JDRF

ELECTROMAG

AUTONOMY SWITCHPACK DATASHEET

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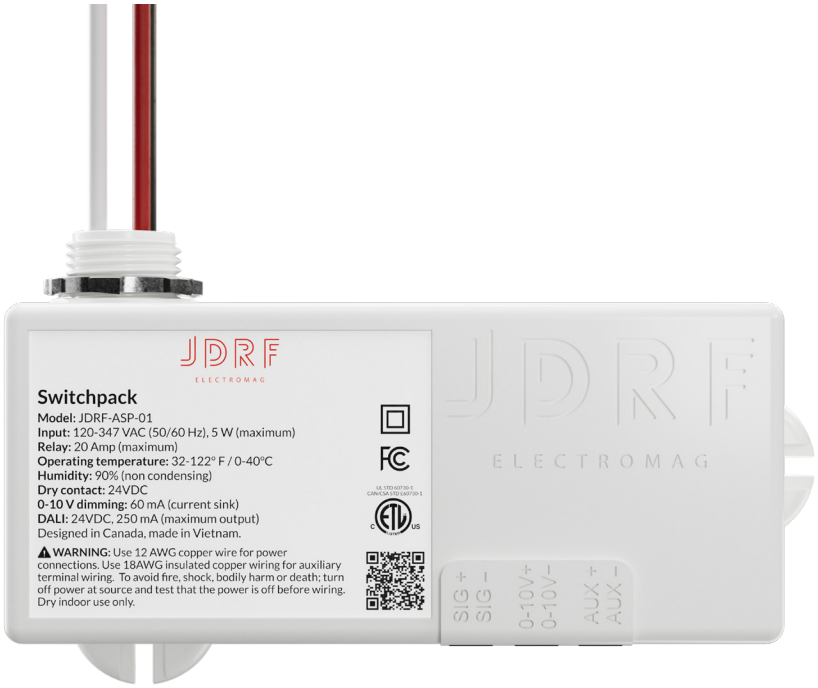
OVERVIEW



AUTONOMOUS LIGHTING CONTROL

The Autonomy Switchpack connects luminaires that have a 0-10 V interface to the Autonomy Lighting Control System by JDRF Electromag. It is ideal for lighting that does not support a fixture-mount sensor but requires integration into the Autonomy Lighting Control system. The built-in relay is rated for 20 Amp (120-347 V) and automatically pairs with up to 4 Autonomy Sensors.

ON-BOARD HARDWARE

Each Autonomy Switchpack contains the following on-board hardware:

1. 20 Amp relay (120-347 V) with zero-cross detection switching.
2. DALI power and data link that supports four (4) Autonomy Sensors.
3. 0-10 V control interface to LED driver(s).
4. 2.4 GHz wireless radio.
5. Integrated power meter (2% accuracy).
6. Dry contract input (24 VDC).

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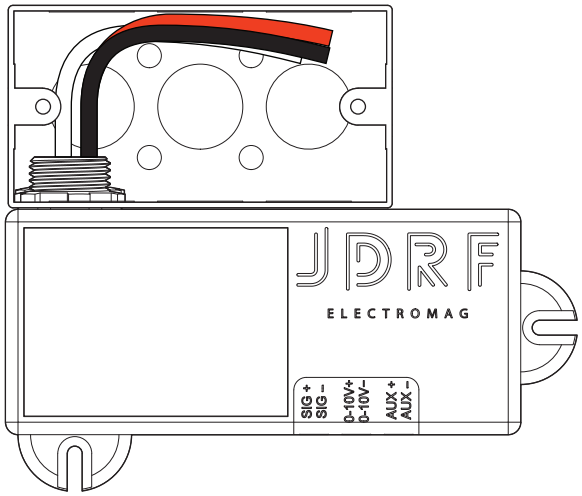
OVERVIEW

APPLICATION AREAS	Indoor commercial lighting for general illumination, architectural, and retail applications. Provides switched off or dim-to-off control of 0-10 V lighting.
LIGHTING TYPE	Works with linear, suspended, recessed, track, down/compact, and other types of light fixtures. Can be used with emergency lighting in conjunction with the appropriate UL 924 equipment.
SYSTEM ARCHITECTURE	Decentralized network and system topology, does not have any single-points-of-failure and does not require external control hardware or an Internet connection.
POWER METERING	Contains an integrated power meter that measures and reports instantaneous power consumed by the controlled lighting load (accuracy of +/– 2%).
MOUNTING	Easily mounts to junction box or knock-out on luminaire.



