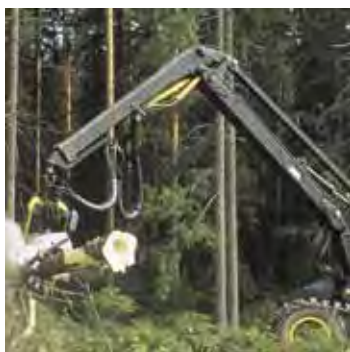




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# RS52 Sensors

Catalog HY33-2351/US



ENGINEERING YOUR SUCCESS.

## Application

The RS52 rotary sensor belongs to the Parker family of accessories provided to complement electronic control systems. The RS52 is a 0-5V output, non-contact, rotary sensor suitable for a variety of applications. The RS52 sensor has a working range of 90 degrees. The sensor has twelve inch leads and an attached Deutsch connector. To make the sensor suitable for mobile equipment, we have focused upon properties such as reliability, electromagnetic immunity and ease of installation.

## Properties

### Reliability

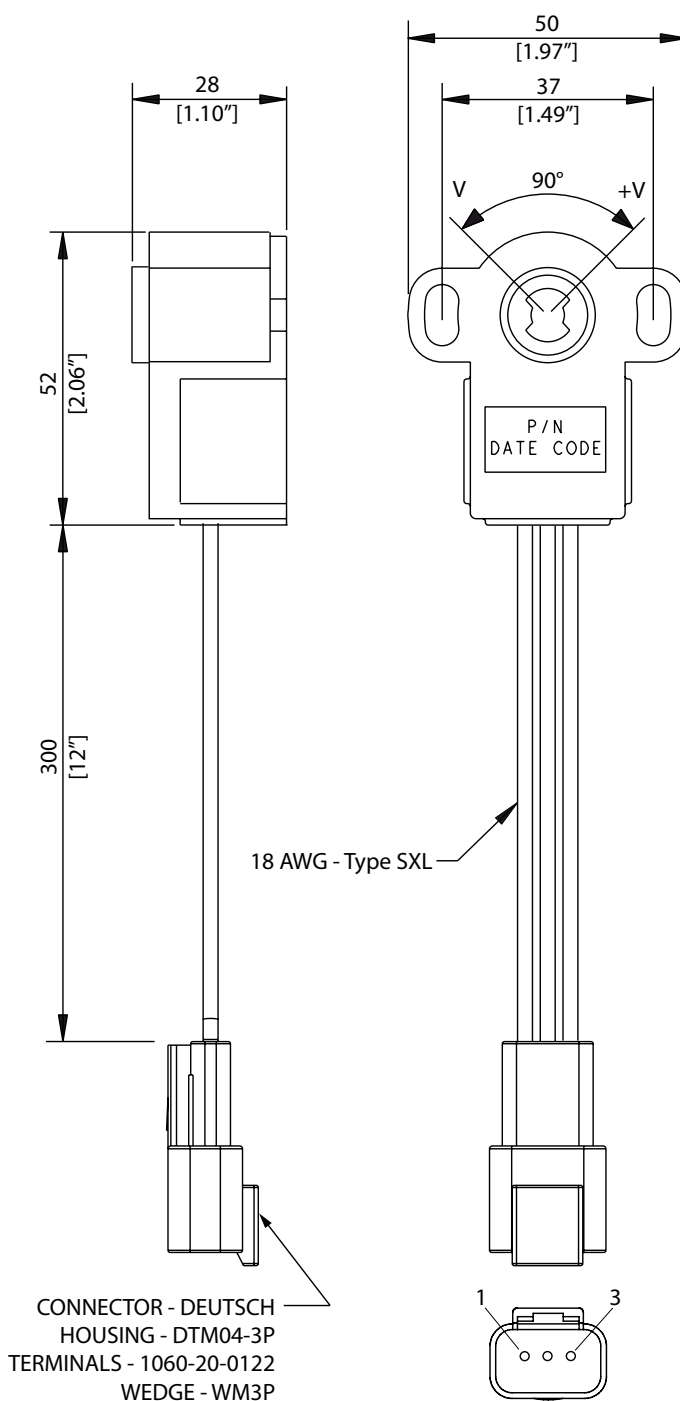
The RS52 has a glass-filled nylon plastic construction for strength and corrosion resistance. The sensor uses non-contact, Hall-effect technology for trouble free operation. The sensor is very robust and able to withstand rugged applications.

### Electromagnetic immunity

The design of the RS52 has a high level of EMI protection. The sensor is also over-voltage and reverse polarity protected.

### Installation

The RS52 is well designed for the mobile hydraulics industry. The 3 pin connector is a sealed Deutsch DTM type designed for automotive use. This connector, combined with potted electronics, gives the sensor IP66 protection for exposed outdoor applications. The mounting holes are slotted for easy alignment. These features provide for easy installation and removal, even in field conditions.



**General**

Weight	72 g
Temperature range	-40°C to 125°C
Operating life	10 million cycles
Total error ( $\leq 80^\circ$ ) <sup>1)</sup>	Max 3.0 % FS
Hysteresis	1.0% when no shaft end float is allowed

1) Total accuracy includes non-linearity, hysteresis, repeatability and temperature effects.

**Mechanical characteristics**

Angular travel	110°
Connector	Deutsch DTM

**Electrical specifications**

Working angle	90°
Supply Voltage(Vs)	5.0+/-10% Vdc
Current supply	Max 12.0 mA
Output at FS <sup>2)</sup>	4.5 V
Zero output <sup>2)</sup>	0.5 V
Output current	Max. 1.0 mA

2) The output is ratiometric to supply voltage (Vs)

**Ordering part number**

RS52 01709

**Environmental protection****EMI**

ISO 11452-2	150 V/m
ISO 11452-4	100 mA

**ESD**

EN 61000-4-2	7 kV
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**Mechanical**

Shock	1m drop
Vibration	30 Gs

**Climate**

Sealing (electronics)	IP66
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**Chemical environment**

Liquids (resistance)	standard automotive
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**WARNING - USER RESPONSIBILITY**

**FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.**

- This document and other information from Parker-Hannifin Corporation, its subsidiaries and authorized distributors provide product or system options for further investigation by users having technical expertise.
- The user, through its own analysis and testing, is solely responsible for making the final selection of the system and components and assuring that all performance, endurance, maintenance, safety and warning requirements of the application are met. The user must analyze all aspects of the application, follow applicable industry standards, and follow the information concerning the product in the current product catalog and in any other materials provided from Parker or its subsidiaries or authorized distributors.
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