



TECHNICAL DATA

EASYPAC COMMERCIAL RISER MANIFOLD ASSEMBLIES 1-1/4" - 8" (DN32 - DN200)

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058

Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com

Visit the Viking website for the latest edition of this technical data page: www.vikinggroupinc.com

1. DESCRIPTION

Viking EasyPac Commercial Riser Manifold Assemblies are available in sizes 1-1/4", 1-1/2", 2", 2-1/2", 3", 4", 6" and 8" for commercial systems. They are available with an AGF TESTanDRAIN valve and/or pressure relief valve (PRV) to meet NFPA 13 requirements for gridded systems and any system requiring a pressure relief valve. This configuration eliminates the need to drain the system before installing the relief valve, while a built in test port allows hydrostatic testing without draining the system.

EasyPac Commercial Assemblies are designed with all required equipment and standard components that can be replaced in the field, including pressure gauges, Potter flow switches, 3-way gauge control valve and appropriate drain valve. All assemblies are available in grooved inlet and outlet connections 1-1/4"-8" using Schedule 10 steel pipe. The 1-1/4" to 2" assemblies are also available with male NPT threaded inlets and outlets, or threaded inlets x grooved outlets using Schedule 40 steel pipe.



2. LISTINGS AND APPROVALS

Pressure Gauges: UL Listed, FM Approved

Waterflow Alarm Switch: UL Listed - Category USQT, cUL Listed, FM Approved - Waterflow Detectors, Vane Type, CSFM Listed

Ball Valve: UL Listed, FM Approved

AGF TestanDrain Model 1000: UL Listed - Category VEHZ, FM Approved - Sprinkler System Alarm Testers

AGF TestanDrain Model 1011 with Pressure Relief Valve: UL Listed - Category VEHZ, FM Approved - Sprinkler System Alarm Testers



3. TECHNICAL DATA

Specifications and Material Standards:

Available since 2007.

- Pressure Rating: 250 PSI (17.2 bar) maximum water working pressure.
- Fabricated steel pipe.
- Available in grooved inlet and outlet connections 1-1/4" to 8" using Schedule 10 steel pipe.
- 1-1/4", 1-1/2", and 2" assemblies are also available with male NPT threaded inlet and outlet, or threaded inlet x grooved outlet using Schedule 40 steel pipe.
- Riser bodies coated with black Ecoat.
- Flow Switch: Two single-pole double-throw switches with Form C contacts rated at 15 Amps 125/250 V. AC, 2.5 Amp 0-30 V. DC. Each switch can be wired for open or closed circuit operation. See Figure 1.

Ordering Information:

(Also refer to the current Viking price list.)

There are three different options are available for the commercial line:

Commercial EasyPac Assemblies with Ball Valve (See figure 2)

Commercial EasyPac Assemblies with TESTanDRAIN Valve (See figure 3)

Commercial EasyPac Assemblies with TESTanDRAIN and Pressure Relief Valve (PRV) (See figure 4)

See Table 1 for Part Numbers.

4. INSTALLATION

Refer to appropriate NFPA Installation Standards.

Note: EasyPac Commercial Riser Manifold Assemblies can be installed horizontally with flow switch on top, or vertically with flow upward.

Viking EasyPac Riser Assemblies use Potter VSR flow switches. The literature that accompanies the VSR states that the switch should not be installed within 6" of a change of direction of pipe or within 24" of a valve. This is merely a recommendation to reduce the possibility of the switch not operating while minimal waterflow is occurring. This is a recommendation only, not a requirement.

5. OPERATING INSTRUCTIONS

1. To Test: Turn valve handle counterclockwise from "Off" to "Test". The handle will stop automatically. After test is completed, return handle to "Off".
2. To Drain: Turn handle counterclockwise from "Off" to "Test". The handle will stop automatically. Depress "Push" button and turn handle to "Drain". When system is empty, return handle clockwise to "Off" position.