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SPECIFICATIONS

ELECTRICAL

1. Input Voltage: 120-347 VAC (50/60Hz).
2. Relay: 20 Amp AC (general purpose, LED driver).
3. 0-10 V dimming output (IEC 60929 Annex E): sinks up to 60 mA (40 µA maximum circuit leakage to line).
4. Internal Power Consumption: 5 W (maximum).
5. DALI (to Autonomy Sensors): 250 mA, four (4) Autonomy Sensors maximum.
6. Dry contact: 12-24 VDC input (normally open).

WIRELESS

1. Communication Protocol: Wireless Mesh.
2. Frequency: 2.4GHz.
3. Data Rate: 2 MBps (maximum).
4. Communication Range: 30.5 m (100 ft) line-of-sight to nearest device.

ENVIRONMENT

1. Operating temperature: 0-40°C (32-122° F).
2. Humidity: 0-90% (non-condensing).
3. Environment: dry indoor use only.

STANDARDS

1. cETLus listed UL60730.
2. UL2043 Plenum Rated.
3. FCC Class A Part 15 Subpart C.
4. Ingress Protection Rating of IP64.

WARRANTY

1. Standard: 5-year limited manufacturers warranty.
2. Extended: contact sales representative for details.

ORDERING INFO

1. JDRF-ASP-01-W-V01-1P (Autonomy Switch Pack, White, Commercial FW, 1-Pack).
2. JDRF-ASP-01-W-V31-1P (Autonomy Switch Pack, White, Retail FW, 1-Pack).

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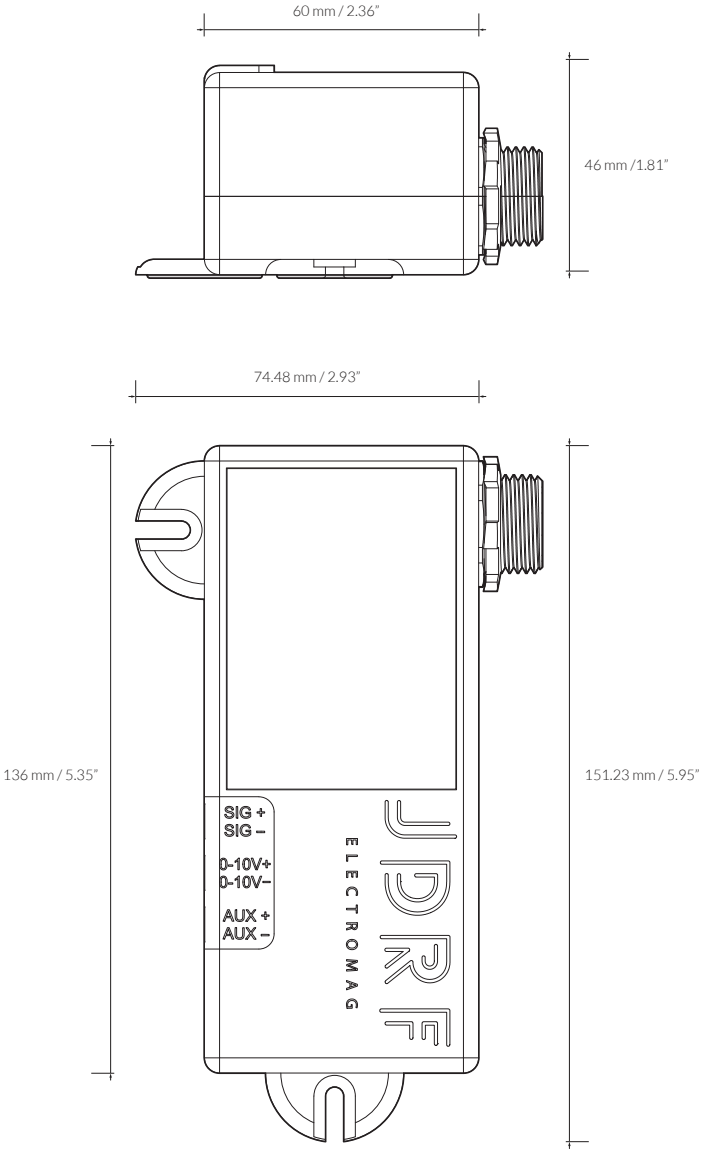
DIMENSIONS

AUTONOMY
SWITCHPACK



INSTALLATION

WIRING

Risk of Fire, Electrical Shock, Cuts or other Casualty Hazards
Installation and maintenance of this product must be performed by a qualified electrician. This product must be installed in accordance with the applicable installation code by a person familiar with the construction and operation of the product and hazards involved.

Before installing or performing any service, the power MUST be turned OFF. All installations should be in compliance with the National Electric Code and all regional, state, and local codes. Due to sharp edges, handle with care.

Failure to comply with these instructions may result in death, serious bodily injury and property damage.

DISCLAIMER OF LIABILITY

JDRF Electromag Engineering Inc. assumes no liability for damages or losses of any kind that may arise from the improper, careless, or negligent installation, handling or use of this product.

