M5 SERIES

There are millions of inductive sensors deployed in almost every area of factory automation. They detect metal objects contactless and are distinguished by a long operating life and extreme robustness. The Datalogic Automation inductive family provides the right solution to market requirements, offering a wide range of cylindrical and rectangular standard sensors with one or two set switching distances, available also with two, three or four wires connection models, short and standard housing and cable or connector version. Stainless steel version for both harsh environments or for FOOD applications.

HIGHLIGHTS

- Wide range: suitable practically for all the industrial applications
- Stainless steel versions: suitable for food applications
- 1X and 2 X operating distances: high detection reliability and precise reading
- 2, 3 or 4 wire connection: flexible connection system to meet customer applications

APPLICATIONS

- Automatic warehouse
- Automotive
- Transportation lines
- Packaging lines
10÷30 V DC - 3 WIRES NPN OR PNP OUTPUT

- Range, 0.8 mm - flush
- NO output
- Cable or M8 quick connect models

TECHNICAL DATA

<table>
<thead>
<tr>
<th>Description</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Switching Distance (Sn)</td>
<td>0.8 mm</td>
</tr>
<tr>
<td>Nominal Voltage</td>
<td>10 ÷ 30 VDC (-15% / +10%)</td>
</tr>
<tr>
<td>Residual Ripple</td>
<td>≤ 10%</td>
</tr>
<tr>
<td>Hysteresis</td>
<td>&lt; 10%</td>
</tr>
<tr>
<td>Max. Output Current</td>
<td>100 mA</td>
</tr>
<tr>
<td>Residual Current</td>
<td>≤ 10 mA</td>
</tr>
<tr>
<td>Voltage Drop (Sensor ON)</td>
<td>&lt; 1 V (I = 100 mA)</td>
</tr>
<tr>
<td>Operation LED</td>
<td>Present</td>
</tr>
<tr>
<td>Switching Frequency</td>
<td>2000 Hz</td>
</tr>
<tr>
<td>Start Up Delay</td>
<td>≤ 50 ms</td>
</tr>
<tr>
<td>Repeatability</td>
<td>≤ 1%</td>
</tr>
<tr>
<td>Short Circuit Protection</td>
<td>Present (self-resetting)</td>
</tr>
<tr>
<td>Electric Protections</td>
<td>Against polarity reversal and inductive loads</td>
</tr>
<tr>
<td>Temperature Limits</td>
<td>-25 ÷ +60 °C</td>
</tr>
<tr>
<td>Protection Degree</td>
<td>IP 67</td>
</tr>
<tr>
<td>Cable Length</td>
<td>2 m</td>
</tr>
<tr>
<td>Cable Section</td>
<td>3 x 0.14 mm²</td>
</tr>
<tr>
<td>Housing Material</td>
<td>Stainless-steel</td>
</tr>
<tr>
<td>Weight - Cable output</td>
<td>50 g</td>
</tr>
<tr>
<td>Weight - M8 connector output</td>
<td>40 g</td>
</tr>
</tbody>
</table>

WIRING DIAGRAMS

- NPN
- PNP

CONNECTION WITH CONNECTOR M8

<table>
<thead>
<tr>
<th>Contacts Configuration</th>
<th>Available</th>
<th>Contacts numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPN/PNP</td>
<td>+</td>
<td>—</td>
</tr>
</tbody>
</table>

DIMENSIONS (mm)

