

# Electronics for Positive Displacement Flow Meter S2000D Series - Dual-sensor

## 1). Single Pulse Output with 4 X Pulse Resolution



### Specifications

|                             |                                                                                    |
|-----------------------------|------------------------------------------------------------------------------------|
| Power supply                | 10...30VDC                                                                         |
| No load current             | <9mA                                                                               |
| Output                      | Push-Pull (PNP / NPN)                                                              |
| Reverse polarity protection | Yes                                                                                |
| Short circuit protection    | Yes                                                                                |
| Ambient temperature         | -40...185°F (-40...85°C)                                                           |
| Probe operating temperature | -40...210°F (-40...98°C)<br>-40...300°F (-40...148°C)<br>-40...450°F (-40...232°C) |
| Electrical connection       | M12 x 1 plug                                                                       |
| Protection class            | IP67                                                                               |

### Wiring

| M12 plug                                                                            |     |       |         | PNP                                                                                  |                                                                                       | NPN |  |
|-------------------------------------------------------------------------------------|-----|-------|---------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----|--|
|  | Pin | Color | Signal  |  |  |     |  |
|                                                                                     | 1   | Brown | Power + |                                                                                      |                                                                                       |     |  |
|                                                                                     | 4   | Black | Pulse   |                                                                                      |                                                                                       |     |  |
|                                                                                     | 3   | Blue  | Power - |                                                                                      |                                                                                       |     |  |

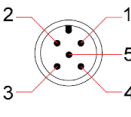
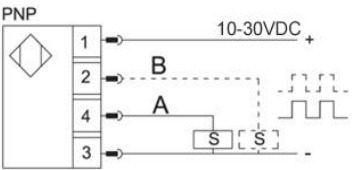
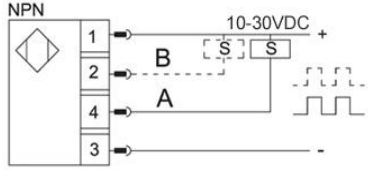
## 2). Dual-pulse Output (Quadrature signal with 90° phase shift)



### Specifications

|                             |                           |
|-----------------------------|---------------------------|
| Power supply                | 10...30VDC                |
| No load current             | <9mA                      |
| Output                      | Push-Pull (PNP / NPN)     |
| Reverse polarity protection | Yes                       |
| Short circuit protection    | Yes                       |
| Ambient temperature         | -40...185°F (-40...85°C)  |
| Probe operating temperature | -40...210°F (-40...98°C)  |
|                             | -40...300°F (-40...148°C) |
|                             | -40...450°F (-40...232°C) |
| Electrical connection       | M12 x 1 plug              |
| Protection class            | IP67                      |

### Wiring

| M12 plug                                                                                                                                                                                                                                                                                                                                                                                                   | PNP   | NPN     |        |   |       |         |   |       |       |   |       |       |   |      |         |                                                                                    |                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------|--------|---|-------|---------|---|-------|-------|---|-------|-------|---|------|---------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  <table border="1"> <thead> <tr> <th>Pin</th><th>Color</th><th>Signal</th></tr> </thead> <tbody> <tr> <td>1</td><td>Brown</td><td>Power +</td></tr> <tr> <td>2</td><td>White</td><td>Pulse</td></tr> <tr> <td>4</td><td>Black</td><td>Pulse</td></tr> <tr> <td>3</td><td>Blue</td><td>Power -</td></tr> </tbody> </table> | Pin   | Color   | Signal | 1 | Brown | Power + | 2 | White | Pulse | 4 | Black | Pulse | 3 | Blue | Power - |  |  |
| Pin                                                                                                                                                                                                                                                                                                                                                                                                        | Color | Signal  |        |   |       |         |   |       |       |   |       |       |   |      |         |                                                                                    |                                                                                     |
| 1                                                                                                                                                                                                                                                                                                                                                                                                          | Brown | Power + |        |   |       |         |   |       |       |   |       |       |   |      |         |                                                                                    |                                                                                     |
| 2                                                                                                                                                                                                                                                                                                                                                                                                          | White | Pulse   |        |   |       |         |   |       |       |   |       |       |   |      |         |                                                                                    |                                                                                     |
| 4                                                                                                                                                                                                                                                                                                                                                                                                          | Black | Pulse   |        |   |       |         |   |       |       |   |       |       |   |      |         |                                                                                    |                                                                                     |
| 3                                                                                                                                                                                                                                                                                                                                                                                                          | Blue  | Power - |        |   |       |         |   |       |       |   |       |       |   |      |         |                                                                                    |                                                                                     |