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Table 1 - Commercial EasyPac Assemblies

Pipe Size	Inlet / Outlet Connections	Option	Pipe Size	Viking Part Number
1-1/4"	Thread / Thread	Ball Valve	Schedule 40	15248
		TESTanDRAIN		14871
		TESTanDRAIN and PRV		14873
	Groove / Groove	Ball Valve	Schedule 10	15249
		TESTanDRAIN		14872
		TESTanDRAIN and PRV		14874
	Thread / Groove	Ball Valve	Schedule 40	15250
		TESTanDRAIN		15251
		TESTanDRAIN and PRV		15252
1-1/2"	Thread / Thread	Ball Valve	Schedule 40	15253
		TESTanDRAIN		14875
		TESTanDRAIN and PRV		14877
	Groove / Groove	Ball Valve	Schedule 10	15254
		TESTanDRAIN		14876
		TESTanDRAIN and PRV		14878
	Thread / Groove	Ball Valve	Schedule 40	15255
		TESTanDRAIN		15256
		TESTanDRAIN and PRV		15257
2"	Thread / Thread	Ball Valve	Schedule 40	14899
		TESTanDRAIN		14935
		TESTanDRAIN and PRV		14847
	Groove / Groove	Ball Valve	Schedule 10	14848
		TESTanDRAIN		14850
		TESTanDRAIN and PRV		14851
	Thread / Groove	Ball Valve	Schedule 40	15258
		TESTanDRAIN		15259
		TESTanDRAIN and PRV		15260
2-1/2"	Groove / Groove	Ball Valve	Schedule 10	14852
		TESTanDRAIN		14853
		TESTanDRAIN and PRV		14854
3"	Groove / Groove	Ball Valve	Schedule 10	14855
		TESTanDRAIN		14856
		TESTanDRAIN and PRV		14857
4"	Groove / Groove	Ball Valve	Schedule 10	14858
		TESTanDRAIN		14859
		TESTanDRAIN and PRV		14860
6"	Groove / Groove	Ball Valve	Schedule 10	14861
		TESTanDRAIN		14862
		TESTanDRAIN and PRV		14863
8"	Groove / Groove	Ball Valve	Schedule 10	15264
		TESTanDRAIN		15265
		TESTanDRAIN and PRV		15266

TESTanDRAIN Option:

Includes a test orifice with size specified from 3/8" (K2.8) to 25K ESFR*, depending on the smallest sprinkler installed on the system. Must add suffix to the part number for the desired orifice size.

Orifice Suffix:

- A = 3/8" (K 2.8)
- B = 7/16" (K 4.2)
- C = 1/2" (K 5.6)
- D = 17/32" (K 8.0)
- E = K 11.2 ELO
- F = K14 ESFR
- G = K25 ESFR

TESTanDRAIN with PRV Option:

Includes test orifice and pressure relief valve. The test orifice must be specified based on the smallest sprinkler installed on the system for 3/8" (K2.8) to K25 ESFR*. The pressure relief valve is not factory assembled to the TestanDrain. Must add suffix to the part number for the desired orifice size and pressure setting of the pressure relief valve.

Orifice Suffix:

- A = 3/8" (K 2.8)
- B = 7/16" (K 4.2)
- C = 1/2" (K 5.6)
- D = 17/32" (K 8.0)
- E = K 11.2 ELO
- F = K14 ESFR
- G = K25 ESFR

PRV Suffix:

- 175
- 185
- 195
- 200
- 225
- 300

NOTE: It is important to note that the pressure rating of the relief valve indicates an operating range of pressure for both opening and closing of the valve. Standard relief valves are required to OPEN in a range of pressure between 90% and 105% of their rating. The valves are required to CLOSE at a pressure above 80% of that rating.

* ESFR TESTanDRAIN not available in 1-1/4", 1-1/2" or 2" Risers.

Table 2 - Pipe Diameters

	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"	6"	8"
Pipe OD	1.660" (42 mm)	1.900" (48 mm)	2.375" (60 mm)	2.875" (73 mm)	3.5" (89 mm)	4.5" (114 mm)	6.625" (168 mm)	8.625" (219 mm)
Schedule 10 Pipe ID	1.45" (36.6 mm)	1.69" (42.7 mm)	2.16" (54.8 mm)	2.64" (66.9 mm)	3.26" (82.8 mm)	4.26" (108.2 mm)	6.36" (161.5 mm)	8.249" (209.5 mm)
Schedule 40 Pipe ID	1.38" (35.1 mm)	1.61" (40.9 mm)	2.07" (52.5 mm)	N/A	N/A	N/A	N/A	N/A



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6. INSPECTIONS, TESTS AND MAINTENANCE

