

PR9376-010-011

Speed Proximity Sensor

Emerson PR9376-010-011 is a Hall-effect speed and proximity sensor for detecting a rotating ferromagnetic target. The selected configuration uses the PR9376/010 body with protective hose, 5 m cable and open cable end.

BRAND	Emerson	ORIGIN	USA
MODEL	PR9376-010-011	PRODUCT	Speed Proximity Sensor
FAMILY	PR9376 Hall-Effect Sensors	SOURCE	Emerson data sheet, August 2024; PR9376 ordering matrix

MANUFACTURER SOURCE RECORD

PR9376 Hall Effect Speed/Proximity Sensor Data Sheet
Emerson data sheet, August 2024; PR9376 ordering matrix

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PR9376-010-011

Product Overview

SYSTEM FUNCTION

Emerson PR9376-010-011 is a Hall-effect speed and proximity sensor for detecting a rotating ferromagnetic target. The selected configuration uses the PR9376/010 body with protective hose, 5 m cable and open cable end.

FUNCTION 1

Generates one pulse cycle per tooth or revolution

FUNCTION 2

Supports pulse frequencies to 12 kHz

FUNCTION 3

Uses a 10–30 VDC Hall-effect circuit

FUNCTION 4

Provides an IP67 stainless-steel sensor body

TECHNICAL NOTE

Set the sensor-to-target air gap for the actual gear module and verify the target is magnetically soft iron or steel, not stainless steel. Confirm 10–30 VDC supply, output levels and pulse frequency before enabling speed protection.

Technical Data and Acceptance

PARAMETER	VERIFIED VALUE
Complete order code	PR9376-010-011
Sensor principle	Hall effect
Output	One AC cycle per revolution or gear tooth
Maximum frequency	12 kHz
Supply	10–30 VDC; maximum 25 mA
Output high	Above 10 V at 12 VDC / 100 k Ω
Output low	Below 1 V at 12 VDC / 100 k Ω
Air gap	1 mm for module 1; 1.5 mm for module 2 or larger
Protection	IP67
Operating temperature	-25 to +100 °C

ENGINEERING BOUNDARY

Set the sensor-to-target air gap for the actual gear module and verify the target is magnetically soft iron or steel, not stainless steel. Confirm 10–30 VDC supply, output levels and pulse frequency before enabling speed protection.

Acceptance Path

1 IDENTITY

The exact sensor and target are recorded.

2 MECHANICAL

The air gap is correct and mechanically secure.

3 ELECTRICAL

Supply and logic levels meet the documented values.

4 FUNCTIONAL PROOF

Pulse frequency, indicated speed and protection action agree.

Applications and Engineering FAQ

APPLICATION	ENGINEERING CONTEXT
Turbine speed pickup	Detects passing ferromagnetic teeth for speed monitoring.
Keyphasor reference	Produces a once-per-revolution reference when aimed at a suitable target.
Gear-tooth frequency measurement	Converts each tooth passage into a logic-level pulse train.
Overspeed input sensing	Supplies a documented proximity pulse to compatible protection hardware.

Model-Specific FAQ - Part 1

QUESTION	ANSWER
What target material is required for Emerson PR9376-010-011?	Use magnetically soft iron or steel. The official data sheet excludes stainless steel as the target material.
How much air gap should Emerson PR9376-010-011 have?	Emerson specifies 1 mm for a module-1 target and 1.5 mm for module 2 or larger.
What is the maximum pulse frequency of Emerson PR9376-010-011?	The documented maximum frequency is 12 kHz.
What supply is required by Emerson PR9376-010-011?	The sensor operates from 10–30 VDC and draws no more than 25 mA.

FAQ, Related Products and Source

QUESTION	ANSWER
What output levels should be measured from Emerson PR9376-010-011?	At 12 VDC with a 100 kΩ load, high is above 10 V and low is below 1 V.
How many pulses does Emerson PR9376-010-011 create?	It produces one AC cycle for every passing gear tooth or one cycle per revolution when used with a single target.
What environmental rating applies to Emerson PR9376-010-011?	The official data sheet specifies IP67 and an operating range of -25 to +100 °C.
How should Emerson PR9376-010-011 speed scaling be validated?	Record the target tooth count, rotate at a controlled reference speed, compare pulse frequency with calculated speed and prove the configured alarm or trip path.

MANUFACTURER SOURCE RECORD

PR9376 Hall Effect Speed/Proximity Sensor Data Sheet
Emerson data sheet, August 2024; PR9376 ordering matrix

Related Products on Apter Power

MODEL	APTER POWER PAGE
Bently Nevada 139554-01	View Bently Nevada 139554-01
Bently Nevada 140471-02	View Bently Nevada 140471-02
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Bently Nevada 143493-00-080-040-50-00	View Bently Nevada 143493-00-080-040-50-00
Bently Nevada 143729-01	View Bently Nevada 143729-01
Bently Nevada 144181-51	View Bently Nevada 144181-51
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Bently Nevada 146054-034-20-02-05	View Bently Nevada 146054-034-20-02-05

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