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*The right solution for your requirement*

**DERZMANN**



DERZMANN provide full range of industrial speed sensors and control modules. These sensors provide solutions for speed sensing and control applications. We offer more than 50 types of sensors modules allows straight forward signal detection, monitoring and conditioning.

Sensors are available with Hall and VR technologies with cable or connector interfaces. Sizes range from 3/8-24 and M10X1 to 3/4-16 and M16X1.5. Sensor capability ranges from zero speed to high frequency detection and all units have sealed sensing areas to prevent liquid intrusion. Also available are direction sensing units and hazardous location versions for both North America (NEC, CEC) and Europe (ATEX).

DERZMANN sensors can be used to provide either a complete measurement chain solution or individual speed sensing products as needed. Technical product overviews follow in this brochure.

**VR Electromagnetic Speed Sensors**

- Temperature rating: -40...125°C
- Signal output: Frequency and amplitude proportional to speed
- Frequency range: up to 20 kHz
- Electrical: Sine wave output, 850 Ohm, 135 mH
- Module / DP Range: M: 0.5 or larger / DP: 50 or coarser

Type	Housing	Connection	Mechanical
E12A	Threaded M12x1 stainless steel IP67	Connector, M12x1, 4 pin, sealed	Overall length: 60 mm Thread length: 40 mm
E12S	Threaded M12x1 stainless steel IP67	Cable, silicone, 1m 0.34 mm <sup>2</sup> , AWG 22	Overall length: 69 mm Thread length: 50 mm
E16A	Threaded M16x1.5 stainless steel IP67	Connector, M12x1, 4 pin, sealed	Overall length: 60 mm Thread length: 40 mm
E16A25	Threaded M16x1.5 stainless steel IP67	Connector, M12x1, 4 pin, sealed	Overall length: 84 mm Thread length: 64 mm
E16A40	Threaded M16x1.5 stainless steel IP67	Connector, M12x1, 4 pin, sealed	Overall length: 122 mm Thread length: 102 mm
E16AM	Threaded M16x1.5 stainless steel IP67	Connector, MS 3102A-10SL-4P, 2 pin	Overall length: 61 mm Thread length: 33 mm
E16AM25	Threaded M16x1.5 stainless steel IP67	Connector, MS 3102A-10SL-4P, 2 pin	Overall length: 92 mm Thread length: 64 mm
E16AM40	Threaded M16x1.5 stainless steel IP67	Connector, MS 3102A-10SL-4P, 2 pin	Overall length: 130 mm Thread length: 102 mm
E16S	Threaded M16x1.5 stainless steel IP67	Cable, silicone, 1 m 0.34 mm <sup>2</sup> , AWG 22	Overall length: 69 mm Thread length: 50 mm
E16S25	Threaded M16x1.5 stainless steel IP67	Cable, silicone, 1 m 0.34 mm <sup>2</sup> , AWG 22	Overall length: 83 mm Thread length: 64 mm
E16S40	Threaded M16x1.5 stainless steel IP67	Cable, silicone, 1 m 0.34 mm <sup>2</sup> , AWG 22	Overall length: 121 mm Thread length: 102 mm
E38A	Threaded 3/8" - 24 UNF stainless steel IP67	Connector, M12x1, 4 pin, sealed	Overall length: 48 mm Thread length: 34 mm
E38S	Threaded 3/8" - 24 UNF stainless steel IP67	Cable, silicone, 1m 0.34 mm <sup>2</sup> , AWG 22	Overall length: 54 mm Thread length: 34 mm
E58A	Threaded 5/8" - 18 UNF stainless steel IP67	Connector, M12x1, 4 pin, sealed	Overall length: 60 mm Thread length: 40 mm
E58A25	Threaded 5/8" - 18 UNF stainless steel IP67	Connector, M12x1, 4 pin, sealed	Overall length: 84 mm Thread length: 64 mm
E58A40	Threaded 5/8" - 18 UNF stainless steel IP67	Connector, M12x1, 4 pin, sealed	Overall length: 121 mm Thread length: 102 mm
E58AM	Threaded 5/8" - 18 UNF stainless steel IP67	Connector, MS 3102A-10SL-4P, 2 pin	Overall length: 61 mm Thread length: 33 mm
E58AM25	Threaded 5/8" - 18 UNF stainless steel IP67	Connector, MS 3102A-10SL-4P, 2 pin	Overall length: 92 mm Thread length: 64 mm
E58AM40	Threaded 5/8" - 18 UNF stainless steel IP67	Connector, MS 3102A-10SL-4P, 2 pin	Overall length: 130 mm Thread length: 102 mm
E58S	Threaded 5/8" - 18 UNF stainless steel IP67	Cable, silicone, 1m 0.34 mm <sup>2</sup> , AWG 22	Overall length: 69 mm Thread length: 50 mm
E58S25	Threaded 5/8" - 18 UNF stainless steel IP67	Cable, silicone, 1 m 0.34 mm <sup>2</sup> , AWG 22	Overall length: 83 mm Thread length: 64 mm
E58S40	Threaded 5/8" - 18 UNF stainless steel IP67	Cable, silicone, 1 m 0.34 mm <sup>2</sup> , AWG 22	Overall length: 121 mm Thread length: 102 mm



