

# Data Sheet 2.03 Issue B

# EPS10-1 and EPS10-2 Alarm Pressure Switches

#### General Description

EPS10 Series pressure switches are designed for use in wet, dry, deluge, and pre-action automatic sprinkler systems to indicate a discharge from a sprinkler. Switches have a maximum service pressure rating of 20.1 bar (300 psi) feature field adjustable pressure sensitivity to provide an alarm response between 0.2 and 1.3 bar (4 and 20 psi). Switch is activated by any flow of water equal to or in excess of the discharge from one sprinkler head and are factory adjusted to operate at a pressure of 0.2 - 0.5 bar (4 – 8 psi) on rising or falling pressure. The EPS10-1 has a single SPDT switch while the EPS10-2 model contains two SPDT switches with contacts rated at 10.0 Amp @ 125/250 VAC and 2.5 Amp @ 6/12/24 VDC. The pressure adjustment wheel requires no special tools and does not affect switch synchronization on the EPS10-2.

Switches are provided with a  $\frac{1}{2}$  "NPT male pressure connection to be connected to the alarm check valve of a "wet" sprinkler system, into the intermediate chamber of a "dry" system, or to a pre-action or deluge valve. Switches provide 1 knockout type and 1 open hole for  $\frac{1}{2}$  conduit fitting attachment and a ground screw provision for electrical grounding. The switch enclosure is weatherproof and carry a UL 4x/NEMA 4 rating when used with proper electrical fittings and conduit. The cover incorporates tamper-resistant screws.

EPS10 Series pressure switches should be installed in accordance with appropriate NFPA standard or in line with rules and regulations of authority having jurisdiction

Sensitivity adjustment wheel, no special tools required

Both one- and two-switch models available (EPS10-1 and

Reinforced diaphragm resists pressure spikes

Two conduit entrances

Max. Working Pressure 20.1 Bar (300 PSI)

UL Listed, FM Approved, LPCB, VdS



#### Specification

| Maximum Working<br>Presure           | 20.1 bar (300 psi)  |
|--------------------------------------|---|
| Maximum Adjustment<br>Pressure Range | 0.2 to 1.3 bar (4 to 20 psi)  |
| Differential                         | Approximately 0.2 bar (3 psi) throughout range  |
| Factory Setting                      | Operates at rising pressure 0.2 to 0.5 bar<br>(4 to 8 psi)  |
| Switch Contact Ratings               | EPS10-1: One set SPDT (Form C)<br>EPS10-2: Two sets SPDT (Form C)<br>10.0 A, ½ HP @ 125/250 VAC<br>2.5 A @ 6/12/24 VDC  |
| Pressure Connection                  | ½″ NPT male glass reinforced nylon  |
| Dimensions                           | 130 × 84 × 108 mm<br>(5.12″ H × 3.325″ W × 4.250″ L)  |
| Operating Temperature<br>Range       | Indoor or outdoor use:<br>-40°C to 71°C (-40°F to 160°F)  |
| Cover Tamper Switch                  | UL Models: Optional P/N 546-8000<br>ULC Models: Factory Installed   |
| Enclosure                            | Rated UL 4x, NEMA 4 for indoor or outdoor<br>use  |
| Shipping Weight                      | 0.54 Kg (1.2 lbs.)  |
| Service Use                          | Automatic Sprinkler: NFPA 13<br>One or Two Family Dwelling: NFPA 13D<br>Residential Occupancies up to 4 Stories:<br>NFPA 13R<br>National Fire Alarm Code: NFPA 72 |
| Warranty                             | 3 years   |

Manufactured by System Sensor who have UL listing, FM Approval, LPCB and VdS Certificates

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**Features** 

FPS10-2)

Pressure Rating

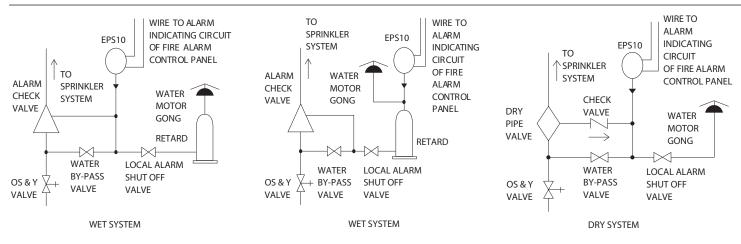
**Approvals** 

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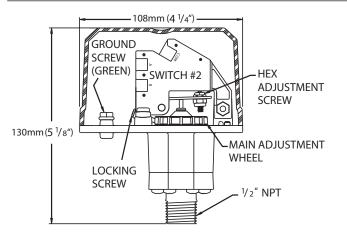
Rapidrop Global Ltd reserves the right to change the design, materials and specifications without notice to continue product development



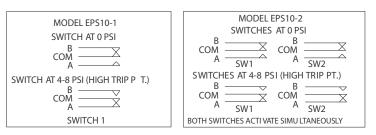
### Typical Sprinkler Applications



## Pressure Switch Basic Dimensions



## **Electrical Connections**



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## EPS10-1 and EPS10-2 Alarm Pressure Switches

### Ordering Information

| EPS10-1                       | Alarm Waterflow Pressure Switch, One SPDT, 0.2 - 1.3 bar (4-20 psi)                             |
|-------------------------------|---|
| EP\$10-2                      | Alarm Waterflow Pressure Switch, Two SPDT, 0.2 - 1.3 bar (4-20 psi)                             |
| EPSA10-1 ULC/Canadian Version | 25mm (1") Residential valve set c/w locking ball valve & pressure gauge                         |
| EPSA10-2 ULC/Canadian Version | 32mm (1 $^{\prime\prime}\!$ |
| Replacement Parts             |   |
| \$07-66-02                    | Replacement Tamper Screws for Cover of EPS  |
| WFDW                          | Replacement Tamper Proof Wrench for Cover of EPS  |
| 546-8000                      | Cover Tamper Switch for EPS Series  |
|                               |   |

#### Important Installation Information

- Rapidrop *Alarm Pressure Switches* must only be installed by a competent person in accordance with requirements of the local authority having jurisdiction. Deviations from these standards will invalidate warranty.
- It is the responsibility of the installing contractor to include a copy of this document in the sprinkler system installation, operating and maintenance manual.
- Alterations to Rapidrop products will void any warranty.
- Alarm Pressure Switches should be inspected and maintained during routine sprinkler system inspections by a competent person in accordance with national codes/requirements.
- Failure to follow these instructions could cause improper operation, resulting in personal injury and/or property damage.
- For further details and technical support please contact your Rapidrop sales representative.

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