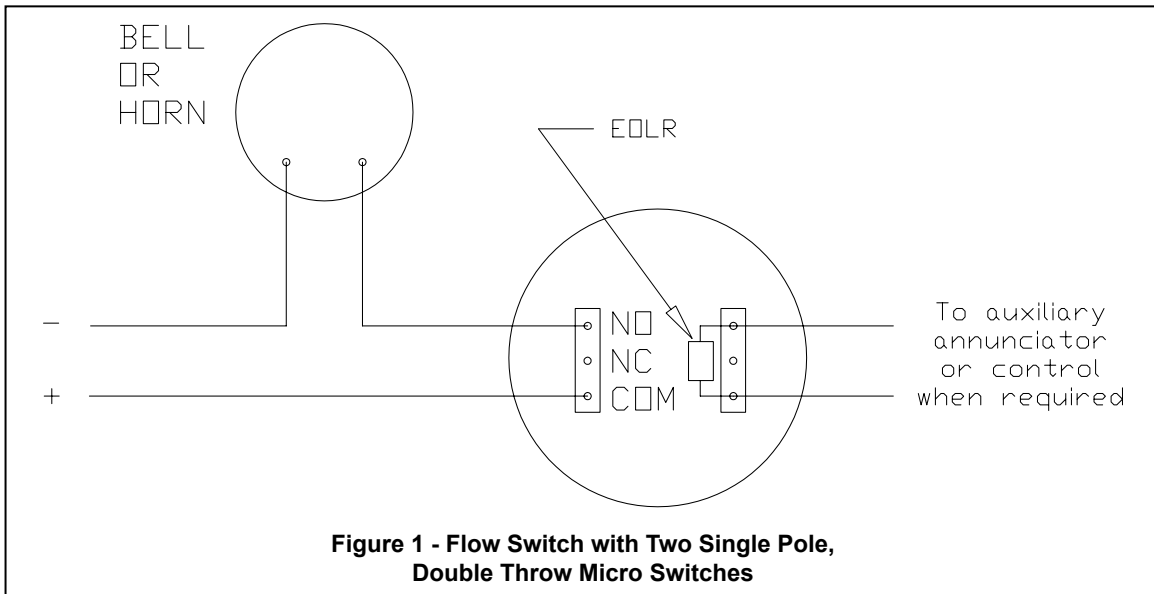
Refer to NFPA 25 for Inspection, Testing and Maintenance requirements.

7. AVAILABILITY

The Viking EasyPac Riser Assemblies are available through a network of domestic and international distributors. See The Viking Corporation web site for the closest distributor or contact The Viking Corporation.

8. GUARANTEE

For details of warranty, refer to Viking's current list price schedule or contact Viking directly.





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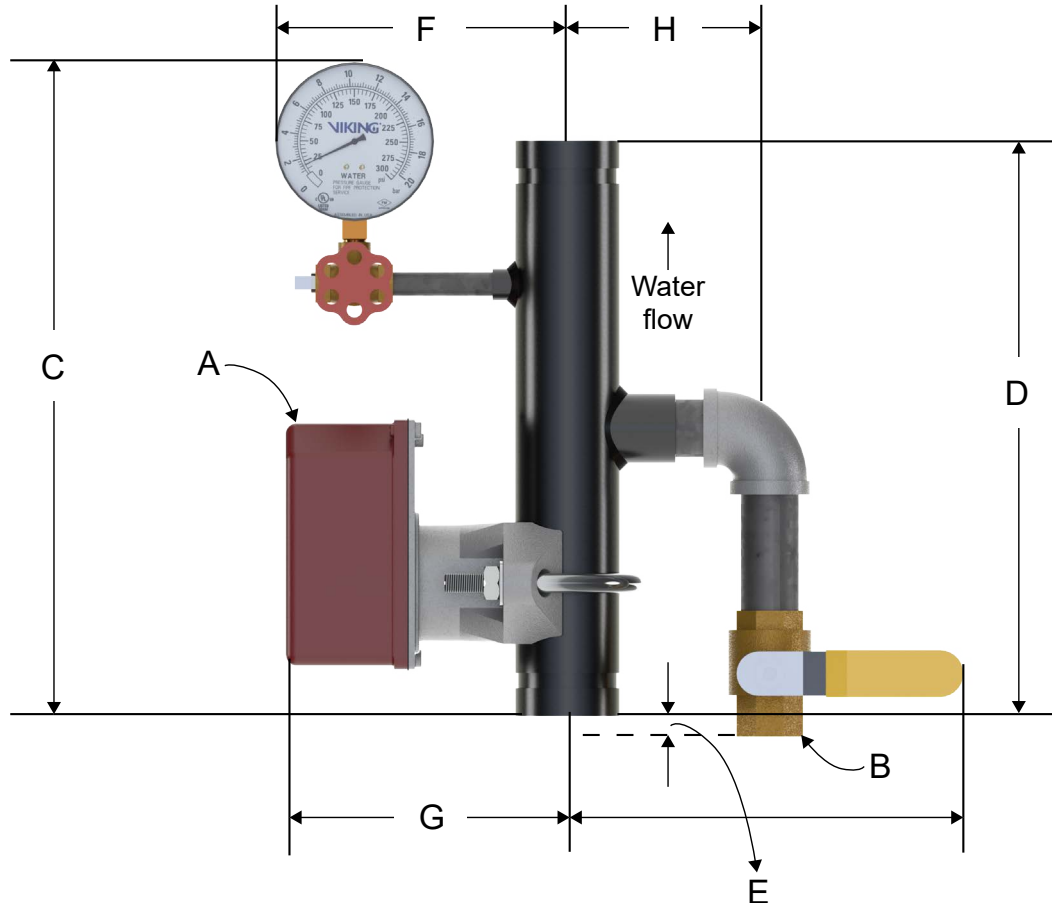