- Configuration with cable
- Configuration with connector M8

www.automation.datalogic.com
**MODEL SELECTION AND ORDER INFORMATION**

### 2MT Cable

<table>
<thead>
<tr>
<th>CODE</th>
<th>MODEL</th>
<th>RANGE</th>
<th>HOUSING</th>
<th>STEEL/AISI304</th>
<th>FLUSH</th>
<th>WIRES</th>
<th>NPN/PNP</th>
<th>NO/NC</th>
</tr>
</thead>
<tbody>
<tr>
<td>95B061021</td>
<td>IS-05-A3-03</td>
<td>1X</td>
<td>STANDARD</td>
<td></td>
<td>•</td>
<td>3</td>
<td>NPN</td>
<td>NO</td>
</tr>
<tr>
<td>95B061041</td>
<td>IS-05-A1-03</td>
<td>1X</td>
<td>STANDARD</td>
<td></td>
<td>•</td>
<td>3</td>
<td>PNP</td>
<td>NO</td>
</tr>
</tbody>
</table>

### M8 Connector

<table>
<thead>
<tr>
<th>CODE</th>
<th>MODEL</th>
<th>RANGE</th>
<th>HOUSING</th>
<th>STEEL/AISI304</th>
<th>FLUSH</th>
<th>WIRES</th>
<th>NPN/PNP</th>
<th>NO/NC</th>
</tr>
</thead>
<tbody>
<tr>
<td>95B061031</td>
<td>IS-05-A3-S1</td>
<td>1X</td>
<td>STANDARD</td>
<td></td>
<td>•</td>
<td>3</td>
<td>NPN</td>
<td>NO</td>
</tr>
<tr>
<td>95B061051</td>
<td>IS-05-A1-S1</td>
<td>1X</td>
<td>STANDARD</td>
<td></td>
<td>•</td>
<td>3</td>
<td>PNP</td>
<td>NO</td>
</tr>
</tbody>
</table>

### MODEL DESCRIPTION

**IS - 04 - A1 - 03**

**Diameter**
- 04 = 4mm
- 05 = 5mm
- 65 = 6.5mm
- 08 = 8mm
- 12 = 12mm
- 18 = 18mm
- 30 = 30mm
- 40 = 40x40mm SQUARE
- 80 = 80x80mm SQUARE
- 88 = 8x8mm SQUARE

**Construction**
- A= flush standard housing
- B= flush short housing
- BB= flush extra short housing
- C= non flush standard housing
- D= non flush short housing
- E= flush standard housing double range
- F= non flush standard housing double range
- G= flush short housing double range
- GG= flush extra short housing double range
- H= non flush short housing double range
- I= flush standard housing metal face
- L= non flush standard housing metal face
- M= flush short housing steel
- N= non flush short housing steel
- O= flush short housing steel double range
- P= non flush short housing steel double range
- Q= flush 8x8mm square housing
- R= flush 8x8mm square housing double range
- S= flush standard housing steel
- T= non flush standard housing steel
- U= flush standard housing steel double range
- V= non flush standard housing steel double range
- W= flush 40x40mm square housing
- X= flush 40x40mm short square housing
- Y= non flush 40x40mm square housing
- Z= non flush 40x40mm short square housing

**Output**
- 1 = 10-30 Vdc PNP NO
- 2 = 10-30 Vdc PNP NC
- 3 = 10-30 Vdc NPN NO
- 4 = 10-30 Vdc NPN NC
- 5 = 10-30 Vdc PNP NO-NC
- 6 = 10-30 Vdc NPN NO-NC
- 7 = 24-230Vac – 2 wires NO
- 8 = 24-230Vac – 2 wires NC
- 9 = 10-30 Vdc - 2 wires NO-NC
- 0 = 10-30 Vdc - 4 wires
- 11 = Analog 4-20mA
- 12 = Analog 0-10V
- 13 = Analog 0-10V/4-20mA
- 14 = Analog 0-5V/1-5mA
- 15 = 20-250Vac/Vdc-2 and 3 wires NO
- 20 = NAMUR

**Connection**
- 02 = Cable 500mm
- 03 = Cable 2mt
- 04 = Cable 700mm
- S1 = M8 connector
- S2 = M12 connector
- S3 = terminal block
- S4 = unf 1/2" (only for square housing version)

Note: Not all code combinations are available. Please refer to alphabetical model index for the list of available models.