

## Cole-Parmer Flow Switches

### A Compact Low-Flow Switches



These normally open switches are specifically designed for reliable operation in clean air and water applications. Select from gas or liquid flow switches. Use a 50 µm filter to protect your switch. Switches include 18" (45.7 cm) L leads.

#### Specifications

**Switch:** SPST, NO, 20 VA  
**Max temperature:** 212°F (100°C)  
**Max pressure:** 150 psi at 70°F (21°C)  
**Wetted materials:** Noryl®, 316 SS, and epoxy  
**Connections:** 1/4" NPT(M)



| Flow setting <sup>†</sup> | Catalog number | Price |
|---------------------------|----------------|-------|
| <b>Gas switches</b>       |                |       |
| 25 cfm/60 cfm             | SN-32778-30    |       |
| 1 cfm/2.6 cfm             | SN-32778-32    |       |
| 2.5 cfm/5.6 cfm           | SN-32778-34    |       |
| 5 cfm/12 cfm              | SN-32778-36    |       |
| <b>Liquid switches</b>    |                |       |
| 0.05 GPM                  | SN-32778-31    |       |
| 0.25 GPM                  | SN-32778-33    |       |
| 0.50 GPM                  | SN-32778-35    |       |
| 1.00 GPM                  | SN-32778-37    |       |

<sup>†</sup>Switch actuation set points are listed for 5 psi and 100 psi.

### D Liquid Flow Switches for Threaded Plastic Piping



These normally open switches have 3/4" NPT(F) ports for a quick connection to threaded plastic piping. Polypropylene and stainless steel wetted parts offer excellent chemical resistance. The materials are also NSF and FDA approved for potable water treatment applications such as chlorinators, purifiers, and heaters. Switches include 24" (61.0 cm) L leads.

#### Specifications

**Switch:** SPST, NO, 20 VA  
**Max temperature:** 212°F (100°C)  
**Max pressure:** 100 psi at 70°F (21°C)  
**Wetted materials:** polypropylene, Viton®, 316 SS, and PH 15-7 Mo stainless steel  
**Connections:** 3/4" NPT(F)



| Flow setting | Catalog number | Price |
|--------------|----------------|-------|
| 0.25 GPM     | SN-32774-60    |       |
| 0.50 GPM     | SN-32774-62    |       |
| 1.00 GPM     | SN-32774-64    |       |
| 2.00 GPM     | SN-32774-66    |       |
| 2.50 GPM     | SN-32774-68    |       |
| 5.00 GPM     | SN-32774-70    |       |

### B Low Pressure-Drop Liquid Flow Switches



These SPST switches feature a unique, dual-diameter, internal bore and piston configuration to minimize flow constriction and provide low pressure drop. Use a 150 µm filter to protect your switch. Switches include 1/4" male quick connect terminals.

#### Specifications

**Switch:** SPST, 20 VA  
**Max temperature:** 212°F (100°C)  
**Max pressure:** 200 psi at 70°F (21°C)  
**Wetted materials:** polypropylene, Ryton® PPS, Viton®, and 316 SS  
**Connections:** 1/2" NPT(M)



| Flow setting                    | Catalog number | Price |
|---------------------------------|----------------|-------|
| <b>Normally open switches</b>   |                |       |
| 0.5 GPM                         | SN-32776-00    |       |
| 1.0 GPM                         | SN-32776-01    |       |
| 2.0 GPM                         | SN-32776-02    |       |
| 3.0 GPM                         | SN-32776-03    |       |
| 4.0 GPM                         | SN-32776-04    |       |
| 5.0 GPM                         | SN-32776-05    |       |
| <b>Normally closed switches</b> |                |       |
| 0.5 GPM                         | SN-32776-20    |       |
| 1.0 GPM                         | SN-32776-21    |       |
| 2.0 GPM                         | SN-32776-22    |       |
| 3.0 GPM                         | SN-32776-40    |       |
| 4.0 GPM                         | SN-32776-42    |       |
| 5.0 GPM                         | SN-32776-44    |       |

### E Liquid Flow Switches with 90° Ports



No need to cut a straight pipe to install your flow switch. These switches with 90° ports easily fit where a pipe elbow would be installed. Available in SPST or SPDT models. Use a 50 µm filter to protect your switch. Switches include 24" (61.0 cm) L leads.

#### Specifications

**Switch:** SPST or SPDT, 20 VA  
**Max temperature:** 225°F (107°C)  
**Max pressure:** 250 psi at 70°F (21°C)  
**Wetted materials:** Ryton® PPS, Viton®, 316 SS, and epoxy  
**Connections:** 9/16-18 UNF



| Flow setting | Catalog number | Price |
|--------------|----------------|-------|
| 0.1 GPM      | SN-32775-00    |       |
| 0.25 GPM     | SN-32775-01    |       |
| 0.5 GPM      | SN-32775-02    |       |
| 0.75 GPM     | SN-32775-03    |       |
| 1.0 GPM      | SN-32775-04    |       |
| 1.5 GPM      | SN-32775-05    |       |

### C Liquid Flow Switches for Plastic Piping



Use these normally open switches with plastic pipes without threads. Switches are available in gray or clear PVC housing. Use clear switches where visual flow confirmation is needed. Use a 150 µm filter to protect your switch. Switches include 24" (61.0 cm) L leads.

