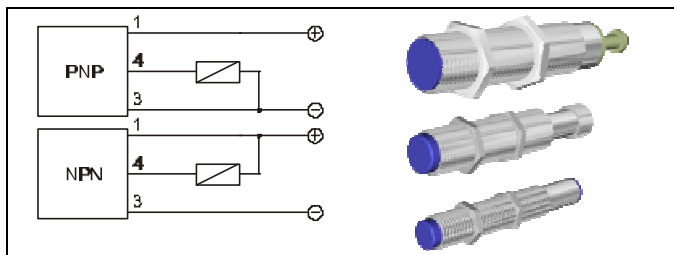


**Inductive Sensors with Fixed Output SPIF**

- ◆ Low price and High reliability
- ◆ Up to 15 mm sense
- ◆ Diameters from 4 to 30 mm

The COMECO inductive sensor series **SPIF**, manufactured by INFRA, cover a wide range of most popular and well-known sensors with fixed output. This series includes inductive sensors from 4 to 30 mm diameters. Using the shown wiring diagrams, the operator can simulate NPN, PNP, NO or NC output logic.



**Technical specifications**

**Power supply**

|                             |                          |
|-----------------------------|--------------------------|
| <b>Supply voltage</b>       | 10 to 30 VDC (+10% -15%) |
| <b>Absorption at 24 VDC</b> | < 10 mA                  |

**Output**

|                                 |                                      |
|---------------------------------|--------------------------------------|
| <b>Output type</b>              | NO or NC, selectable                 |
| <b>Switching possibilities</b>  | 200 mA (100mA for Ø4/5)              |
| <b>Voltage drop at 100mA</b>    | 1V(4/5), 1.2V(6.5/8/12), 1.8V(18/30) |
| <b>Hysteresis</b>               | maximum 10%                          |
| <b>Residual ripple</b>          | maximum 10%                          |
| <b>Start-up delay</b>           | < 50 ms                              |
| <b>Short circuit protection</b> | Yes (self-reset)                     |
| <b>Electric protection</b>      | Against polarity reverse             |

**Indication and adjusting**

|                   |               |
|-------------------|---------------|
| <b>Indication</b> | Operation LED |
| <b>Pre-set</b>    | factory set   |

**Operating conditions**

|                              |                                |
|------------------------------|--------------------------------|
| <b>Operating temperature</b> | -25 to 60 °C (70 °C for 6.5/8) |
| <b>Storage temperature</b>   | -40 to 80 °C                   |

**Design and materials**

|                                  |   |
|----------------------------------|---|
| <b>Casing material</b>           | Up to Ø8 - stainless steel<br>Ø12/18/30 - Nickel plated brass |
| <b>Wiring</b>                    | 2m cable 3x0.14 or 3x0.25 mm <sup>2</sup>                     |
| <b>Output connector (option)</b> | 4-pin connector M8 or M12                                     |
| <b>Protection class</b>          | IP-67   |

SP

| Diameter  | Æ4      |  | Æ5      |  | Æ6.5                                |  | Æ8                                  |  |
|---|---------|--|---------|--|-------------------------------------|--|-------------------------------------|--|
| <b>Parameter</b>                                  |         |  |         |  |                                     |  |                                     |  |
| <b>Shield</b>                                     | Yes     |  | Yes     |  | Yes   No                            |  | Yes   No                            |  |
| <b>Switching distance</b>                         | 0.8 mm  |  | 0.8 mm  |  | 1.5 or 2 mm <sup>(1)</sup>   2 mm   |  | 1.5 or 2 mm <sup>(1)</sup>   2 mm   |  |
| <b>Switching frequency</b>                        | 0.8 kHz |  | 0.8 kHz |  | 1 or 0.5 kHz <sup>(1)</sup>   1 kHz |  | 1 or 0.5 kHz <sup>(1)</sup>   1 kHz |  |
| <b>Repeatability</b>                              | ≤ 1%    |  | ≤ 1%    |  | ≤ 1%                                |  | ≤ 1%                                |  |
| <b>Weight with cable or with connector M8/M12</b> | 50 g    |  | 50 g    |  | 80 g                                |  | 80 g                                |  |

| Diameter  | Æ12                                 |  | Æ18                                 |  | Æ30                                     |  |
|---|-------------------------------------|--|-------------------------------------|--|---|--|
| <b>Parameter</b>                                  |                                     |  |                                     |  |   |  |
| <b>Shield</b>                                     | Yes   No                            |  | Yes   No                            |  | Yes   No                                |  |
| <b>Switching distance</b>                         | 2 or 4 mm <sup>(1)</sup>   4 mm     |  | 5 or 8 mm <sup>(1)</sup>   8 mm     |  | 10 or 15 mm <sup>(1)</sup>   15 mm      |  |
| <b>Switching frequency</b>                        | 1 or 0.5 kHz <sup>(1)</sup>   1 kHz |  | 1 or 0.5 kHz <sup>(1)</sup>   1 kHz |  | 0.3 or 0.2 kHz <sup>(1)</sup>   0.3 kHz |  |
| <b>Repeatability</b>                              | ≤ 1%                                |  | ≤ 1%                                |  | ≤ 1%                                    |  |
| <b>Weight with cable or with connector M8/M12</b> | 110 g                               |  | 145 g                               |  | 210 g                                   |  |
|   | 60/60 g                             |  | /95 g                               |  | /170 g                                  |  |

<sup>(1)</sup> For increased sensing range only

**Ordering code**



**SPIF - G0.G1.G2.G3 - #1**

| Code      | Feature or option   | Code values   |
|-----------|---------------------|---|
| <b>G0</b> | Housing type        | <b>N</b> - normal, <b>S</b> - short type. Not available for Ø4 and M5.  |
| <b>G1</b> | Mounting thread     | <b>4</b> - Ø4, <b>5</b> - M5x0.5, <b>6</b> - Ø6.5, <b>8</b> - M8x1, <b>12</b> - M12x1, <b>18</b> - M18x1, <b>30</b> - M30x1.5 |
| <b>G2</b> | Input sensing range | <b>N</b> - normal, <b>I</b> - increased. All sensors with increased range have SHORT housings!                                |
| <b>G3</b> | Output type         | <b>ON</b> - NO NPN, <b>CN</b> - NC NPN, <b>OP</b> - NO PNP, <b>CP</b> - NC PNP  |
| <b>#1</b> | Output connector    | <b>X</b> - none (cable output), <b>C1</b> - output connector M12, <b>C2</b> - output connector M8                             |