**Digital Electromagnetic Speed Sensors**

- Temperature rating: -40...125°C
- Signal output: Frequency proportional to speed
- Frequency range: up to 20 kHz
- Supply Voltage: 5...32 VDC • Electrical: Square wave, NPN with 2.2 kOhm pull up
- Module / DP Range: M: 0.5 or larger / DP: 50 or coarser

Type	Housing	Connection	Mechanical
DV58AM	Threaded 5/8"- 18 UNF stainless steel IP67	Connector, MS 3102A-10SL-3P, 3 pin	Overall length: 61 mm Thread length: 33 mm
DV58AM25	Threaded 5/8"- 18 UNF stainless steel IP67	Connector, MS 3102A-10SL-3P, 3 pin	Overall length: 92 mm Thread length: 64 mm
DV58AM30	Threaded 5/8"- 18 UNF stainless steel IP67	Connector, MS 3102A-10SL-3P, 3 pin	Overall length: 105 mm Thread length: 77 mm
DV58AM40	Threaded 5/8"- 18 UNF stainless steel IP67	Connector, MS 3102A-10SL-3P, 3 pin	Overall length: 130 mm Thread length: 102 mm
DV58S	Threaded 5/8"- 18 UNF stainless steel IP67	Cable, silicone, 1m 0.34 mm <sup>2</sup> , AWG 22	Overall length: 69 mm Thread length: 50 mm
DV58S25	Threaded 5/8"- 18 UNF stainless steel IP67	Cable, silicone, 1 m 0.34 mm <sup>2</sup> , AWG 22	Overall length: 83 mm Thread length: 64 mm
DV58S40	Threaded 5/8"- 18 UNF stainless steel IP67	Cable, silicone, 1 m 0.34 mm <sup>2</sup> , AWG 22	Overall length: 121 mm Thread length: 102 mm

**VR Electromagnetic Speed Sensors - EX ATEX Zone 1/ EX NA Class 1 Div 1**

- Temperature rating: -40...125°C
- Signal output: Frequency and amplitude proportional to speed
- Frequency range: up to 20 kHz
- Electrical: Sine wave output, 250 Ohm, 70 mH coil
- Module / DP Range: M: 1.0 or larger / DP: 25 or coarser CERTIFIED FOR USE IN EXPLOSIVE ATMOSPHERES

Type	Housing	Connection	Mechanical
DX58H	Threaded 5/8"- 18 UNF stainless steel IP67	½ - 14 NPT Cable PTFE, 3 m	Overall length: 88 mm Thread length: 48 mm
DX58H35	Threaded 5/8"- 18 UNF stainless steel IP67	½ - 14 NPT Cable PTFE, 3 m	Overall length: 129 mm Thread length: 89 mm
DX58H85	Threaded 5/8"- 18 UNF stainless steel IP67	½ - 14 NPT Cable PTFE, 3 m	Overall length: 256 mm Thread length: 216 mm
DX34H	Threaded 3/4"- 20 UNF stainless steel IP67	½ - 14 NPT Cable PTFE, 3 m	Overall length: 88 mm Thread length: 48 mm
DX34H35	Threaded 3/4"- 20 UNF stainless steel IP67	½ - 14 NPT Cable PTFE, 3 m	Overall length: 120 mm Thread length: 89 mm