NOTICE

Product may become damaged and/or unstable if not installed properly. Designed for indoor installation and use only. Specifications and dimensions subject to change without notice.

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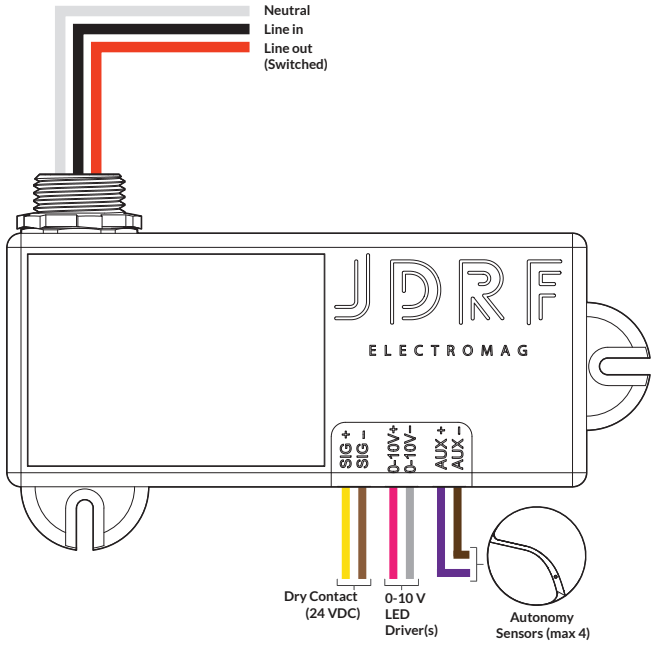
ELECTRICAL WIRING

Warning: The Autonomy Switchpack connects to line voltage and must be wired in accordance with the regulations of local, region, and national electrical code. Where connecting The Autonomy Switchpack to Autonomy Sensor, use a pair of non-twisted, non-shielded, non-polarized plenum (FT6) rated wires. Maximum distance between Autonomy Switchpack and Autonomy Sensors is 100 ft. / 30.5 m. Maximum of four (4) Autonomy Sensors per Autonomy Switchpack connected in a parallel bus (daisy-chain) topology.



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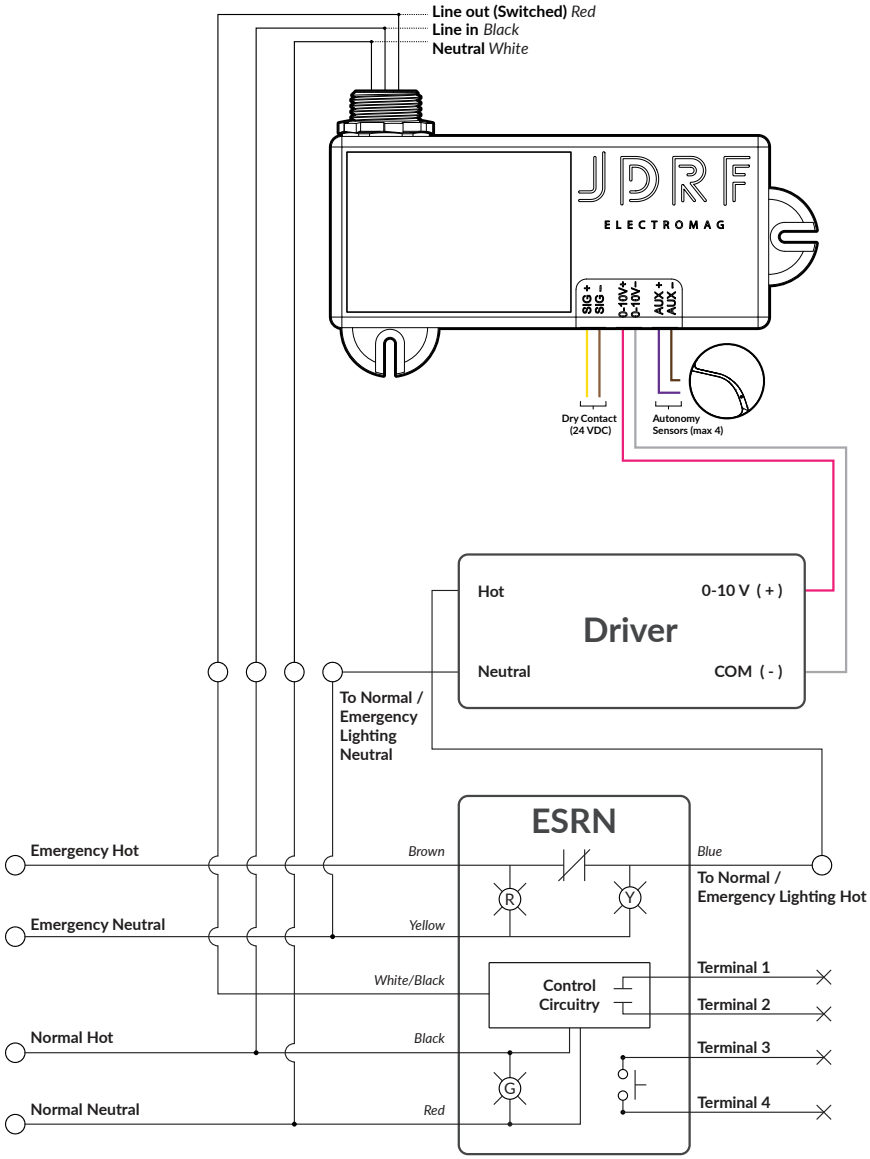
ELECTRICAL WIRING

