



# National Fire Equipment Ltd.

## EPSA10-1 AND EPSA10-2 Alarm Pressure Switches

**System Sensor EPSA10 Series switches are designed for use in wet, dry, deluge, and pre-action automatic sprinkler systems to indicate a discharge from a sprinkler**



### Features

- Sensitivity adjustment wheel, no special tools required
- Reinforced diaphragm resists pressure spikes
- Two conduit entrances
- Both one- and two-switch models available
- NEMA 4 rate

The EPSA10-1 has a single SPDT switch while the EPSA10-2 model contains two SPDT switches. The EPSA10 Series features field adjustable pressure sensitivity to provide an alarm response between 4 and 20 psi. It is factory set to respond at 4 – 8 psi on rising or falling pressure. The pressure adjustment wheel requires no special tools and does not affect switch synchronization on the EPSA10-2. The EPSA10 Series switches are NEMA 4 rated.

### Specifications, EPSA10-1 and EPSA10-2

#### Architectural/Engineering Specifications EPSA10-1 (SPDT), EPSA10-2 (2/SPDT)

Model shall be an EPSA10-1 or EPSA10-2 pressure type waterflow switch as manufactured by System Sensor. They shall be installed on the sprinkler system with connection as shown on the drawings and/or as specified herein. Pressure switches shall be of the bellows-activated type. Switches shall have a maximum service pressure rating of 250 psi and shall be factory adjusted to operate at a pressure of 4 – 8 psi. There shall be one (1) or two (2) SPDT contacts rated at 10.0 Amp @ 125/250 VAC and 2.5 Amp @ 6/12/24 VDC. The contractor shall furnish and install, where indicated on the plans, pressure switches according to appropriate NFPA standards. Switches shall be provided with a 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. They shall be activated by any flow of water equal to or in excess of the discharge from one sprinkler head. Switches shall provide 1 knockout type and 1 open hole for 1/2" conduit fitting attachment and a ground screw provision for electrical grounding. The switch enclosure shall be weatherproof and carry a UL 4x/NEMA 4 rating when used with proper electrical fittings and conduit. The cover shall incorporate tamper-resistant screws. All detectors shall be listed by ULC for indoor or outdoor use.

### Agency Listings



**National Fire  
Equipment Ltd.**

TORONTO: (905) 761-6355  
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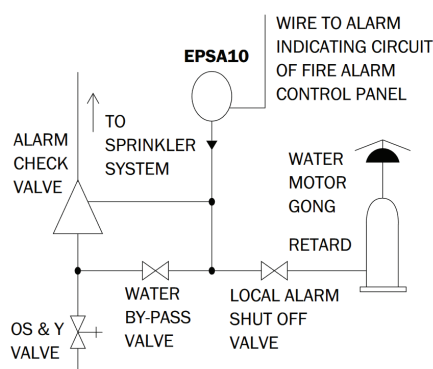
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## Specifications, EPSA10-1 and EPSA10-2 (Cont)