**VR Electromagnetic Speed Sensors**

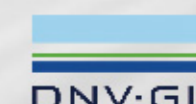
- Temperature rating: -40...200°C
- Signal output: Frequency and amplitude proportional to speed
- Frequency range: up to 20 kHz
- Electrical: Sine wave output, 850 Ohm, 135 mH
- Module / DP Range: M: 0.5 or larger / DP: 50 or coarser

Type	Housing	Connection	Mechanical
D58HAM	Threaded 5/8"- 18 UNF stainless steel IP67	Connector, MS 3102A-10SL-4P, 2 pin	Overall length: 61 mm Thread length: 33 mm

**VR Electromagnetic Speed Sensors - EX NA Class 1 Div 2**

- Temperature rating: -40...125°C
- Signal output: Frequency and amplitude proportional to speed
- Frequency range: up to 20 kHz
- Electrical: Sine wave output, 850 Ohm, 135 mH
- Module / DP Range: M: 0.5 or larger / DP: 50 or coarser CERTIFIED FOR USE IN EXPLOSIVE ATMOSPHERES

Type	Housing	Connection	Mechanical
DX10A	Threaded M10x1 stainless steel IP67	Connector, M12x1 4 pin, sealed	Overall length: 48 mm Thread length: 34 mm
DX10S	Threaded M10x1 stainless steel IP67	Cable, PTFE, 3m 0.21 mm <sup>2</sup> , AWG 24	Overall length: 54 mm Thread length: 34 mm
DX12A	Threaded M12x1 stainless steel IP67	Connector, M12x1 4 pin, sealed	Overall length: 60 mm Thread length: 40 mm
DX12A35	Threaded M12x1 stainless steel IP67	Connector, M12x1 4 pin, sealed	Overall length: 109 mm Thread length: 89 mm
DX38A	Threaded 3/8"- 24 UNF stainless steel IP67	Connector, M12x1 4 pin, sealed	Overall length: 48 mm Thread length: 34 mm
DX38S	Threaded 3/8"- 24 UNF stainless steel IP67	Cable, PTFE, 3m 0.21 mm <sup>2</sup> , AWG 24	Overall length: 54 mm Thread length: 34 mm
DX58AM	Threaded 5/8"- 18 UNF stainless steel IP67	Connector, MS 3102A-10SL-4P, 2 pin	Overall length: 61 mm Thread length: 33 mm
DX58AM25	Threaded 5/8"- 18 UNF stainless steel IP67	Connector, MS 3102A-10SL-4P, 2 pin	Overall length: 92 mm Thread length: 64mm
DX58AM40	Threaded 5/8"- 18 UNF stainless steel IP67	Connector, MS 3102A-10SL-4P, 2 pin	Overall length: 130 mm Thread length: 102 mm
DX58S	Threaded 5/8"- 18 UNF stainless steel IP67	Cable, PTFE, 3 m 0.21 mm <sup>2</sup> , AWG 24	Overall length: 69 mm Thread length: 50 mm
DX58S25	Threaded 5/8"- 18 UNF stainless steel IP67	Cable, PTFE, 3 m 0.21 mm <sup>2</sup> , AWG 24	Overall length: 83 mm Thread length: 64 mm
DX58S40	Threaded 5/8"- 18 UNF stainless steel IP67	Cable, PTFE, 3 m 0.21 mm <sup>2</sup> , AWG 24	Overall length: 121 mm Thread length: 102 mm



**Differential Hall Effect Speed Sensors**

- Temperature rating: -40...125°C
- Signal output: Frequency proportional to speed
- Frequency range: 5 Hz to 20 kHz
- Supply Voltage: 8...32 VDC
- Electrical: Square wave push-pull output

Type	Housing	Connection	Mechanical
DE12A	Smooth 10.8 mm OD flange mount IP67	Connector, M12x1 4 pin, sealed	Overall length: 60 mm Shaft length: 25.7 mm
DE12P	Threaded M12x1 stainless steel IP67	Cu cable insulation PTFE, 0.35 m, 0.21mm <sup>2</sup>	Overall length: 92 mm Thread length: 64 mm
		AWG 24 with connector 3 pin AMP	

**Dual Channel Hall Effect Speed and Direction Sensors**

- Temperature rating: -40...125°C
- Signal output: Frequency proportional to speed (channel 1) and direction (ch 2)
- Frequency range: 0 Hz to 15 kHz
- Supply Voltage: 8...32 VDC
- Electrical: Square wave output, NPN plus direction line
- Module / DP Range: M: 1.0 or larger / DP: 25 or coarser