Figure 2 - Basic Commercial EasyPac

Size	A	B	C	D	E	F	G	H	I
1-1/4" (DN32)	VSR-S Flow Switch	1" NPT	16-1/2" (419)	15" (381)	1-1/2" (38)	6-3/32" (155)	6-11/32" (161)	4-3/16" (107)	8-9/16" (218)
1-1/2" (DN40)	VSR-S Flow Switch	1" NPT	16-1/2" (419)	15" (381)	1-1/2" (38)	7-19/32" (193)	6-15/16" (164)	5-11/16" (144)	10-1/16" (256)
2" (DN50)	VSR Flow Switch	1" NPT	14-1/2" (369)	13" (330)	-15/32" (12)*	6-7/16" (164)	5-51/64" (148)	4-9/16" (116)	8-59/64" (227)
2-1/2" (DN65)	VSR Flow Switch	1-1/4" NPT	14-1/2" (369)	13" (330)	5/8" (16)	6-11/16" (170)	6-3/64" (154)	5-1/4" (133)	9-39/64" (244)
3" (DN80)	VSR Flow Switch	1-1/4" NPT	14-1/2" (369)	13" (330)	5/8" (16)	7" (178)	6-23/64" (162)	5-9/16" (141)	9-59/64" (252)
4" (DN100)	VSR Flow Switch	2" NPT	14-1/2" (369)	13" (330)	-1-3/4" (-44)*	7-1/2" (191)	6-25/32" (173)	7-3/4" (197)	13-5/16" (338)
6" (DN150)	VSR Flow Switch	2" NPT	14-1/2" (369)	13" (330)	-1-3/4" (-44)*	8-35/64" (217)	7-53/64" (199)	8-51/64" (223)	14-23/64" (365)
8" (DN200)	VSR Flow Switch	2" NPT	14-3/4" (375)	13" (330)	-1-3/4" (-44)*	9-1/2" (243)	8-3/4" (225)	9-3/4" (249)	15-1/2" (391)

* Dimension E is negative because the ball valve extends below the end of the manifold body.