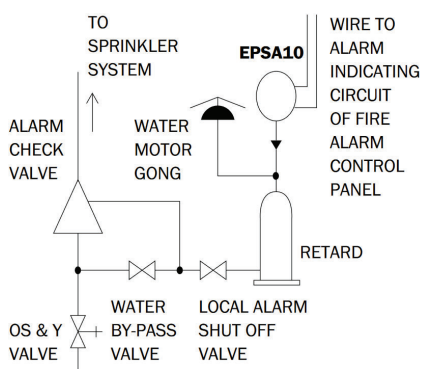
### Physical/Operating Specifications

Maximum Operating Pressure	250 psi	Operating Temperature Range	Indoor or outdoor use: -40°C to 71°C (-40°F to 160°F)
Maximum Adjustment Pressure Range	4 to 20 psi	Cover Tamper Switch	UL Models: Optional P/N 546-8000 ULC Models: Factory Installed
Differential	Approximately 3 psi throughout range	Enclosure	Rated UL 4x, NEMA 4 for indoor or outdoor use
Factory Setting	Operates at rising pressure 4 to 8 psi	Shipping Weight	1.2 lbs. (.54 Kg)
Switch Contact Ratings	EPSA10-1: One set SPDT (Form C) EPSA10-2: Two sets SPDT (Form C) 10.0 A, ½ HP @ 125/250 VAC 2.5 A @ 6/12/24 VDC	Service Use	Automatic Sprinkler: NFPA 13 One or Two Family Dwelling: NFPA 13D Residential Occupancies up to 4 Stories: NFPA 13R National Fire Alarm Code: NFPA 72
Pressure Connection	½" NPT male glass reinforced nylon	Warranty	3 years
Dimensions	5.12"H × 3.325"W × 4.250"L (13.0 cm × 8.4 cm × 10.8 cm)		

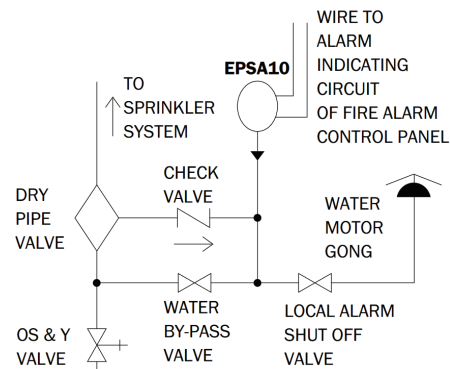
## Typical Sprinkler Applications



WET SYSTEM

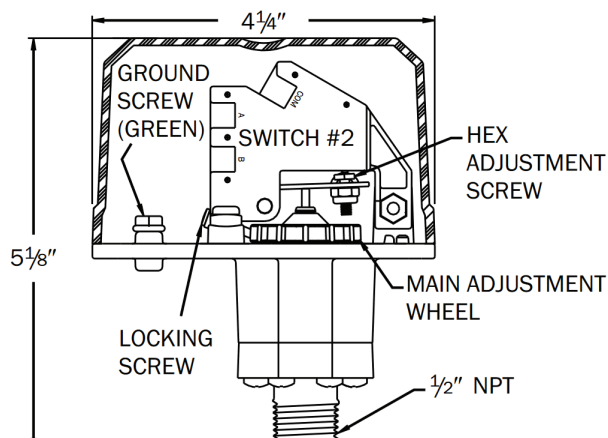


WET SYSTEM

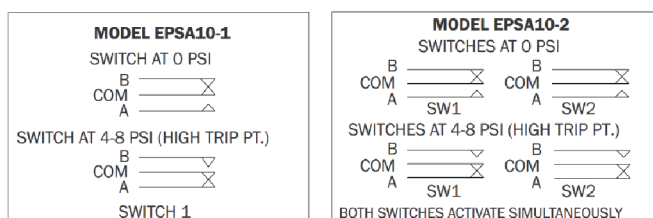


DRY SYSTEM

## Pressure Switch Basic Dimensions



## Electrical Connections



### Physical/Operating Specifications

7050101	250 psi
SSEPSA10-2	4 to 20 psi
<b>Replacement Parts</b>	
S07-66-02	Replacement Tamper Screws for Cover of EPS
WFDW	Replacement Tamper Proof Wrench for Cover of EPS
546-8000	Cover Tamper Switch for EPS Series



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# National Fire Equipment Ltd.

## EPSA40-1 AND EPSA40-2 Supervisory Pressure Switches

**System Sensor EPSA40 Series switches are designed for use in dry pipe systems or pressure tanks and water pressure supplies of automatic water control valves.**



### Features

- Sensitivity adjustment wheel, no special tools required
- Reinforced diaphragm resists pressure spikes
- Two conduit entrances
- Both one- and two-switch models available
- NEMA 4 rate

The EPSA40-1 has a single SPDT switch while the EPSA40-2 model contains two SPDT switches. The EPSA40 Series features field adjustable pressure sensitivity to provide an alarm response between 10 and 100 psi. All models are factory set for use in a nominal 40 psi system. The EPSA40-1 is factory set to respond at 30 psi at decreasing pressure while the EPSA40-2 is factory set to respond at 50 psi on rising pressure and 30 psi at decreasing pressure. The pressure adjustment wheel requires no special tools and does not affect switch synchronization on the EPSA40-2. The EPSA40-1 and EPSA40-2 supervisory pressure switches are NEMA 4 rated.

