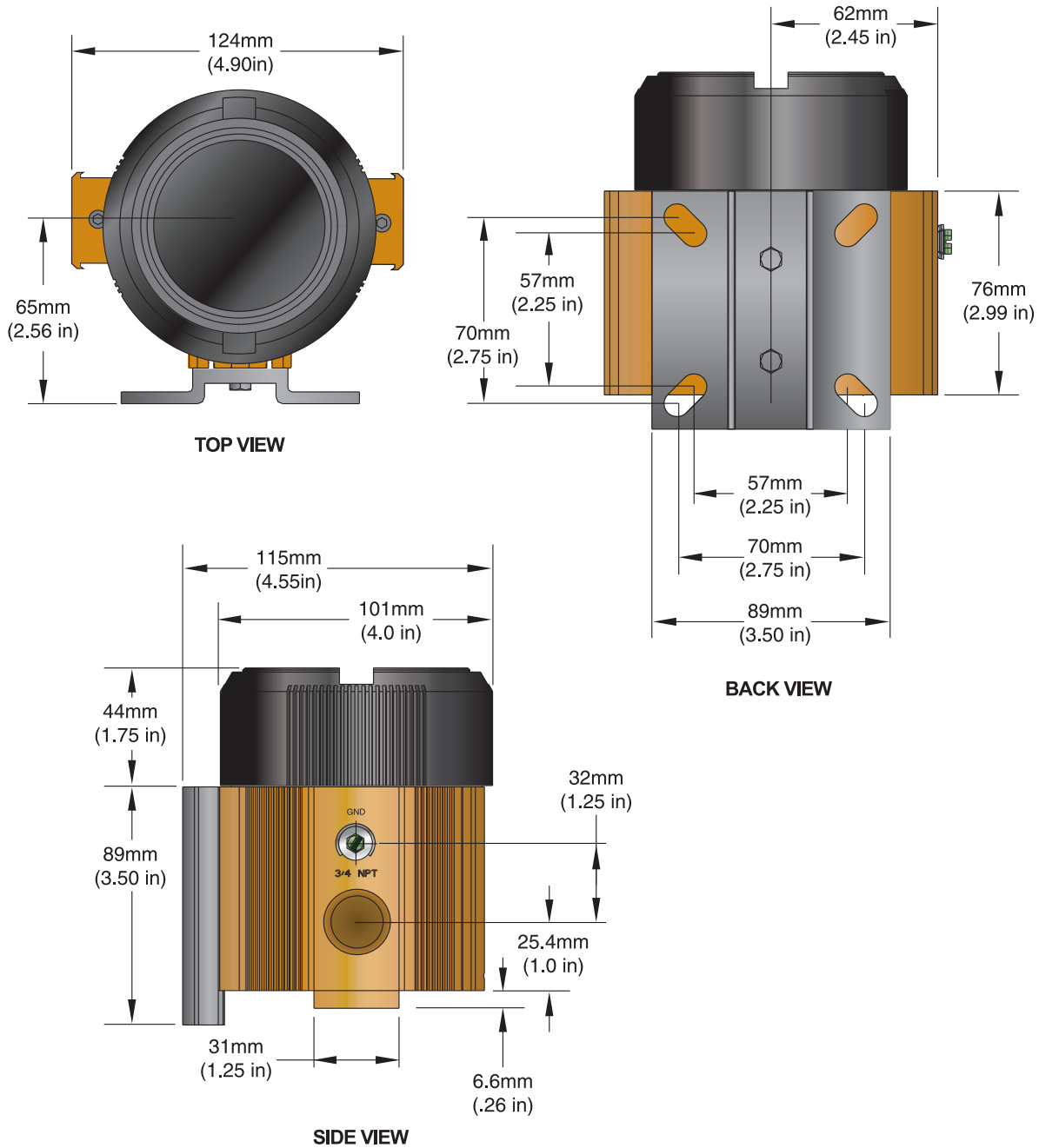
Figure 2. Dimensions of the ALX in the BH2 explosion-proof enclosure.



ALX

2-Wire Direct Current Alarm

Figure 3. Dimensions of the ALX in the BH3 explosion-proof enclosure.



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