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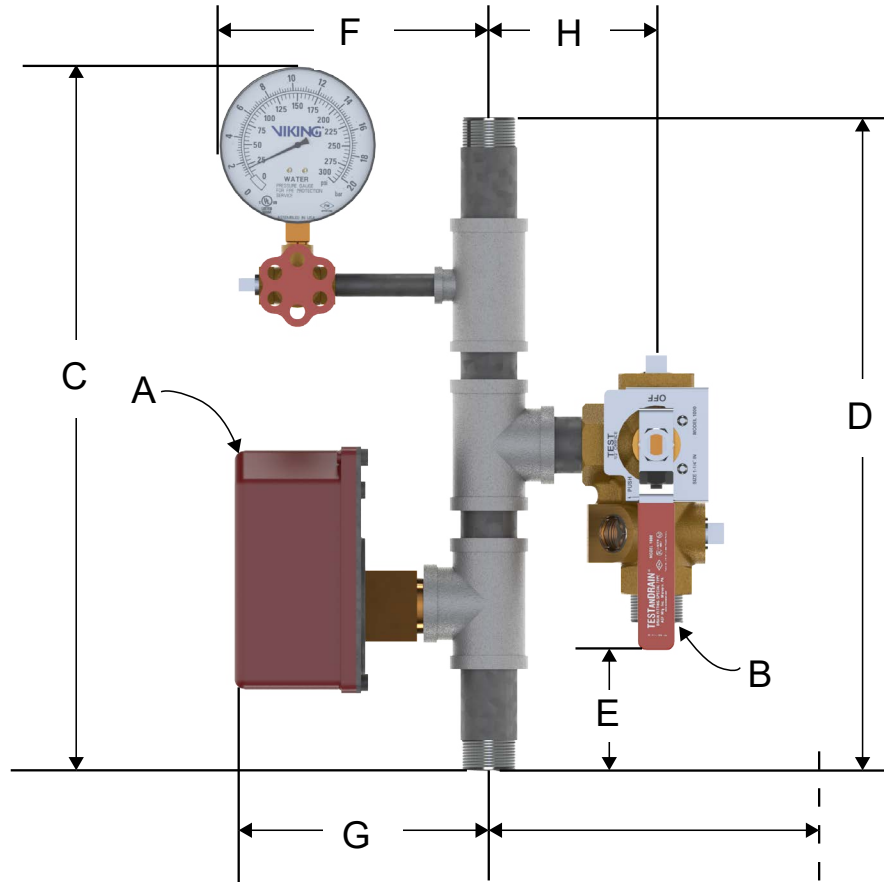


Figure 3 - Commercial EasyPac with TESTanDRAIN

Size	A	B	C	D	E	F	G	H	I
1-1/4" (DN32)	VSR-S Flow Switch	1" NPT	16-1/2" (419)	15" (381)	5-1/8" (131)	6-3/32" (155)	6-11/32" (161)	4-1/2" (114)	9-3/32" (231)
1-1/2" (DN40)	VSR-S Flow Switch	1" NPT	16-1/2" (419)	15" (381)	5-1/8" (131)	7-19/32" (193)	6-15/16" (164)	4-3/4" (121)	9-7/32" (234)
2" (DN50)	VSR Flow Switch	1" NPT	14-1/2" (369)	13" (330)	3-1/16" (78)	6-7/16" (164)	5-51/64" (148")	4-49/64" (121)	9-35/64" (242)
2-1/2" (DN65)	VSR Flow Switch	1-1/4" NPT	14-1/2" (369)	13" (330)	3-1/4" (83)	6-11/16" (170)	6-3/64" (154)	6-1/4" (159)	10-61/64" (278)
3" (DN80)	VSR Flow Switch	1-1/4" NPT	14-1/2" (369)	13" (330)	3-1/4" (83)	7" (178)	6-23/64" (162)	5-5/8" (143)	11-17/64" (286)
4" (DN100)	VSR Flow Switch	2" NPT	14-1/2" (369)	13" (330)	2-5/8" (66)	7-1/2" (191)	6-25/32" (173)	8-3/16" (208)	16-3/8" (416)
6" (DN150)	VSR Flow Switch	2" NPT	14-1/2" (369)	13" (330)	2-5/8" (66)	8-35/64" (217)	7-53/64" (199)	9-15/64" (235)	17-27/64" (443)
8" (DN200)	VSR Flow Switch	2" NPT	14-3/4" (375)	13" (330)	2-3/4" (70)	9-1/2" (243)	8-3/4" (225)	10-1/4" (262)	18-1/2" (468)

