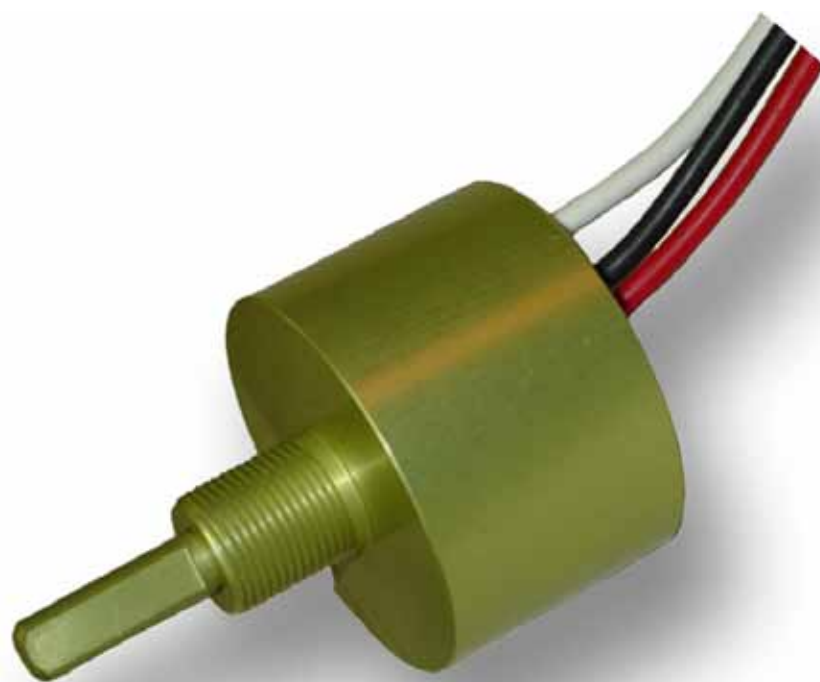




aerospace  
climate control  
electromechanical  
filtration  
fluid & gas handling  
**hydraulics**  
pneumatics  
process control  
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# RF50 Sensors

Catalog HY33-2355/US



ENGINEERING YOUR SUCCESS.

## Application

The RF50 rotary control belongs to the Parker family of accessories provided to complement electronic control systems. The RF50 is a 0-5V output, non-contact rotary control for mobile hydraulic applications. The RF50 has twelve inch leads and an attached Deutsch connector. To make the control suitable for mobile equipment, we have focused upon properties such as reliability, electromagnetic immunity and ease of installation.

## Properties

### Reliability

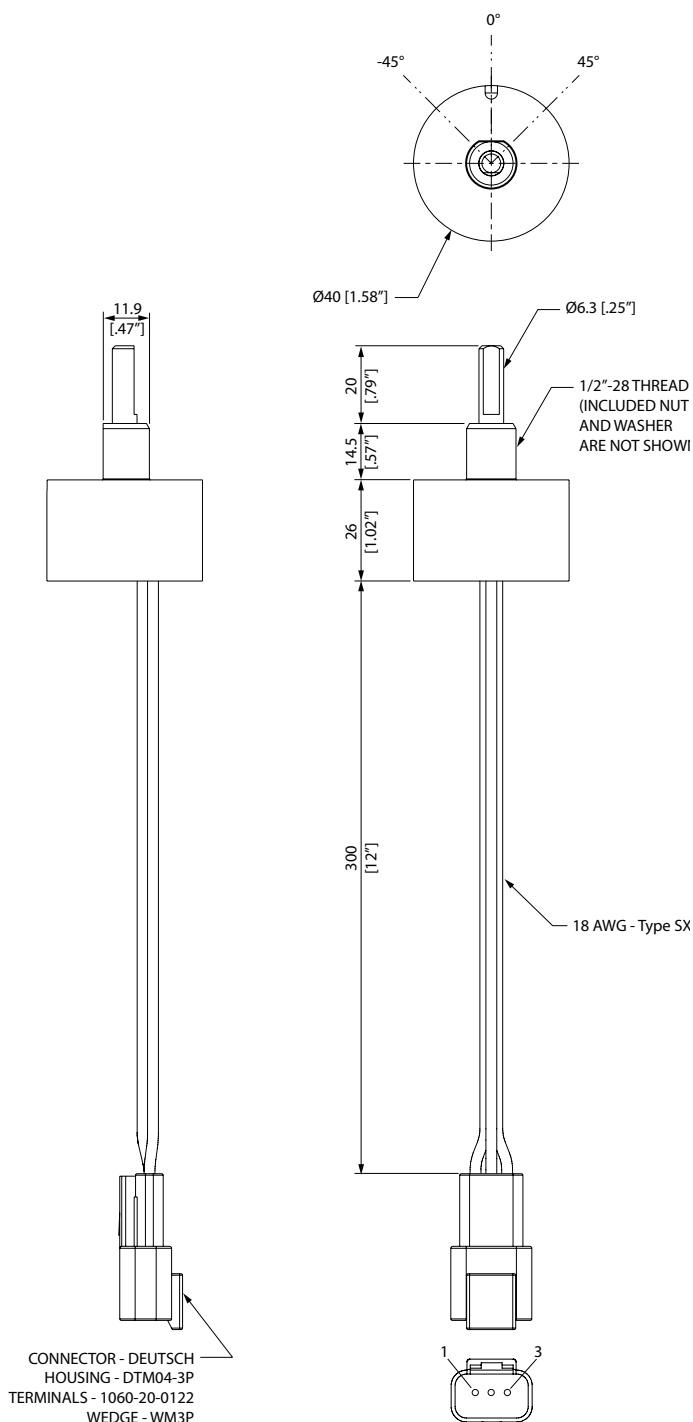
The RF50 has anodized aluminum construction for strength and corrosion resistance. The control uses non-contact, Hall-effect technology for trouble free operation. The control is very robust and able to withstand rugged applications.

### Electromagnetic immunity

The RF50 has a high level of EMI protection.

### Installation

The RF50 is well suited for the mobile hydraulics industry. The 3 pin connector is a sealed Deutsch type designed for automotive use. This connector combined with potted electronics gives the control IP66 protection for exposed outdoor applications. The locating flat on the threads provides for easy alignment. The mounting nut and washer are supplied. These features provide for easy installation and removal, even in field conditions.



**General**

Weight	77 g
Temperature range	-40°C to 125°C
Operating life	1 million cycles
Total accuracy	Max 4.0 % FS
Hysteresis	<1.0%

**Mechanical characteristics**

Angular travel	150°
Connector	Deutsch DTM

**Electrical specifications**

Working angle	90°
Supply Voltage(Vs)	5.0+/-10% Vdc
Current supply	Max 12.0 mA
Output at +45° <sup>1)</sup>	4.5 V
Output at 0° <sup>1)</sup>	2.5 V
Output at -45° <sup>1)</sup>	0.5 V
Output current	Max. 1.0 mA

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

**Environmental protection****EMI**

ISO 11452-2	150 V/m
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**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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**Ordering part number**

RF50	01705
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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.
- To the extent that Parker or its subsidiaries or authorized distributors provide component or system options based upon data or specifications provided by the user, the user is responsible for determining that such data and specifications are suitable and sufficient for all applications and reasonably foreseeable uses of the components or systems.

**OFFER OF SALE**

Please contact your Parker representative for a detailed "Offer of Sale".



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