

Waterflow Detectors, Vane Type

Waterflow detectors installed in sprinkler systems provide an electrical alarm when a flow of water from the system equals or exceeds that of a single sprinkler. They can be used with either open or closed signaling circuits.

They may consist of a flexible vane which projects into the waterway or a pressure-sensing device. For the flexible vane type, water movement deflects the vane, and the motion is transmitted to an alarm-actuating switch after a predetermined time delay. The time delay is accomplished by the use of an instantly recycling retard.

Unless otherwise noted in the listing, the flexible vane type is to be used with pipe having an inside diameter which corresponds to Schedule 40 pipe for sizes up to and including 6 in. (152 mm) or Schedule 30 pipe for sizes 8 and 10 in. (203 and 254 mm).

Waterflow detectors should not be specified for those systems where the time duration of a pressure fluctuation is greater than the retard time. Instantly recycling retards will not transmit an electrical alarm until the time duration of the pressure fluctuation or waterflow past the vane of the flow detector has exceeded the predetermined time setting of 30-60 seconds. Unless otherwise noted in the listing, these detectors have 175 psi (1205 kPa) rated working pressure.

Model VSR, VS-F

Model VSR. 2 through 8 in. NPS. Furnished with two snap switches and pneumatic retard. 450 psi (3100 kPa) rated working pressure.

Model VSR-TSK. 2 through 6 in. NPS. Furnished with two snap switches and pneumatic retard, and a tamper switch to indicate that the cover was removed. 450 psi (3100 kPa) rated working pressure.

Model VSR-F. 2 through 8 in. NPS. Furnished with two snap switches and pneumatic retard. 450 psi (3105 kPa) rated working pressure.

Models VS-F, VSR-F. 2 through 5 in. NPS, for use with Schedule 10 pipe; 6 in. NPS, for use with pipe having a wall thickness of 0.134 in. (3 mm); 8 in. NPS (203 mm), for use with pipe having a wall thickness of 0.188 in. (5 mm), or Schedule 40 pipe.

Model VSR-FE-2. 2 through 5 in. NPS, for use with Schedule 10 pipe; 6 in. NPS, for use with pipe having a wall thickness of 0.134 in. (3 mm); 8 in. NPS, for use with pipe having a wall thickness of 0.188 in. (5 mm). All sizes also for use in Schedule 40 pipe. 450 psi (3105 kPa) rated working pressure. Furnished with electronic retard.

Model VSR-FEX. 2 through 8 in. NPS. For simultaneous usage as explosionproof for Class I, Division 1, Groups C and D; dust-ignitionproof for Class II/III, Division 1, Groups E, F and G hazardous (classified) locations indoors and outdoors (NEMA Type 4); 2 through 5 in. NPS, for use with Schedule 10 pipe; 6 in. NPS, for use with pipe having a wall thickness of 0.134 in. (3 mm); 8 in. NPS, for use with pipe having a wall thickness of 0.188 in. (5 mm). All sizes also for use in Schedule 40 pipe. 450 psi (3105 kPa) rated working pressure. Furnished with pneumatic retard.

Company Name:	Potter Electric Signal Company
Company Address:	1609 Park 370 Place, Saint Louis, Missouri 63042, USA
Company Website:	http://www.pottersignal.com
Listing Country:	United States of America
Certification Type:	FM Approved



USQT.S309 Extinguishing System Attachments

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Extinguishing System Attachments

[See General Information for Extinguishing System Attachments](#)