### Specifications, EPSA40-1 and EPSA40-2

#### Architectural/Engineering Specifications EPSA40-1 (SPDT), EPSA40-2 (2/SPDT)

Model shall be an EPSA40-1 or EPSA40-2 pressure type waterflow switch as manufactured by System Sensor. They shall be installed on the sprinkler system with connection as shown on the drawings and/or as specified herein. Pressure switches shall be of the bellows-activated type. Switches shall have a maximum service pressure rating of 250 psi and shall be adjustable from 10 – 100 psi. There shall be one (1) or two (2) SPDT contacts rated at 10.0 Amp @ 125/250 VAC and 2.5 Amp @ 6/12/24 VDC. The contractor shall furnish and install, where indicated on the plans, pressure switches according to appropriate NFPA standards. Switches shall be provided with a 1/2" NPT male pressure connection to be connected into the air supply line on the system side of any shut-off valve. Switches shall provide 1 knockout type and 1 open hole for 1/2" conduit fitting attachment and a ground screw provision for electrical grounding.

The switch enclosure shall be weatherproof and carry a UL 4x/NEMA 4 rating when used with proper electrical fittings and conduit. The cover shall incorporate tamper-resistant screws. The unit shall be listed by ULC.

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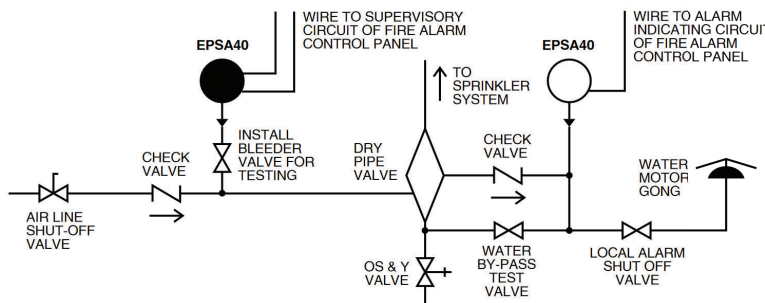
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## Specifications, EPSA40-1 and EPSA40-2 (Cont)

### Physical/Operating Specifications

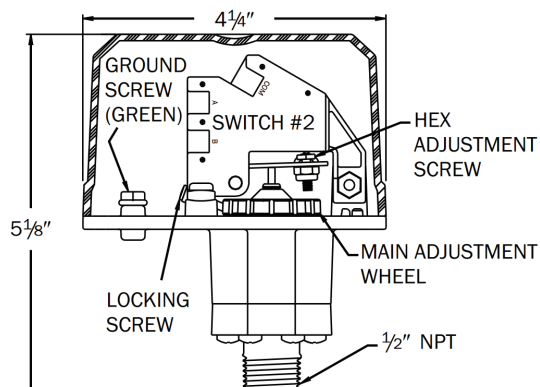
Maximum Operating Pressure	250 psi	Operating Temperature Range	Indoor or outdoor use: -40°C to 71°C (-40°F to 160°F)
Maximum Adjustment Pressure Range	10 to 100 psi	Cover Tamper Switch	UL Models: Optional P/N 546-8000 ULC Models: Factory Installed
Differential	Approximately 3 psi @ 10 psi, 6 psi @ 100 psi	Enclosure	Rated UL 4x, NEMA 4 for indoor or outdoor use
Factory Setting	EPSA40-1 operates at decreasing pressure at 30 psi EPSA40-2 operates at increasing pressure at 50 psi and decreasing pressure at 30 psi	Shipping Weight	1.2 lbs. (.54 Kg)
Switch Contact Ratings	EPSA10-1: One set SPDT (Form C) EPSA10-2: Two sets SPDT (Form C) 10.0 A, ½ HP @ 125/250 VAC 2.5 A @ 6/12/24 VDC	Service Use	Automatic Sprinkler: NFPA 13 One or Two Family Dwelling: NFPA 13D Residential Occupancies up to 4 Stories: NFPA 13R National Fire Alarm Code: NFPA 72
Pressure Connection	½" NPT male	Warranty	3 years
Dimensions	5.12"H × 3.325"W × 4.250"L (13.0 cm × 8.4 cm × 10.8 cm)		

