

EXP-MS-N4X-AT-HV-V5

400W Explosion Proof Motion Sensor - 10-20' Mounting - 15'x15' Area Coverage - 170 Minute Adjustable Timer Instruction Manual

Thank you for your purchase of the EXP-MS-N4X-AT-HV-V5 Motion Sensor, the following instructions are intended for this part number only.

WARNING

TO AVOID THE RISK OF FIRE, EXPLOSION OR ELECTRIC SHOCK, THIS PRODUCT SHOULD BE INSTALLED, INSPECTED AND MAINTAINED BY A QUALIFIED ELECTRICIAN ONLY, IN ACCORDANCE WITH ALL APPLICABLE ELECTRICAL CODES.

TO AVOID ELECTRIC SHOCK:

- BE CERTAIN ELECTRICAL POWER IS OFF BEFORE AND DURING INSTALLATION AND MAINTENANCE.
- PRODUCT MUST BE CONNECTED TO A WIRING SYSTEM WITH AN EQUIPMENT-GROUNDING CONDUCTOR.

TO AVOID EXPLOSION:

- MAKE SURE THE SUPPLY VOLTAGE IS WITHIN THE VOLTAGE RATING.
- ENSURE THE MARKED T RATING IS LESS THAN THE IGNITION TEMPERATURE OF THE HAZARDOUS ATMOSPHERE.
- DO NOT OPERATE IN AMBIENT TEMPERATURES ABOVE THOSE INDICATED ON THE PRODUCT NAMEPLATE.
- DO NOT OPERATE IF THE LENS, CORD, SEALS, HOUSING, RECEPTACLES, ETC. IS CRACKED OR DAMAGED. IF SO, DISCONTINUE USE AND CONTACT MANUFACTURER FOR REPLACEMENT PARTS.
- ALL FASTENERS SHOULD BE PROPERLY SEATED.

Installation

This unit is easily wall mounted via integral mounting bracket, which can be adjusted -90° to +30° vertically after installation. The explosion proof housing provides two 1/2" or 3/4" hub openings located on either side of the housing for running electrical conductors in a feed through configuration.

This unit is designed to operate on 120V, 208V, 220V, 240V, or 277V AC electrical circuits. Voltage is chosen when ordering. We also carry low voltage 12-24V AC or DC electrical systems. This motion sensor is suitable for use in environments where combustible dusts and particulates may be present. 1/2" or 3/4" NPT tapped conduit openings are provided on either of the unit in feed through versions while dead end versions have a single conduit hub, providing easy and secure connection to main power line supplies. Please refer to the wiring diagram included with your unit for completing wiring connections. Always follow all applicable local and national electrical and building code when installing.

The EXP-MS-N4X-AT-HV-V5 operates like a standard on/off light switch. The circuit is normally open when no motion is present. Once motion is detected, the internal switch changes to a closed circuit, allowing voltage to pass through the sensor and power the device(s) at the other end.

IMPORTANT: persons or objects moving towards the sensor are detected best.

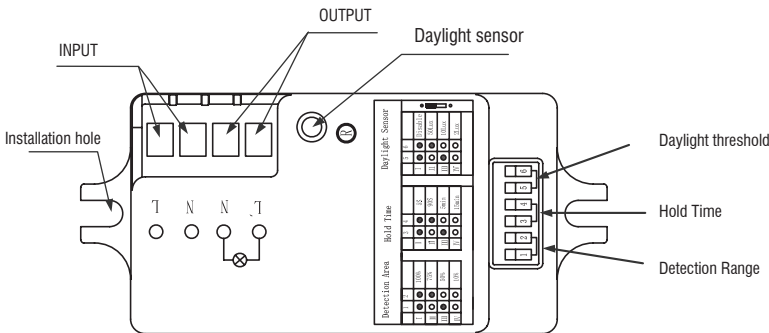
NOTE: the high frequency of the output of this sensor is <10Mw – that is just one 100th of the transmission power of a mobile phone or the output of a microwave oven.

Motion Sensor

Warning: Be sure power is off at the breaker before opening enclosure!