#### Specifications

**Switch:** SPST, NO, 20 VA  
**Max temperature:**  
 Clear switches: 120°F (50°C)  
 Gray switches: 140°F (60°C)  
**Max pressure:**  
 Clear switches: 120 psi at 70°F (21°C)  
 Gray switches: 150 psi at 70°F (21°C)  
**Wetted materials:** PVC, Buna N, and epoxy



| Connections           | Flow setting | Catalog number | Price |
|-----------------------|--------------|----------------|-------|
| <b>Clear switches</b> |              |                |       |
| 1/2" NPT <sup>‡</sup> | 0.5 GPM      | SN-32777-00    |       |
| 3/4" IPS              | 0.5 GPM      | SN-32777-02    |       |
| 1" IPS                | 2.0 GPM      | SN-32777-03    |       |
| <b>Gray switches</b>  |              |                |       |
| 1/2" NPT <sup>‡</sup> | 0.5 GPM      | SN-32777-20    |       |
| 3/4" IPS              | 0.5 GPM      | SN-32777-22    |       |
| 1" IPS                | 2.0 GPM      | SN-32777-24    |       |

<sup>‡</sup>The 3/4" IPS model with a 1/2" NPT port adapter installed.

### Ordering Information for E

| Flow setting                         | Catalog number | Price |
|--------------------------------------|----------------|-------|
| <b>Normally open SPST switches</b>   |                |       |
| 0.1 GPM                              | SN-32774-00    |       |
| 0.25 GPM                             | SN-32774-02    |       |
| 0.5 GPM                              | SN-32774-04    |       |
| 0.75 GPM                             | SN-32774-06    |       |
| 1.0 GPM                              | SN-32774-08    |       |
| 1.5 GPM                              | SN-32774-10    |       |
| <b>Normally closed SPST switches</b> |                |       |
| 0.1 GPM                              | SN-32774-12    |       |
| 0.25 GPM                             | SN-32774-14    |       |
| 0.5 GPM                              | SN-32774-16    |       |
| 0.75 GPM                             | SN-32774-18    |       |
| 1.0 GPM                              | SN-32774-20    |       |
| 1.5 GPM                              | SN-32774-22    |       |
| <b>SPDT switches</b>                 |                |       |
| 0.1 GPM                              | SN-32775-00    |       |
| 0.25 GPM                             | SN-32775-01    |       |
| 0.5 GPM                              | SN-32775-02    |       |
| 0.75 GPM                             | SN-32775-03    |       |
| 1.0 GPM                              | SN-32775-04    |       |
| 1.5 GPM                              | SN-32775-05    |       |

#### Adapters

**SN-32775-50 Adapter,**  
 9/16-18 UNF x 1/8" NPT(F) .....  
**SN-32775-51 Adapter,**  
 9/16-18 UNF x 1/4" NPT(F).....  
**SN-32775-52 Adapter,**  
 9/16-18 UNF x 1/2" hose barb.....

See next page for more...

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## F Liquid Flow Switches for High In-line Pressures



The one-piece magnetic PPS composite piston makes these normally open switches ideal for high pressure applications. Switches withstand up to 1500 psi at 70°F (21°C)! Use a 100 µm filter to protect your switch. Switches include 24 to 26" L leads.

### Specifications

**Switch:** SPST, NO, 20 VA

**Max temperature:** 275°F (135°C)

**Max pressure:** 1500 psi at 70°F (21°C)

**Wetted materials:** brass or SS, PPS composite, 316 SS, and fluorocarbon

**Connections:** 3/8" NPT(M)

| Flow setting          | Catalog number | Price |
|-----------------------|----------------|-------|
| <b>Brass switches</b> |                |       |
| 0.25 GPM              | SN-32774-30    |       |
| 0.50 GPM              | SN-32774-32    |       |
| 1.00 GPM              | SN-32774-34    |       |
| 1.50 GPM              | SN-32774-36    |       |
| 2.00 GPM              | SN-32774-38    |       |

|                                 |             |  |
|---------------------------------|-------------|--|
| <b>Stainless steel switches</b> |             |  |
| 0.25 GPM                        | SN-32774-40 |  |
| 0.50 GPM                        | SN-32774-42 |  |
| 1.00 GPM                        | SN-32774-44 |  |
| 1.50 GPM                        | SN-32774-46 |  |
| 2.00 GPM                        | SN-32774-48 |  |

## G UL-Approved Liquid Flow Switches for High In-Line Pressures



These high-pressure SPDT switches withstand pressures up to 1000 psi at 225°F (107°C)! They provide reliable and consistent performance; ±1% repeatability. Switches are UL-listed for use in Class I, Division 2, Groups A, B, C, D hazardous environments. Use a 50 µm filter to protect your switch. Switches include 24" L leads.