WARNING

Emergency Lighting: The Autonomy Switchpack may be connected to a UL 924-listed emergency bypass relay, such as the ESRN series by Functional Devices, to meet emergency egress lighting requirements. This configuration ensures that emergency luminaires remain energized during normal power loss. Refer to the wiring diagram below for proper installation.



AUTONOMY SWITCHPACK DATASHEET

ISED & FCC

ISED GENERAL STATEMENTS

ISED Non-Interference Disclaimer

This device contains licensed transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licensed RSS(s). Operation is subject to the following two conditions:
(1) This device may not cause interference.
(2) This device must accept any interference, including interference that may cause undesired operation of the device.
This device complies with the Canadian ICES-003 Class A specifications. CAN ICES-003(A) / NMB-003 (A).

L'émetteur/récepteur autorisée contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio autorisée. L'exploitation est autorisée aux deux conditions suivantes :
(1) L'appareil ne doit pas produire de brouillage;
(2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.
Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

ISED RF Exposure Statement

This equipment complies with ISED RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm (7.9 inches) between the radiator and any part of your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Cet équipement est conforme aux limites d'exposition aux radiations ISED CNR-102 établies pour un environnement non contrôlé. Une distance de séparation d'au moins 20 cm doivent être maintenue entre l'antenne de cet appareil et toutes les personnes. Lanceurs ou ne peuvent pas coexister cette antenne ou capteurs avec d'autres.

ISED/FCC RF Exposure Statement

This equipment complies with FCC and ISED RSS-102 radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. In order to avoid the possibility of exceeding the FCC and ISED RSS-102 radio frequency exposure limits, this equipment should be installed and operated with minimum distance 20 cm (7.9 inches) between the antenna and your body during normal operation. Users must follow the specific operating instructions for satisfying RF exposure compliance.

Cet équipement est conforme aux limites d'exposition aux rayonnements FCC et ISED CNR-102 établies pour un environnement non contrôlé. Cet émetteur ne doit pas être installé ou utilisé en conjonction avec une autre antenne ou un autre émetteur. Afin d'éviter la possibilité de dépasser les limites d'exposition aux radiofréquences FCC et ISED, cet équipement doit être installé et utilisé avec une distance minimale de 20 cm (7.9 pouces) entre l'antenne et votre corps pendant le fonctionnement normal. Les utilisateurs doivent suivre les instructions spécifiques d'utilisation pour respecter la conformité à l'exposition aux RF.

ISED & FCC

FCC STATEMENTS FOR CLASS A DIGITAL DEVICE

FCC Compliance Statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) this device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation. Please note that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
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FCC RF Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, this equipment should be installed and operated with minimum distance 20 cm (7.9 inches) between the antenna and your body during normal operation. Users must follow the specific operating instructions for satisfying RF exposure compliance.

ISED/FCC RF Exposure statement

This equipment complies with FCC and ISED RSS-102 radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. In order to avoid the possibility of exceeding the FCC and ISED RSS-102 radio frequency exposure limits, this equipment should be installed and operated with minimum distance 20 cm (7.9 inches) between the antenna and your body during normal operation. Users must follow the specific operating instructions for satisfying RF exposure compliance.

Cet équipement est conforme aux limites d'exposition aux rayonnements FCC et ISED CNR-102 établies pour un environnement non contrôlé. Cet émetteur ne doit pas être installé ou utilisé en conjonction avec une autre antenne ou un autre émetteur. Afin d'éviter la possibilité de dépasser les limites d'exposition aux radiofréquences FCC et ISED, cet équipement doit être installé et utilisé avec une distance minimale de 20 cm (7.9 pouces) entre l'antenne et votre corps pendant le fonctionnement normal. Les utilisateurs doivent suivre les instructions spécifiques d'utilisation pour respecter la conformité à l'exposition aux RF.