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RS70 Sensors

Catalog HY33-2356/US



ENGINEERING YOUR SUCCESS.

Application

The RS70 rotary sensor belongs to the Parker family of accessories provided to complement electronic control systems. The RS70 is a 0-5V, dual output, non-contact rotary sensor for mobile hydraulic applications. The sensor comes in 2 versions with different working angles. 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

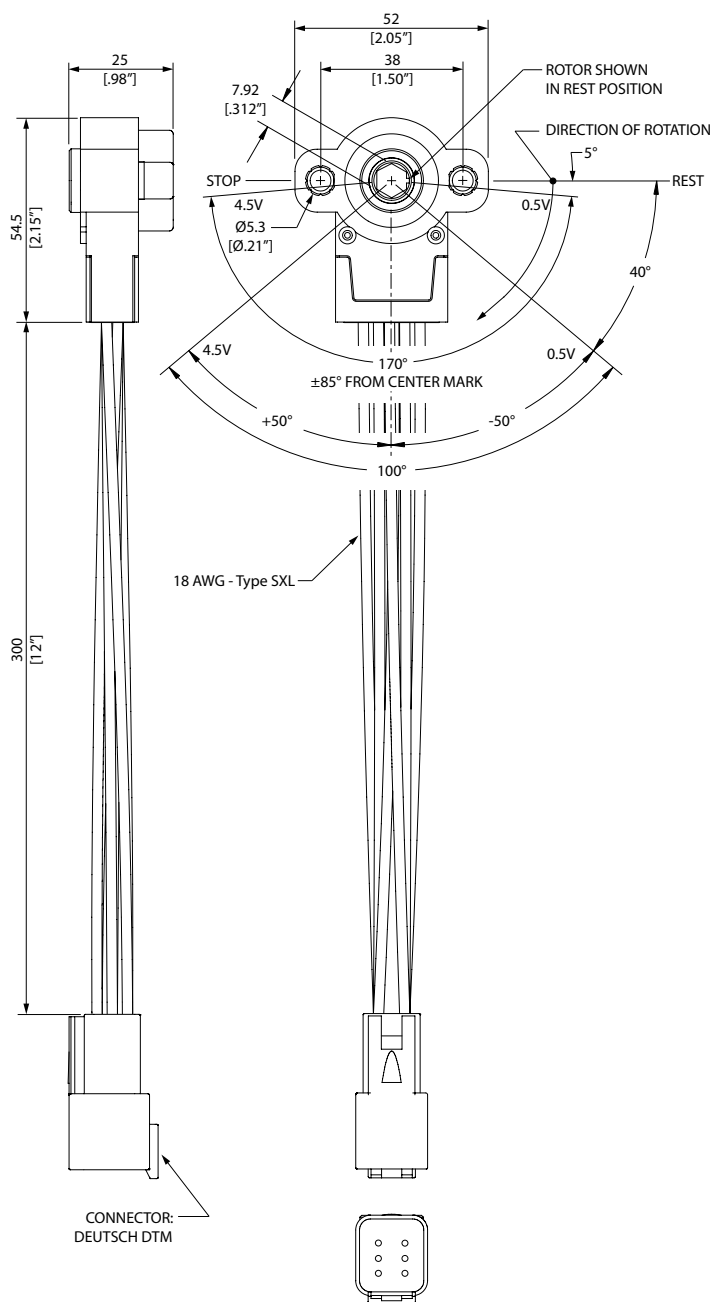
The RS70 has a glass-filled nylon plastic construction for sturdiness and corrosion resistance. The mounting holes are reinforced with brass inserts for added strength. The sensor uses non-contact, Hall-effect technology for trouble free operation. The second output makes this sensor very reliable and adds redundancy. The sensor is very robust and able to withstand rugged applications.

Electromagnetic immunity

The design of the RS70 has a high level of EMI protection.

Installation

The RS70 is well designed for the mobile hydraulics industry. The 6 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 extra large for easy alignment. Two roll pins may be used to provide accurate positioning. These features provide for easy installation and removal, even in field conditions.