Motion sensor settings are fully adjustable using the dip switch settings on the front of the sensor. This will require you to open the enclosure and remove the housing that contains the sensor inside. To do this:

- Loosen the set screw holding the front cover of the enclosure in place and turn it counterclockwise to remove the cover.
- Remove the housing from the enclosure and loosen the screws to free the motion sensor. **Note:** Dip switches may be accessible from the side without loosening the housing to free motion sensor, but this will make it much easier.
- Adjust dip switches to desired settings, **see below for settings particulars.**
- Tighten screws of housing back down with sensor positioned in such a way that both sensors on top are unobstructed. Pass wiring through notch cut in the back of the housing so it is not pinched when placing back into the enclosure.
- Place housing assembly back down into the enclosure, passing wires through hub, and replace the front cover. Tighten set screw to hold front cover in place. Take care not to pinch any wires when doing this.



Dip Switch Settings

The diagram shows a red 6-position dip switch. A legend indicates that a filled circle represents 'Switch UP' and an open circle represents 'Switch DOWN'.

●	●	100%
○	●	75%
●	○	50%
○	○	10%

●	●	5s
○	●	90s
●	○	5min
○	○	15min

●	●	Disable
○	●	50lux
●	○	10lux
○	○	2lux

Detection area

Detection area means detection coverage. It can be adjusted by combining DIP switches for specific application.

Hold-time

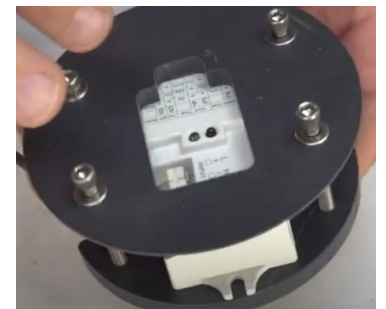
Hold-time means the time period the light will be ON after the last detection.

Daylight threshold

Daylight sensor prior to motion sensor. Set threshold for specific needs. If Disable, only motion sensor works.

Timer

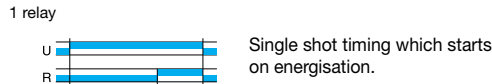
This unit is also equipped with a programmable timer that works in conjunction with the motion sensor to operate the associated fixture for a certain amount of time after motion is last detected. This timer is adjustable using the dials and screws on the face of the timer itself to adjust the settings, and this requires removal of the cover and housing just as outlined above for the motion sensor. Once cover and housing have been removed, refer to the tables that follow to setup your timer as desired.



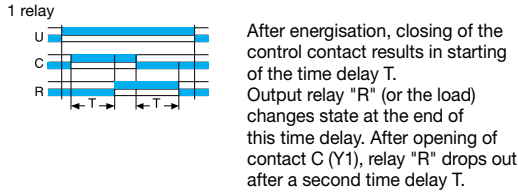
Timer Settings

U : Supply
R : Output relay or load
T : Timing
 ∞ : Infinity
C (Y1) : Command

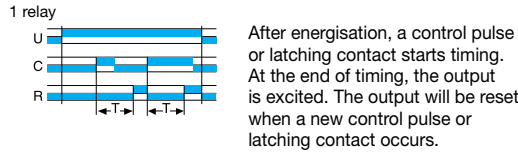
• A function: Delay on energisation



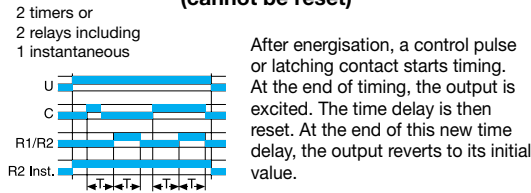
• Ac function: Timing after closing and opening of control contact



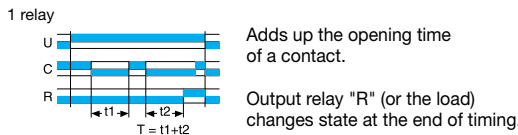
• Ad function: Delay on energisation (cannot be reset)



