



RS70 Sensors

Catalog MSG33-2356/US



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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

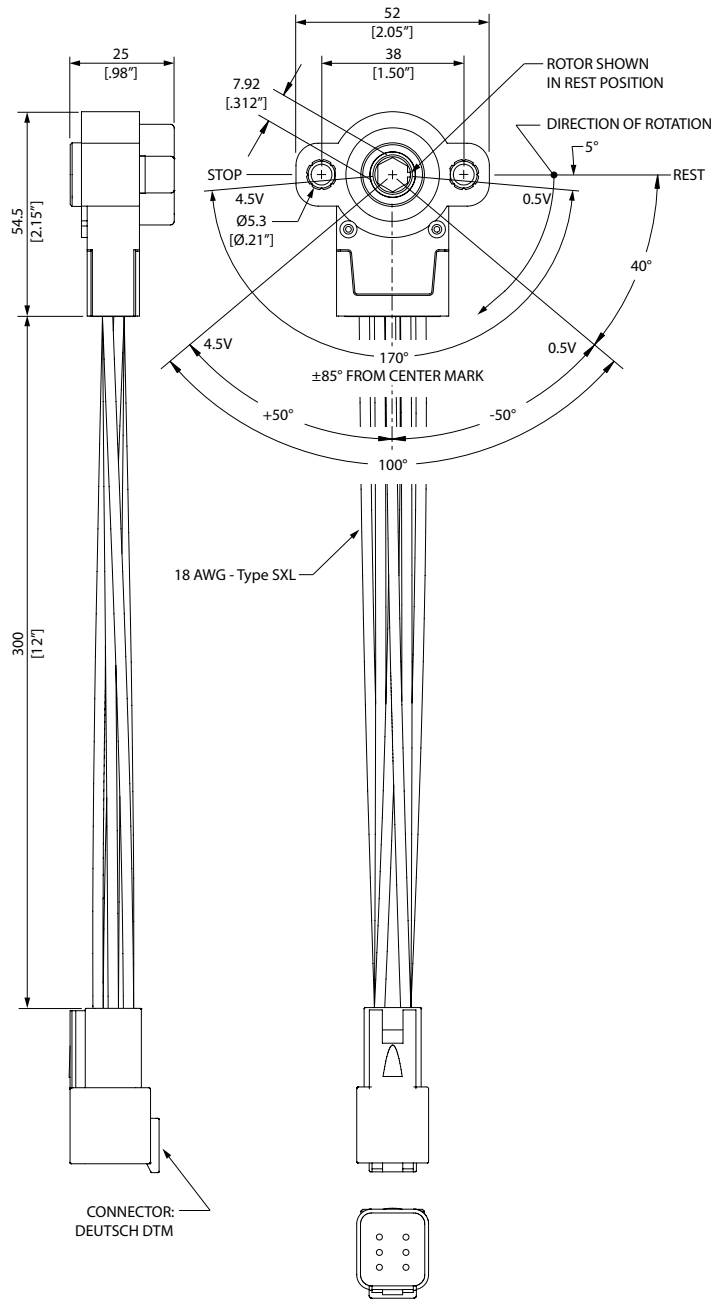
The RS70 has a glass-filled nylon plastic construction for sturdiness and corrosion resistance. The mounting holes are reinforced with brass inserts for added strength. The sensor uses non-contact, Hall-effect technology for trouble free operation. The second output makes this sensor very reliable and 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°)	01707ECD
RS70 (100°)	141453ECD

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**

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This product can expose you to chemicals including CARBON BLACK (AIRBORNE, UNBOUND PARTICLES OF RESPIRABLE SIZE), LEAD AND LEAD COMPOUNDS (PB), SILICA, CRYSTALLINE (AIRBORNE PARTICLES OF RESPIRABLE SIZE) (O2SI) which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov

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