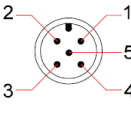
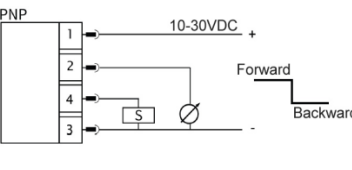
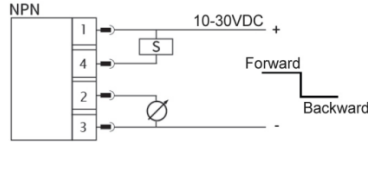
## 3). 4...20mA Output with Flow Directional Detection



### Specifications

|                             |                                               |
|-----------------------------|-----------------------------------------------|
| Power supply                | 10...30VDC                                    |
| No load current             | <9mA                                          |
| Output                      | 4...20mA + switch signal (for flow direction) |
| Reverse polarity protection | Yes                                           |
| Short circuit protection    | Yes                                           |
| Ambient temperature         | -40...185°F (-40...85°C)                      |
| Probe operating temperature | -40...210°F (-40...98°C)                      |
|                             | -40...300°F (-40...148°C)                     |
|                             | -40...450°F (-40...232°C)                     |
| Electrical connection       | M12 x 1 plug                                  |
| Protection class            | IP67                                          |

### Wiring

| M12 plug                                                                                                                                                                                                                                                                                                                                                                                                                | PNP   | NPN           |        |   |       |         |   |       |          |   |       |               |   |      |         |                                                                                      |                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------------|--------|---|-------|---------|---|-------|----------|---|-------|---------------|---|------|---------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  <table border="1"> <thead> <tr> <th>Pin</th><th>Color</th><th>Signal</th></tr> </thead> <tbody> <tr> <td>1</td><td>Brown</td><td>Power +</td></tr> <tr> <td>2</td><td>White</td><td>4...20mA</td></tr> <tr> <td>4</td><td>Black</td><td>Switch output</td></tr> <tr> <td>3</td><td>Blue</td><td>Power -</td></tr> </tbody> </table> | Pin   | Color         | Signal | 1 | Brown | Power + | 2 | White | 4...20mA | 4 | Black | Switch output | 3 | Blue | Power - |  |  |
| Pin                                                                                                                                                                                                                                                                                                                                                                                                                     | Color | Signal        |        |   |       |         |   |       |          |   |       |               |   |      |         |                                                                                      |                                                                                       |
| 1                                                                                                                                                                                                                                                                                                                                                                                                                       | Brown | Power +       |        |   |       |         |   |       |          |   |       |               |   |      |         |                                                                                      |                                                                                       |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                       | White | 4...20mA      |        |   |       |         |   |       |          |   |       |               |   |      |         |                                                                                      |                                                                                       |
| 4                                                                                                                                                                                                                                                                                                                                                                                                                       | Black | Switch output |        |   |       |         |   |       |          |   |       |               |   |      |         |                                                                                      |                                                                                       |
| 3                                                                                                                                                                                                                                                                                                                                                                                                                       | Blue  | Power -       |        |   |       |         |   |       |          |   |       |               |   |      |         |                                                                                      |                                                                                       |



**Order code****1. Model**

S2000D- Dual-sensor for positive displacement flow meter

**2. Output**

P1 Single pulse output with 4 x pulse resolution  
P2 Dual-pulse Output  
A 4...20mA with Flow Directional Detection  
V -10...10V

**3. Temperature**

T1 -40...210°F (-40...98°C)  
T2 -40...300°F (-40...148°C)  
T3 -40...450°F (-40...232°C)