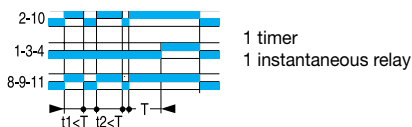
• Ah function: Single shot flip-flop (cannot be reset)



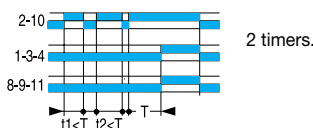
• At function: Timing on energisation with memory



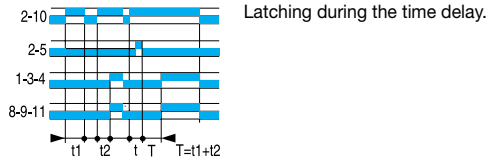
• A1 function: Delay on energisation



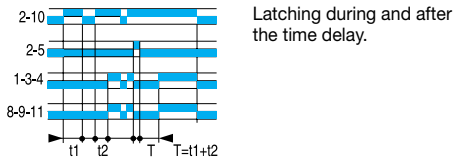
• A2 function: Delay on energisation



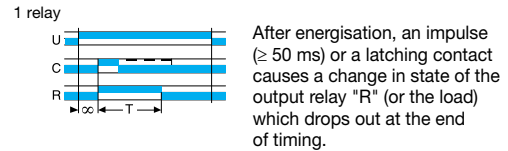
• AM function: Delay on energisation



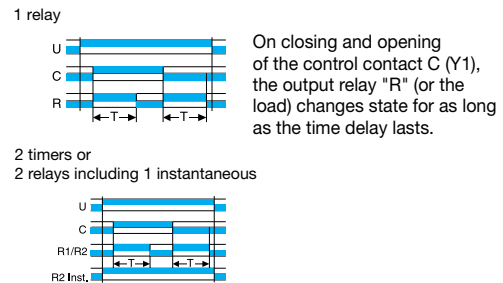
• AMt function: Delay on energisation



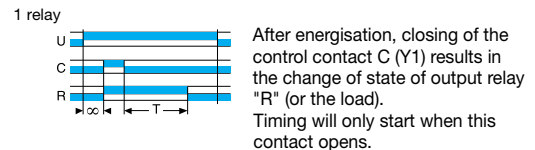
• B function: Timing on impulse (one shot) - Shaping (cannot be reset)



• Bw function: Pulse output (adjustable)



• C function: Timing after impulse True delay off (without auxiliary power supply)



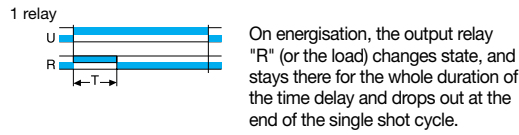
• D or Di functions: Symmetrical flashing

Repetitive cycle which alternately sets the output relay "R" (or the load) to operating and rest position for equal periods of time.

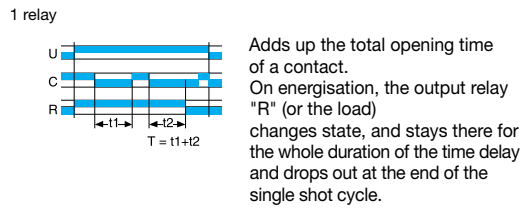


U : Supply
R : Output relay
or load
T : Timing
 ∞ : Infinity
C (Y1) : Command

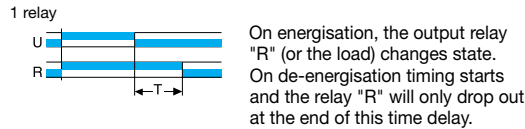
H function: Timing on energisation - Pulse output (adjustable)



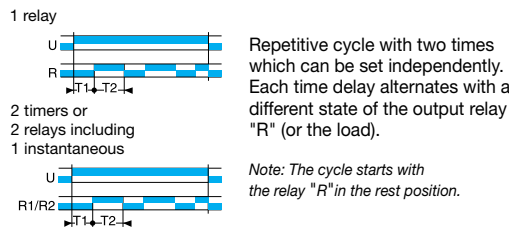
Ht function: Delay on energisation with memory



