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Electronic Control Systems Sensors

FP4000 Ferrous Proximity Sensor



ENGINEERING YOUR SUCCESS.

Application

The FP4000 sensor belongs to the Parker family of accessories provided to complement electronic control systems. The FP4000 is a ferrous proximity sensor with increased power handling capability for mobile hydraulic applications and will sense ferrous objects. The sensor has twelve inch leads with an attached Deutsch connector. To make the sensor suitable for mobile equipment, we have focused upon properties such as reliability and ease of installation.

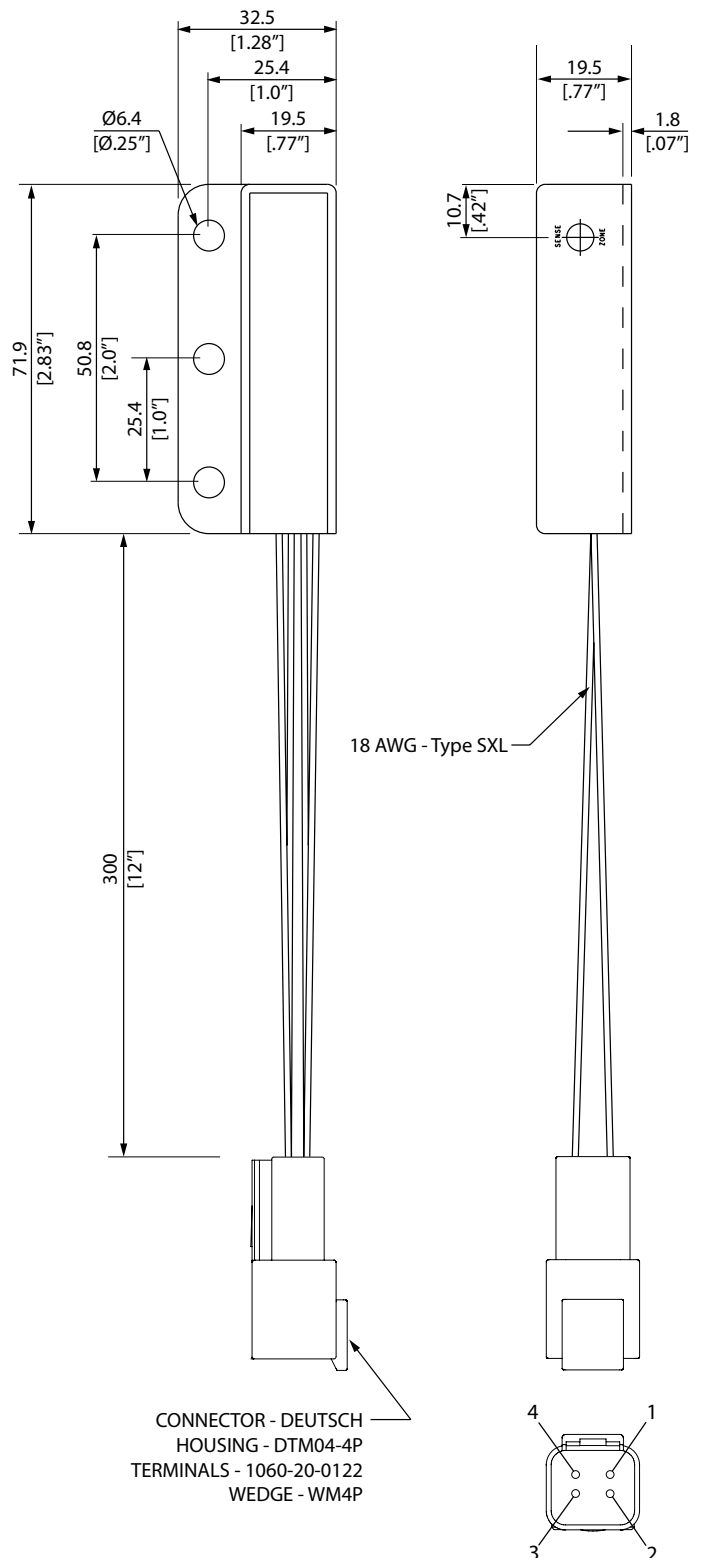
Properties

Reliability

The FP4000 has a glass-filled nylon plastic construction for strength and corrosion resistance. The sensor uses non-contact technology, through the use of an internal reed switch, for trouble free operation. The sensor is very robust and able to withstand rugged applications.

Installation

The FP4000 is well designed for the mobile hydraulics industry. The 4 pin connector is a sealed Deutsch DTM type designed for automotive use. This connector combined with potted electronics gives the sensor excellent protection for exposed outdoor applications. The mounting holes are extra large for easy alignment. These features provide for easy installation and removal, even in field conditions.



Technical data

FP4000 Sensors

General

| | |
|-----------------------------|--------------------|
| Weight | 58 g |
| Temperature range | -40°C to 85°C |
| Voltage supply (Vs) | 12 VDC |
| Operating life | 50 million cycles |
| Airgap "make" (signal high) | Min 6.4 mm [0.25"] |
| Airgap "break" (signal low) | Max 7.2 mm [0.28"] |

Mechanical characteristics

| | |
|-------------|-----------------------------------|
| Switch type | Normally Open/ Normally Closed |
| Connector | Deutsch DTM |

Electrical characteristics

| | |
|------------------------------|------------|
| Contact resistance (initial) | Max 30 mΩ |
| Breakdown voltage | 2000 VAC |
| Switching voltage max | 12 VDC |
| Switching current DC | Max 5 A |
| Bounce time | Max 0.3 ms |

Ordering part number

| | |
|--------|-------|
| FP4000 | 01703 |
|--------|-------|

Environmental protection

Mechanical

| | |
|-----------|---------|
| Shock | 1m drop |
| Vibration | 30 Gs |

Climate

| | |
|---------|--------|
| Sealing | IP6K9K |
|---------|--------|

Chemical environment

| | |
|----------------------|---------------------|
| Liquids (resistance) | standard automotive |
|----------------------|---------------------|



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.
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