

Monitoring Oil and Hydraulic Pressure in Heavy Equipment

Application Note



BACKGROUND:

Heavy equipment vehicles and material handling equipment use pressure sensors to measure oil pressure, hydraulic charge pressure, and hydraulic system pressure. Off road vehicle OEMs (Original Equipment Manufacturers) use pressure sensors to measure the oil pressure in their engines to maximize and ensure efficient operation. Typical pressures range from 150 psi to 200 psi and the sensor must be able to withstand temperatures up to 125 °C [257 °F].

Hydraulic pressure may be measured at the source, better known as the hydraulic charge pressure, and throughout the system. Typical pressure ranges at the source are 700 psi to 800 psi and can range from 4000 psi to 9000 psi within the hydraulic system. The hydraulic pressure provides feedback to the operator and balances the power delivered against the load to be lifted.

PROBLEM:

A variety of pressures ranges and environmental extremes typically require the use of multiple sensor models. Due to the extreme environmental conditions that include heat, dust, humidity, RFI (Radio Frequency Interference), bumps, shocks, wash down, etc. that heavy equipment and material handling equipment encounter, the sensors must be able to withstand extreme environments.

SOLUTION:

The Honeywell MLH Series allows for a large variety of pressure ranges, port and connector configurations using a single compact sensor housing. They provide all wetted materials that are equivalent to or better than 300 series stainless steel and meet IP 65 standards. Sensors are available to handle pressures up to 8,000 psi.



WARNING

PERSONAL INJURY

DO NOT USE these products as safety or emergency stop devices or in any other application where failure of the product could result in personal injury.

Failure to comply with these instructions could result in death or serious injury.

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SUMMARY:

The rugged and highly dependable Honeywell MLH Series pressure sensors are a perfect choice for this type of application. The thru-wall mounting capability, broad range of pressures, along with a variety of pressure ports and connector styles to choose from make this a very versatile product that can be readily adapted to a variety of applications.

WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Contact your local sales office for warranty information. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace without charge those items it finds defective. **The foregoing is Buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose.**

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use.

While we provide application assistance personally, through our literature and the Honeywell web site, it is up to the customer to determine the suitability of the product in the application.

For application assistance, current specifications, or name of the nearest Authorized Distributor, contact a nearby sales office. Or call:

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1-815-235-6847 International

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