



Type 1520 Top-Mount Electric Flow Detector

Form 499

Type 1520 is a vertically mounted, vane-operated flow detector suitable for plant and OEM applications where open or closed contacts are required to signal flow or no flow conditions. The vane extension arm moves a magnet that actuates (deactuates) a hermetically sealed reed detector.

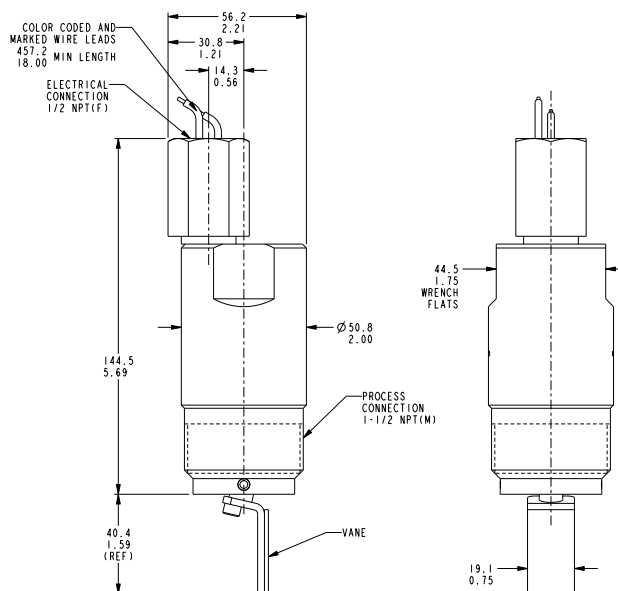


Product Specifications

Mounting	
Orientation	Vertical mount only
Connection Size	1-1/2" through 6"
Connection Type	NPT(M) or Flanged
Maximum Process Pressure*	5000 psi (345 bar)
Process Temperature Range	-40 to 400°F (-40 to 204°C)
Electrical	
Detector Type	Hermetically sealed reed detector with 18" 20 AWG wire leads
Housing	Class I, Group A, B, C & D; Division 1 & 2 with CS option
Optional Relay Housing	Class I, Groups C & D, Divisions 1 & 2 with CS option
Connection Size	1/2" NPT(F)
Minimum Flow Rate	1 FPS
Design Code	ANSI B31.3
Shipping Weight	Approximately 6 lbs. (3 kg)
Agency Listing	CSA Certified (US & Canada) and ANSI/ISA 12.27.01 or ATEX and IEC approved (optional). See page 2. GOST-R Certified (Standard)
Safety Certified to IEC 61508 (SIL)	
SOR products are certified to IEC 61508 for non-redundant use in SIL1 and SIL2 Safety Instrumented Systems for most models. For more details or values applicable to a specific product, see the Safety Integrity Level Quick Guide (Form 1528).	

Dimensions

*Agency certifications may affect ratings. See Accessories for details.



Drawing 0390011

Design and specifications are subject to change without notice. For latest revision, see www.sorinc.net.

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How to Order

Model Number System

1520 - B - F - 5A - C - W9 - EF - NC

Detector Mechanisms **3**

Amperages based on resistive loads

General Purpose	SPST	0.9A @ 24 volt Max 3A @ 24 volt Max 3 Watt Minimum	W9
General Purpose	SPDT	0.9A @ 24 volt Max 3A @ 24 volt Max 3 Watt Minimum	W1
Low Power	SPST	24 Watts Max	L9
Low Power	SPDT	24 Watts Max	L1

Process Connections **2**

Threaded:	1 1/2" NPT(M)	5A
	2" NPT(M)	2A
Flanged: (Available with 316SS body only) May affect process pressure rating.	2 1/2" 150#	7C
	300#	7D
	600#	7E
	3" 150#	3C
	300#	3D
	600#	3E
	4" 150#	4C
	300#	4D
	6" 150#	6C
	300#	6D

Body Material **1**

303SS (Standard)	B
316 Stainless Steel	C



1520 **B** F **5A** C **W9** EF **NC** ← **Model Number**

4 Optional Accessories

	Insert accessory designator(s) as needed
BB	Wetted parts are cleaned for industrial oxygen service
CL*	ATEX and IECEX approved. Ex ia IIC T3 (-40°C < Ta < +125 °C)
CR	3/4" NPT(F) conduit connection
CS*	CSA Certified. Class 1, Group A, B, C, D; Divisions 1 & 2. For relay option; Class 1, Group C & D, Divisions 1 & 2. Single seal ambient & process temperatures -40°C to +125°C. Additional seal not required.
CV	Canadian Registration Number (CRN). Consult the factory for applicable pressure and additional information.
HT	316 stainless steel terminal block housing. FM approved and CSA Certified Class I, Groups A, B, C & D; Class II, Groups E, F, & G, Class III; Division 1 (NEMA 4X)
NC	NACE construction - MR 01-75 / ISO 15156 2003. Available only with 316SS materials of construction
PP	Tag, fiber. Attached with plastic wire to housing. Stamped with customer specified tagging information.
RB**	24 volt powered DPDT relay in explosion proof terminal box. Contact rating: 10 amps @ 24 volt. Class I, Group C, D; Divisions 1 & 2.
RC**	24 volt powered DPDT relay in explosion proof terminal box. Contact rating: 10 amps @ 24 volt. Class I, Group C, D; Divisions 1 & 2
RR	Tag, stainless steel. (Attached with stainless steel wire to housing. Stamped with customer specified tagging information. 2 lines, 18 characters and spaces per line.)
TT	Stainless steel nameplate permanently attached to housing. Stamped with customer specified tagging information.
VV	Fungicidal varnish. Covers exterior except working parts.

*CS or CL option is required on all flange mounted units.

**Not available with L9 or L1 detector options.

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Certificates

	Certificates	C1	C3	C4	C5	C6	C7	B5	B6	B7
1520 Electric Flow Detector	Calibration	◆						◆	◆	◆
	Inspection Report		◆					◆	◆	◆
	Compliance / Conformance			◆						◆
	Dielectric Test				◆			◆		
	Insulation Resistance					◆		◆	◆	
	QA Test Report						◆			

Replacement Parts

Part Number	Description
3130 - 106	W9 - SPST Hermetically Sealed Detector Capsule
3130 - 245	W1 - SPDT Hermetically Sealed Detector Capsule
3130 - 107	L9 - SPST Hermetically Sealed Detector Capsule
3130 - 244	L1 - SPDT Hermetically Sealed Detector Capsule
3130 - 118	316SS Vane Assembly
3130 - 403	Actuator Arm Replacement Kit (1-1/2" NPT and flanged process connections)
3130 - 404	Actuator Arm Replacement Kit (2" NPT process connection)

Limited Warranty

SOR® agrees to repair or replace any detector found to be defective in material or workmanship within five years from date of shipment. The limited warranty is valid only if the detector was installed in accordance with published factory installation instructions, operated within the design limitations stated on the nameplate, and returned to the factory for inspection, freight prepaid, within the warranty period. Contact the factory for return authorization. No claim for labor or consequential damages will be allowed.

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