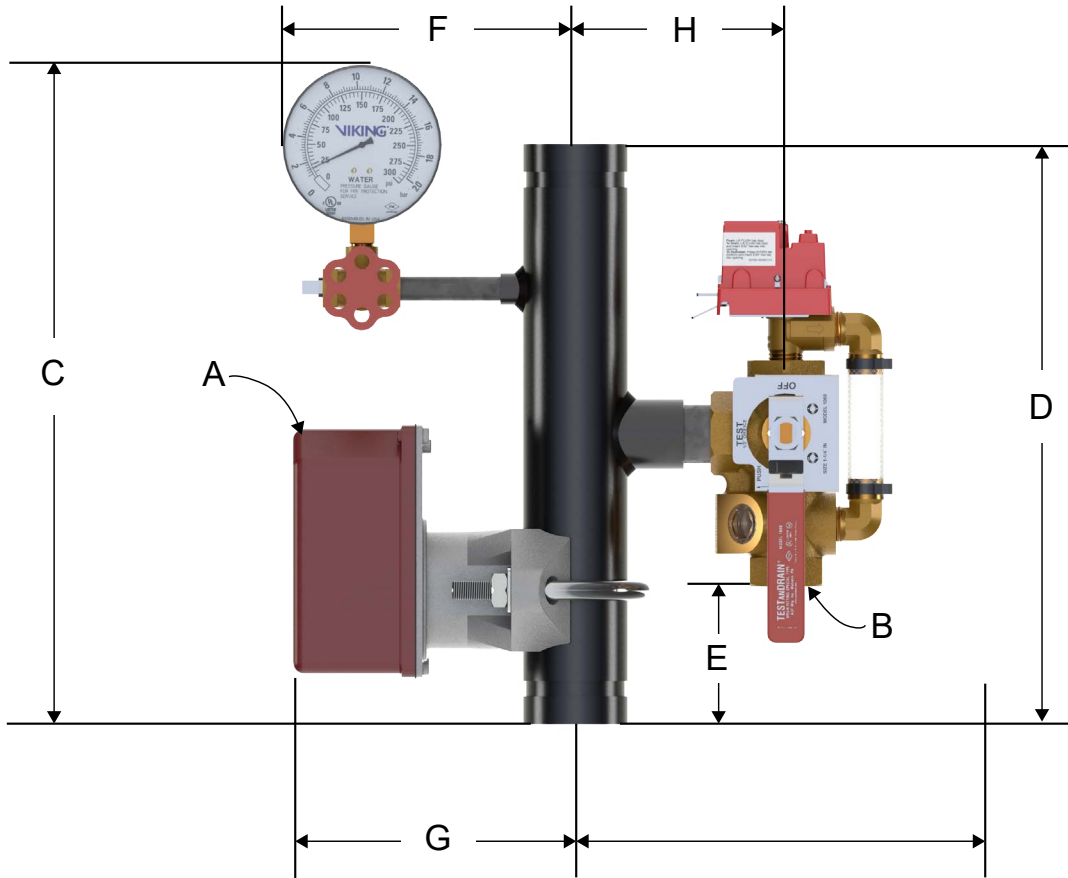


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Note: Pressure relief valve kit is shipped loose. It is NOT factory installed.

Figure 4 - Commercial EasyPac with TESTanDRAIN and PRV

Size	A	B	C	D	E	F	G	H	I
1-1/4" (DN32)	VSR-S Flow Switch	1" NPT	16-1/2" (419)	15" (381)	5-1/8" (131)	6-3/32" (155)	6-11/32" (161)	4-1/2" (114)	9-3/32" (231)
1-1/2" (DN40)	VSR-S Flow Switch	1" NPT	16-1/2" (419)	15" (381)	5-1/8" (131)	7-19/32" (193)	6-15/16" (164)	4-3/4" (121)	9-7/32" (234)
2" (DN50)	VSR Flow Switch	1" NPT	14-1/2" (369)	13" (330)	3-3/16" (81)	6-7/16" (164)	5-51/64" (148")	5-13/64" (132)	10-45/64" (272)
2-1/2" (DN65)	VSR Flow Switch	1-1/4" NPT	14-1/2" (369)	13" (330)	3-1/4" (83)	6-11/16" (170)	6-3/64" (154)	6-1/4" (159)	10-61/64" (278)
3" (DN80)	VSR Flow Switch	1-1/4" NPT	14-1/2" (369)	13" (330)	3-1/4" (83)	7" (178)	6-23/64" (162)	5-5/8" (143)	11-17/64" (286)
4" (DN100)	VSR Flow Switch	2" NPT	14-1/2" (369)	13" (330)	2-5/8" (66)	7-1/2" (191)	6-25/32" (173)	8-3/16" (208)	16-3/8" (416)
6" (DN150)	VSR Flow Switch	2" NPT	14-1/2" (369)	13" (330)	2-5/8" (66)	8-35/64" (217)	7-53/64" (199)	9-15/64" (235)	17-27/64" (443)
8" (DN200)	VSR Flow Switch	2" NPT	14-3/4" (375)	13" (330)	2-3/4" (70)	9-1/2" (243)	8-3/4" (225)	10-1/4" (262)	18-1/2" (468)