## Typical Sprinkler Applications



DRY SYSTEM

## Electrical Connections



## Pressure Switch Basic Dimensions

MODELS EPSA40-1	MODELS EPSA40-2
SWITCH AT 40 P.S.I. (NORMAL)	SWITCHES AT 30 P.S.I. (LOW TRIP PT.)
B COM A	B COM A B COM A
	SW1 SW2
SWITCH AT 30 P.S.I. (LOW TRIP PT.)	SWITCHES AT 40 P.S.I. (NORMAL)
B COM A	B COM A B COM A
	SW1 SW2
SWITCH 1	SWITCHES AT 50 P.S.I. (HIGH TRIP PT.)
	B COM A B COM A
	SW1 SW2

### Ordering Information

7050401	Low Pressure Supervisory Switch, One SPDT, 10-100 PSI - Plastic Fitting
SSEPSA40-2	High/Low Pressure Supervisory Switch, Two SPDT, 10-100 PSI - Plastic Fitting

### Replacement Parts

S07-66-XX	Replacement Tamper Screws for Cover of EPSA
WFDW	Replacement Tamper Proof Wrench for Cover of EPSA
546-8000	Cover Tamper Switch for EPS Series



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## EPSA120-1 And EPSA120-2 Supervisory Pressure Switches

*System Sensor EPSA120 Series switches are designed to supervise system air pressure in pipes or pressure tanks, as well as water or air pressure supplies of automatic water control valves.*



### Features

- Pressure adjustment wheel, no special tools required
- Field adjustable pressure sensitivity
- Factory set for use in a nominal 115 psi system
- Reinforced diaphragm resists pressure spikes
- Two conduit entrances provided
- NEMA 4 rated

The EPSA120-1 has a single SPDT switch while the EPSA120-2 model contains two SPDT switches. The EPSA120 Series features field adjustable pressure sensitivity to provide an alarm response between 10 and 200 psi. All models are factory set for use in a nominal 115 psi system. The EPSA120-1 is factory set to respond at 105 psi at decreasing pressure while the EPSA120-2 is factory set to respond at 125 psi on rising pressure and 105 psi on decreasing pressure. The pressure adjustment wheel requires no special tools and does not affect switch synchronization on the EPSA120-2.

### Agency Listings



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## EPSA120 Series Specifications

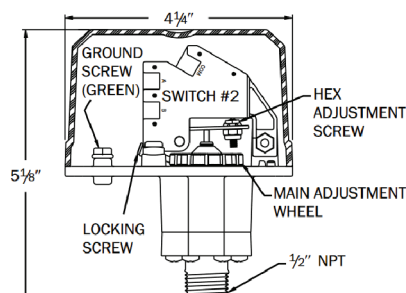
### Architectural/Engineering Specifications

Model shall be an EPSA120-1 or EPSA120-2 pressure type waterflow switch as manufactured by System Sensor. They shall be installed on the sprinkler system with connection as shown on the drawings and/or as specified herein. Pressure switches shall be of the bellows-activated type. Switches shall have a maximum service pressure rating of 250 psi and shall be adjustable from 10–200 psi. There shall be one (1) or two (2) SPDT contacts rated at 10.0 Amp @ 125/250 VAC and 2.5 Amp @ 6/12/24 VDC. The contractor shall furnish and install, where indicated on the plans, pressure switches according to appropriate NFPA standards. Switches shall be provided with a 1/2" NPT male pressure connection to be connected into the air supply line on the system side of any shut-off valve. Switches shall provide 1 knockout type and 1 open hole for 1/2" conduit fitting attachment and a ground screw provision for electrical grounding. The switch enclosure shall be weatherproof and carry a UL 4x/NEMA 4 rating when used with proper electrical fittings and conduit. The cover shall incorporate tamper-resistant screws. The unit shall be listed by ULC.