POTTER ELECTRIC SIGNAL CO L L C
1609 PARK 370 PL
HAZELWOOD, MO 63042 USA

S309

SPRINKLER SYSTEM ALARM INITIATING DEVICES

WET PIPE, PADDLE TYPE

Model	Size In.	Pipe Schedule	Max System Pressure psig
VSG	2, 2-1/2, 3, 4	Water Mist	450
		Systems Only	
VSR-F, VSR-FE,	2, 2-1/2, 3,	10-40	450
VSR-FE-2, VS-F	3-1/2, 4, 5,	Steel	
	6, 8, 10		
VSR	2, 2-1/2, 3, 3-1/2,	10-40 Steel	450
	4, 5, 6, 8, 10		
VSR-EU	2, 2-1/2, 3, 4, 5, 6, 8	10-40 Steel	450
VSR-S	1, 1-1/4, 1-1/2, 2	10-40 Steel	300
		Listed Plastic	
		K, L, M Copper	
VSR-SF, VS-SP	1, 1-1/4, 1-1/2, 2	10-40 Steel	250
		Listed Plastic	
		K, L, M Copper	
VSR-CF, VSR-C	2, 2-1/2, 3,	Listed Plastic	175
	2, 2-1/2, 3, 4	K,L,M Copper	
VSR-SFG, VSR-SG, VSR-SFT, VSR-ST	1, 1-1/4, 1-1/2, 2	Listed Plastic	250

Model VS-SP for outdoor use with Kit No. 1940037. Models VS-F, VSR-F, VSR-CF, VSR-C, VSR-FE, VSR-FE-2 for outdoor use with Kit No. 1940036.

DRY-PIPE & WET-PIPE, PRESSURE TYPE

Model	Oper Pressure psig	Max System Pressure psig
*PS-10	0-20	300
*PS-10A	4-8	300
*PS-100	20-225	300
*PS10-1	4-15	300
*PS10-2	4-15	300
*PS10-1 w/TSK	4-15	300
*PS10-2 w/TSK	4-15	300
*PS10-1 w/TSK and Brass Bushing	4-15	300
*PS10-2 w/TSK and Brass Bushing	4-15	300
*PS-100A	20-175	300

*PS100-2	25-175	300
WFS-B	10	250
WFS-PDB	100	250
*WFSR-C	10	250
*WFSR-F	4-8	175
QRS	10-65	175

SUPERVISORY SIGNAL INITIATING DEVICES

PRESSURE DEVICES

Model	Oper Pressure psig	Max System Pressure psig
*PS-40	20-225	300
*PS-40A	20-175	300
*PS40-1	10-60	300
*PS40-2	10-60	300
*PS40-1 w/TSK	10-60	300
*PS40-2 w/TSK	10-60	300
*PS40-1 w/TSK and Brass Bushing	10-60	300
*PS40-2 w/TSK and Brass Bushing	10-60	300
HLS-B	40	250
*PS-120	20-225	300
*PS-120A	20-175	300
*PS120-1	25-175	300
*PS120-2	25-175	250
*PS120-1 w/TSK	25-175	300
*PS120-2 w/TSK	25-175	300
*PS120-1 w/TSK and Brass Bushing	25-175	300
*PS120-2 w/TSK and Brass Bushing	25-175	300

CONTROL VALVE DEVICES

Gate Valve	Post Indicator Valve
GVS	PIVS-B
OSYS-B	*PIVSU-A1, -A2
*OSYSU-1, -2, -A1, -A2	*PCVS, PCVS-1, -2

PTS-B Plug Type Switch — Special Application

*PMS Plug Type Switch — Special Application

*PTS-C Plug Type Switch — Special Application.

BVS-1", -3/4", -1/2" Supervised Trim Valves.

RBVS, RBVS-T — Retro-fit Ball Valve Supervisory Switch.

SUPERVISORY WATER TEMPERATURE DEVICES Steel or Wood Tank

*TTS-S, TTS-W

SUPERVISORY AIR TEMPERATURE DEVICES

RTS-C, RTS-O, for indoor use.

WATERLEVEL DEVICES

*WLS-S (Steel Tank), WLS-W (Wood Tank), WCS

*For indoor or outdoor use.

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EUROPEAN DECLARATION OF CONFORMITY

07

ISSUE DATE: March 2, 2007

MANUFACTURER: POTTER ELECTRIC SIGNAL COMPANY
2081 CRAIG ROAD
ST. LOUIS, MO 63146
USA

PRODUCT: Pressure Switches

SERIES: PS10, PS40, PS100, PS120, and WFSR-F

MODEL/TYPE REFERENCE: PS10-1A, PS10-2A, PS40-1A, PS40-2A, PS100-2A, PS120-1A,
PS120-2A, and WFSR-F. PS10-1, PS10-2, PS40-1, PS40-2,
PS100-2, PS120-1, and PS120-2.