Type	Housing	Connection	Mechanical
F12A	Threaded M12x1 stainless steel IP67	Connector, M12x1 4 pin, sealed	Overall length: 60 mm Thread length: 40 mm
F12S	Threaded M12x1 stainless steel IP67	Cable, silicone, 1 m 0.34 mm <sup>2</sup> , AWG 22	Overall length: 69 mm Thread length: 50 mm
F16A	Threaded M16x1.5 stainless steel IP67	Connector, M12x1 4 pin, sealed	Overall length: 60 mm Thread length: 40 mm
F16A25	Threaded M16x1.5 stainless steel IP67	Connector, M12x1 4 pin, sealed	Overall length: 84 mm Thread length: 64 mm
F16A40	Threaded M16x1.5 stainless steel IP67	Connector, M12x1 4 pin, sealed	Overall length: 121 mm Thread length: 102 mm
F16S	Threaded M16x1.5 stainless steel IP67	Cable, Silicone, 1m 0.34 mm <sup>2</sup> , AWG 22	Overall length: 69 mm Thread length: 50 mm
F16S25	Threaded M16x1.5 stainless steel IP67	Cable, Silicone, 1m 0.34 mm <sup>2</sup> , AWG 22	Overall length: 83 mm Thread length: 64 mm
F16S40	Threaded M16x1.5 stainless steel IP67	Cable, Silicone, 1m 0.34 mm <sup>2</sup> , AWG 22	Overall length: 121 mm Thread length: 102



**Dual Channel Hall Effect Speed and Direction Sensors**

- Temperature rating: -40...125°C
- Signal output: Frequency proportional to speed (channel 1) and direction (ch 2)
- Frequency range: 0 Hz to 15 kHz
- Supply Voltage: 8...32 VDC
- Electrical: Square wave output, NPN plus direction line
- Module / DP Range: M: 1.0 or larger / DP: 25 or coarser

Type	Housing	Connection	Mechanical
Y12AD	Threaded M12x1 with O-ring and locator key	Connector, M12x1 4 pin, sealed	Overall length: 75 mm Shaft length: 36 mm

**Zero Speed Hall Effect Speed Sensors - continued**

- Temperature rating: -40...125°C
- Signal output: Frequency proportional to speed
- Frequency range: 0 Hz to 15 kHz
- Supply Voltage: 8...25 VDC
- Electrical: Square wave, NPN with 2.7 Ohm pull up
- Module / DP Range: M: 1.0 or larger / DP: 25 or coarser

Type	Housing	Connection	Mechanical
F58A	Threaded 5/8" - 18 UNF stainless steel IP67	Connector, M12x1 4 pin, sealed	Overall length: 60 mm Thread length: 40 mm
F58A25	Threaded 5/8" - 18 UNF stainless steel IP67	Connector, M12x1 4 pin, sealed	Overall length: 84 mm Thread length: 64 mm
F58A40	Threaded 5/8" - 18 UNF stainless steel IP67	Connector, M12x1 4 pin, sealed	Overall length: 121 mm Thread length: 102 mm
F58AM	Threaded 5/8" - 18 UNF stainless steel IP67	Connector, MS 3102A-10SL-3P, 3 pin	Overall length: 61 mm Thread length: 33 mm
F58AM25	Threaded 5/8" - 18 UNF stainless steel IP67	Connector, MS 3102A-10SL-3P, 3 pin	Overall length: 92 mm Thread length: 64 mm
F58AM40	Threaded 5/8" - 18 UNF stainless steel IP67	Connector, MS 3102A-10SL-3P, 3 pin	Overall length: 130 mm Thread length: 102 mm
F58S	Threaded 5/8" - 18 UNF stainless steel IP67	Cable, silicone, 1m 0.34 mm <sup>2</sup> , AWG 22	Overall length: 69 mm Thread length: 50 mm
F58S25	Threaded 5/8" - 18 UNF stainless steel IP67	Cable, silicone, 1m 0.34 mm <sup>2</sup> , AWG 22	Overall length: 83 mm Thread length: 60 mm
F58S40	Threaded 5/8" - 18 UNF stainless steel IP67	Cable, silicone, 1m 0.34 mm <sup>2</sup> , AWG 22	Overall length: 121 mm Thread length: 102 mm