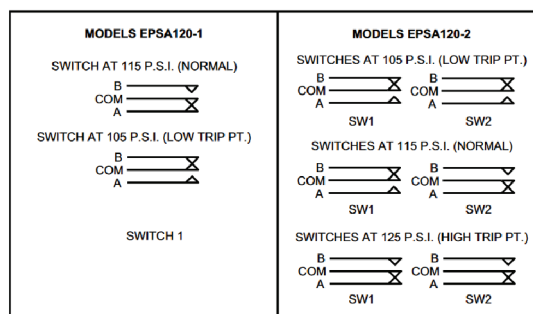
#### Physical/Operating Specifications

Maximum Operating Pressure	250 psi	Differential	Approximately 3 psi throughout range
Pressure Connection	1/2" NPT male	Enclosure	Rated UL 4x, NEMA 4 for indoor or outdoor use
Maximum Adjustment Pressure Range	100 to 200 psi	Dimensions	5.12"H x 3.325"W x 4.250"L (13.0 cm x 8.4 cm x 10.8 cm)
Operating Temperature Range	Indoor or outdoor use -40°C to 71°C (-40°F to 160°F)	Cover Tamper Switch	UL Models: Optional P/N 546-8000 ULC Models: Factory Installed
Factory Setting	EPSA120-1 operates at decreasing pressure at 105 psi EPSA120-2 operates at increasing pressure at 125 psi and decreasing pressure at 105 psi	Service Use	Automatic Sprinkler: NFPA 13 One or Two Family Dwelling: NFPA 13D Residential Occupancies up to 4 Stories: NFPA 13R National Fire Alarm Code: NFPA 72
Switch Contact Ratings	EPSA120-1: One set SPDT (Form C) EPSA120-2: Two sets SPDT (Form C) 10.0 A, 1/2 HP @ 125/250 VAC 2.5 A @ 6/12/24 VDC	Shipping Weight	1.2 lbs. (.54 Kg)
		Warranty	3 years

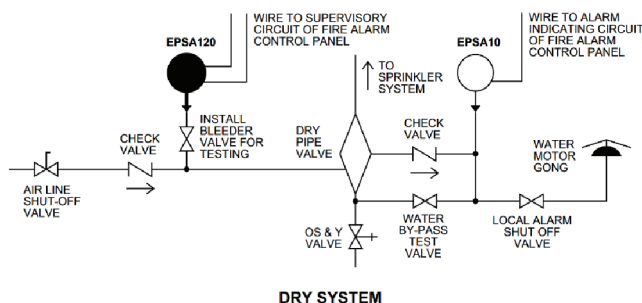
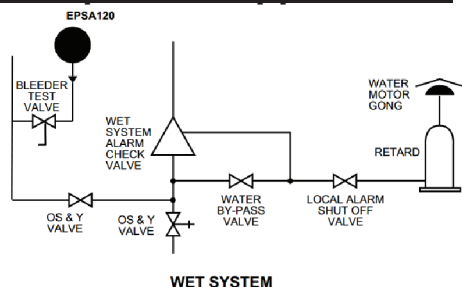
### Pressure Switch Basic Dimensions



### Electrical Connections



### Typical Sprinkler Applications



#### Ordering Information

7051201	Low pressure supervisory switch, one SPDT, 10–200 PSI
SSEPSA120-2	High/low pressure supervisory switch, two SPDT, 10–200 PSI

#### Replacement Parts

S07-66-XX	Replacement Tamper Screws for Cover of EPSA
WFDW	Replacement Tamper Proof Wrench for Cover of EPSA
546-8000	Cover Tamper Switch for EPS Series



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