THE UNDERSIGNED HEREBY DECLARES, ON BEHALF OF THE POTTER ELECTRIC SIGNAL CO. OF ST. LOUIS MISSOURI, USA THAT THE ABOVE PRODUCT, TO WHICH THIS DECLARATION RELATES IS IN CONFORMITY WITH THE PROVISIONS OF:

DIRECTIVES: COUNCIL DIRECTIVE(s) 73123/EEC AND 97/23/EC

COUNCIL DIRECTIVE 93168/EEC (JULY 22,1993)

STANDARDS: EN 60 947-5-1 1991 LOW VOLTAGE SWITCHGEAR & CONTROL GEAR AND 97/23/EC PRESSURE EQUIPMENT DIRECTIVE

THE TECHNICAL CONSTRUCTION FILE REQUIRED BY THIS DIRECTIVE IS MAINTAINED AT THE CORPORATE OFFICE OF:

POTTER ELECTRIC SIGNAL COMPANY
2081 CRAIG ROAD
ST. LOUIS, MISSOURI USA

Brad Serangeli
Quality Systems Manager

BRE Certification Limited and LPCB

Bucknalls Lane, Garston, Watford, Hertfordshire, WD25 9XX

Telephone: 01923 664100 Fax: 01923 664603 E-mail: enquiries@bre-certification.co.uk Web: www.bre-certification.co.uk

EC-CERTIFICATE OF CONFORMITY

0832 - CPD - 2053

In compliance with the Directive 89/106/EEC of the Council of European Communities of 21 December 1988 on the approximation of laws, regulations and administrative provisions of the Member States relating to the construction products (Construction Products Directive - CPD), amended by the Directive 93/68/EEC of the Council of European Communities of 22 July 1993, it has been stated that the construction product

Model VSR-S (EU)

(For full product details and conditions of use refer to appendix)

placed on the market by

Potter Electric Signal Company
2081 Craig Road, St Louis, Missouri 63146, USA

and produced in the factory

Potter Electric Signal Company
2081 Craig Road, St Louis, Missouri 63146, USA

is submitted by the manufacturer to a factory production control and that the notified body BRE Certification Limited has performed the initial type-testing for the relevant characteristics of the product, the initial inspection of the factory and of the factory production control and performs the continuous surveillance, assessment and approval of the factory production control.

This certificate attests that all provisions concerning the attestation of conformity (Level 1) and the performances described in Annex ZA of the standard

EN 12259-5 - Fixed firefighting systems — Components for sprinkler and waterspray systems — Part 5: Water flow detectors

were applied and that the product fulfils all the prescribed requirements.

This certificate was first issued on 28 April 2009 and remains valid as long as the conditions laid down in the harmonised technical specification in reference or the manufacturing conditions in the factory or the FPC itself are not modified significantly and the required annual FPC assessments are maintained.



B W Lywood
Senior Scheme Manager
On behalf of BRE Global Limited and LPCB

Date of issue: 28 April 2009

Issue number: 2

This certificate remains the property of BRE Certification Ltd and is issued subject to terms and conditions and is maintained and held in force through regular Factory Production Control audits.
To check the authenticity of this certificate, please visit our website or contact us.

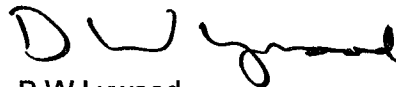
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Appendix to EC-Certificate of Conformity 0832 - CPD - 2053

Model	Size (mm)	Maximum Working Pressure	Minimum Sensitivity	Response time	Current rating at 24 V DC
VSR-S (EU) 1"	DN 25	20.7	38 l/min	Adjustable up to 30 seconds	10 mA
VSR-S (EU) 1 ¼"	DN 32	20.7	38 l/min	Adjustable up to 30 seconds	10 mA
VSR-S (EU) 1 ½"	DN 38	20.7	38 l/min	Adjustable up to 30 seconds	10 mA
VSR-S (EU) 2"	DN 50	20.7	38 l/min	Adjustable up to 30 seconds	10 mA



B W Lywood
Senior Scheme Manager
On behalf of BRE Certification Limited

Date of issue: 28 April 2009

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