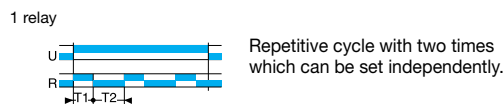
K function: Delay on de-energisation True delay off (without auxiliary power supply)



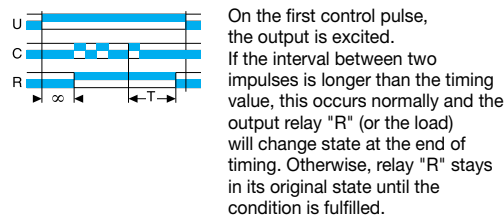
L function: Asymmetrical flashing



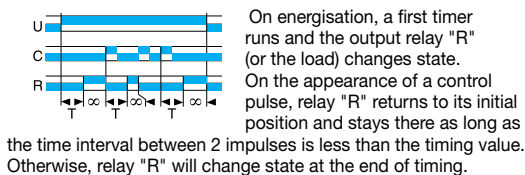
Li function: Asymmetrical flashing



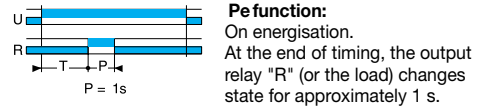
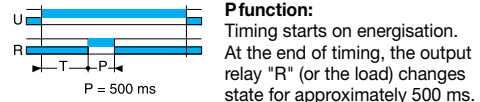
N function: "Safe-guard"



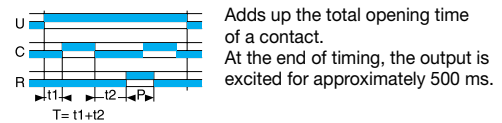
O function: "Delayed safe-guard"



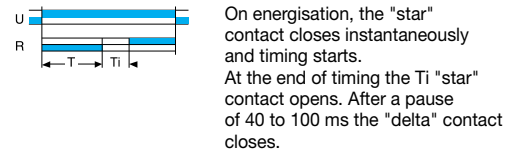
P and Pe functions: Impulse counter (delay on)



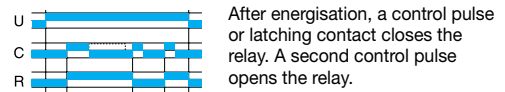
Pt function: Impulse counter (delay on)



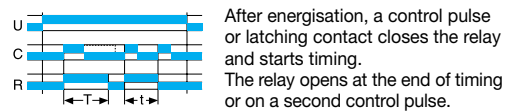
Q function: "Star-delta" starting



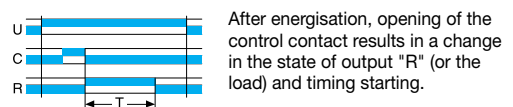
TL function: Impulse relay



Tt function: Timed impulse relay



W function: Timing after pulse on control contact



USE AND CARE

Unauthorized modification may impair the function and/or safety of this device and could affect the life of the equipment. Always check for damaged or worn out parts before using the device. Store it in a secure place out of the reach of children when not in use. Inspect for good working condition prior to storage and before re-use.

REPLACEMENT PARTS

The EXP-MS-N4X-AT-HV-V5 is designed to provide years of reliable performance. Should the need for replacement parts arise, please contact Larson Electronics.



THESE INSTRUCTIONS MAY NOT COVER ALL DETAILS OR VARIATIONS OF THIS PRODUCT FOR YOUR EQUIPMENT OR INSTALLATION REQUIREMENTS. SHOULD FURTHER INFORMATION NOT COVERED BY THESE INSTRUCTIONS BE REQUIRED, PLEASE CONTACT LARSON ELECTRONICS BY EMAIL AT SALES@LARSONELECTRONICS.COM OR BY PHONE AT 1-877-348-9680 FOR FURTHER ASSISTANCE.

PLEASE VISIT LARSONELECTRONICS.COM FOR **WARRANTY** AND **RETURN** INFORMATION.