

Data Sheet

# Concept of the Future

## EMD Speed Sensor

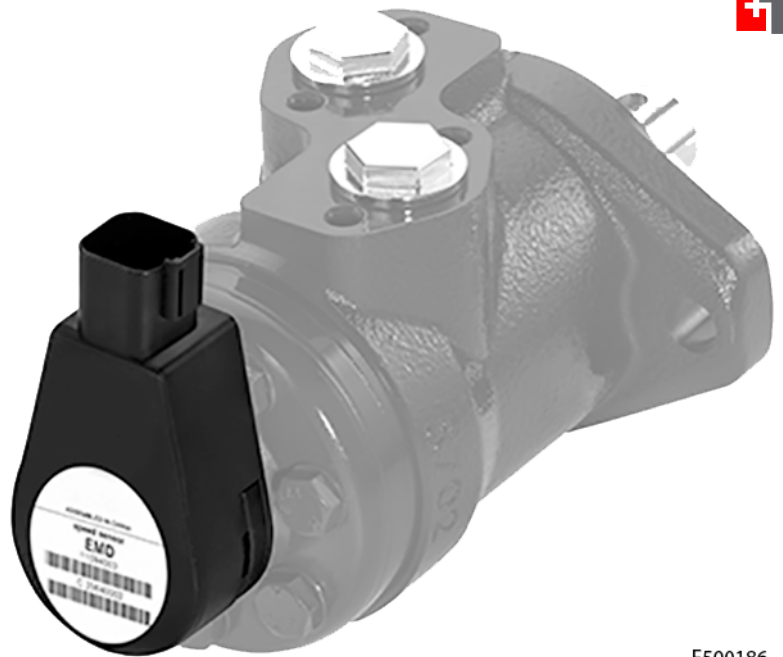


### EMD Speed Sensor for Orbital motors

- Available for following LSHT-motors: OMM, OMP, OMR, OMS, OMT, OMV, TMK, TMT and TMV
- Flexible and adaptable speed sensor solution that covers many application needs
- Speed and Direction output
- Highest resolution in the market
- Easy mounting
- Sensor is not in contact with oil making it robust and exchangeable in the field
- Compact design
- Patented Design
- IP 69K

### Features

- EMD speed sensor up to 180 pulses/rev
- PLUS+1<sup>®</sup> Compliant
- Rotation speed and direction output available
- Speed range up to 2500 rpm
- Push-pull amplifier
- CAN output signal
- DEUTSCH DT connector – 6 pin



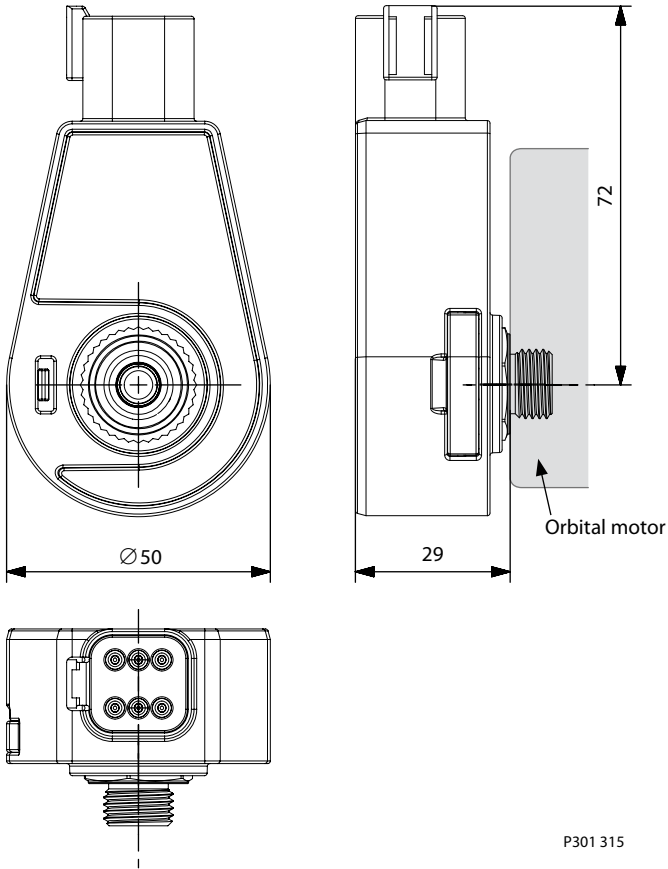
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Comprehensive technical literature online  
at [powersolutions.danfoss.com](http://powersolutions.danfoss.com)

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**Dimensions**



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**Specifications**

			D1	D2
Output signal*	Pulse mode	Push-pull output. Direction = CCW: high, CW: low Configurable up to 180 pulse/revolutions	Square Wave	Direction
	Quadrature mode	2 channels with 90° phaseshift each with 90 pulses/revolution Push-pull output	Square Wave Phase A	Square Wave Phase B
	CAN mode	Supports CAN 2.0B with SAE J1939 Message Protocol with Proprietary Messages Baudrate: 250 kbaud (fixed) Shaft velocity: ± 2500 rpm		
Speed range		0 - 2500 rpm		
Supply voltage		9 - 36 Vdc		
Maximum power		0.8 W		
Temperature range (ambient)		-30 °C to 60 °C		
EMC-Immunity (EMI)		100 V/m ISO 13766		
Grade of enclosure**		IP 69 K		
Vibration		30 G (294 m/s <sup>2</sup> )		
Shock		30 G (294 m/s <sup>2</sup> )		

\* Configurable with PLUS+1<sup>®</sup> Service Tool - Please contact Danfoss for further information.

\*\* According to IEC 529.

**Sensor Pinout**

DEUTSCH DT connector – 6 pin	Pin	Controller function
	1	Power supply 9-36 V dc
	2	Power ground
	3	D1 output
	4	CAN L
	5	CAN H
	6	D2 output

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**Warning**

Please note that the EMD speed sensor may fail. Output signals may not represent correct rotation speed or direction. Any application of the EMD speed sensor should be subjected to appropriate hazard and risk assessment, according to relevant safety standards for the application. Reliability data MTTFd for the EMD speed sensor are available on request from your Danfoss representative.