### Specifications

**Switch:** SPDT, 20 VA

**Operating temp:** 225°F (107°C)

**Operating pressure:** 1000 psi at 225°F (107°C)

**Wetted materials:** brass, polysulfone, 316 SS, Viton®, and epoxy

**Connections:** 1/4" NPT(F)

| Flow setting | Catalog number | Price |
|--------------|----------------|-------|
| 0.10 GPM     | SN-32778-06    |       |
| 0.25 GPM     | SN-32778-08    |       |
| 0.50 GPM     | SN-32778-10    |       |
| 0.75 GPM     | SN-32778-12    |       |
| 1.00 GPM     | SN-32778-14    |       |
| 1.50 GPM     | SN-32778-16    |       |

## Adjustable Flow Switches for Liquids and Gases

### Adjustable set points trigger SPST contacts rated for 70 VA

■ Brass models handle pressures up to 1500 psi

As liquid or gas flows past the switch, it displaces a magnetic piston—this actuates a hermetically sealed reed switch. All flow switches have actuation points for air at 68°F and 14.7 psi with increasing flow. Withstand temperatures from -40 to 220°F. UL-recognized.

**Mini Low-Flow Switches** are configured to open the SPST contact when flow goes beyond the set point or stops. Typical applications include gas/liquid sampling, chemical injection, pollution control monitoring, atmospheric furnaces, and process systems.

### Specifications

**Repeatability:** ±2%

**Wetted materials**

Model 32929-00: brass, epoxy, and Viton®

Model 32929-02: TFE

| Connections | Flow range     |                | Max psi    | Material     | Catalog number             | Price |
|-------------|----------------|----------------|------------|--------------|----------------------------|-------|
|             | Air (scc/min)  | Water (cc/min) |            |              |                            |       |
| 1/8" NPT(F) | 30.0 to 16,000 | 1.0 to 500     | 1500<br>80 | Brass<br>TFE | SN-32929-00<br>SN-32929-02 |       |

**Standard Low-Flow Switches** are normally closed (NC) but can be wired for normally open (NO). Typical applications include chemical process and vapor deposition systems, industrial gas lines, pollution control monitoring, and atmospheric furnaces.

### Specifications

**Repeatability:** ±2%

**Wetted materials**

Models 32929-10 and -14: brass, epoxy, and Viton®

Models 32929-12 and -16: TFE

| Connections | Flow range    |                | Max psi     | Material     | Catalog number             | Price |
|-------------|---------------|----------------|-------------|--------------|----------------------------|-------|
|             | Air (scc/min) | Water (cc/min) |             |              |                            |       |
| 1/8" NPT(F) | 100 to 20,000 | 3.0 to 500     | 1500<br>100 | Brass<br>TFE | SN-32929-10<br>SN-32929-12 |       |
| 1/8" NPT(F) | 200 to 60,000 | 5.0 to 950     | 1500<br>100 | Brass<br>TFE | SN-32929-14<br>SN-32929-16 |       |

**Industrial Flow Switches** are normally closed (NC) but can be wired for normally open (NO). Typical applications include lubrication, process and fire control, cooling systems, heat pumps, hydraulic lifts, and water treatment.

### Specifications

**Repeatability:** ±2%

**Wetted materials:** brass, epoxy, and Viton®

**Back pressure:** 5 psi required for gas applications

| Connections | Flow range  |             | Max psi | Material | Catalog number | Price |
|-------------|-------------|-------------|---------|----------|----------------|-------|
|             | Air (scfm)  | Water (GPM) |         |          |                |       |
| 1/4" NPT(F) |             |             |         |          | SN-32929-20    |       |
| 3/8" NPT(F) | 0.5 to 50.0 | 0.1 to 4.0  | 1500    | Brass    | SN-32929-22    |       |
| 1/2" NPT(F) | 1.0 to 75.0 | 0.5 to 10.0 | 1500    | Brass    | SN-32929-24    |       |
| 3/4" NPT(F) | 5.0 to 120  | 1.0 to 20.0 | 1500    | Brass    | SN-32929-26    |       |

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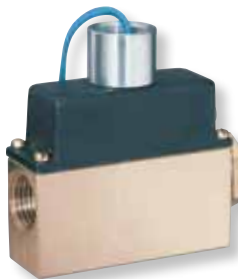
We recommend a 50 to 150 micron strainer in your line to protect the flow switch. See pages 465-481 for Cole-Parmer® In-Line Strainer System.



32929-00



32929-10



32929-22