General

Weight	118 g
Temperature range	-40°C to 125°C
Operating life	10 million cycles
Total error ($\leq 170^\circ$) ¹⁾	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	180° (both versions)
Connector	Deutsch DTM

Electrical specifications

Working angle ²⁾	170° or 100°
Supply Voltage(Vs)	5.0+/-10% Vdc
Current supply	Max 24.0 mA
Output at FS ³⁾	4.5 V
Zero output ³⁾	0.5 V
Output current	Max. 1.0 mA (each output)

2) Depending on part number

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

Ordering part number

RS70 (170°)	01707
RS70 (100°)	141453

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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**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.

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**OFFER OF SALE**

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

Sales Offices Worldwide

North America

Hydraulics Group Headquarters

6035 Parkland Boulevard
Cleveland, OH 44124-4141 USA
Tel: 216-896-3000
Fax: 216-896-4031

Parker Hannifin Canada

Motion & Control Division – Milton

160 Chisholm Drive Milton
Ontario Canada L9T 3G9
Tel: 905-693-3000
Fax: 905-876-1958

Mexico

Parker Hannifin de México

Av eje uno norte num 100
Parque Industrial Toluca 2000
Toluca, Mex C.P. 50100
Tel: 52 722 2754200
Fax: 52 722 2799308

Europe

Europe Hydraulics Group

Parker Hannifin Corporation

Parker House
55 Maylands Avenue
Hemel Hempstead, Herts
HP2 4SJ England
Tel: 44 1442 458000
Fax: 44 1442 458085

Latin America

Brazil

Hydraulics Division

Parker Hannifin Ind. e Com. Ltda

Av. Frederico Ritter, 1100
Cachoeirinha RS, 94930-000 Brazil
Tel: 55 51 3470 9144
Fax: 55 51 3470 3100

Mobile Sales

Mobile Sales Organization and Global Sales

850 Arthur Avenue
Elk Grove Village, IL 60007 USA
Tel: 847-258-6200
Fax: 847-258-6299

Industrial Sales

Great Lakes Region

3700 Embassy Parkway
Suite 260
Fairlawn, OH 44333 USA
Tel: 330-670-2680
Fax: 330-670-2681

Southern Region

1225 Old Alpharetta Road
Suite 290
Alpharetta, GA 30005 USA
Tel: 770-619-9767
Fax: 770-619-9806

Chicago Region

1163 E. Ogden Avenue
Suite 705, #358
Naperville, IL 60563 USA
Tel: 630-964-0796
Fax: 866-473-9274

Pacific Region

8460 Kass Drive
Buena Park, CA 90621
Tel: 714-228-2510
Fax: 714-228-2511

Eastern Region

100 Corporate Drive
Lebanon, NJ 08833 USA
Tel: 908-236-4121
Fax: 908-236-4146

Asia Pacific

Asia Pacific Headquarters

Parker Hannifin Hong Kong Ltd

8/F, Kin Yip Plaza
9 Cheung Yee Street
HK-Cheung Sha Wan, Hong Kong
Tel: 852 2428 8008
Fax: 852 2425 6896

Australia Headquarters

Parker Hannifin Pty Ltd.

9 Carrington Road
Castle Hill, NSW 2154, Australia
Tel: 612 9634 7777
Fax: 612 9842 5111

China Headquarters

Parker Hannifin Motion & Control (Shanghai) Co., Ltd

280 Yunqiao Road,
Jin Qiao Export Processing Zone
CN-Shanghai 201206, China
Tel: 86 21 5031 2525
Fax: 86 21 5834 3714

Korea Headquarters

Parker Hannifin Korea Ltd

6F Daehwa Plaza
169 Samsung-dong, Gangnam-gu
KR-Seoul, 135-090, Korea
Tel: 82 2 559 0400
Fax: 82 2 556 8187

South Africa

Parker Hannifin Africa Pty Ltd

Parker Place

10 Berne Avenue Aeroport
P.O. Box 1153
ZA-Kempton Park 1620,
Republic of South Africa
Tel: 27 11 961 0700
Fax: 27 11 392 7213



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Parker Hannifin Corporation
Electronic Controls Division
56641 Twin Branch Dr.
Mishawaka, IN, 46545 USA
phone 574 256 6630
fax 574 258 8818