Visit our website:
http://www.ifm.com

ifm – close to you!

Position sensors

Sensors for motion control

Industrial image

Safety technology

Process sensors

Industrial communication

Identification systems

Condition monitoring systems

Systems for mobile machines

Connection technology

Accessories

Over 70 locations worldwide - at a glance at www.ifm.com

Mixed Sources
Product group from well-managed forests and other controlled sources
www.fsc.org Cert no. IMO-COC-027827
© 1996 Forest Stewardship Council

WARRANT 5 years von ifm products

ZEBR9717

ifm solutions for hydraulic units

http://www.ifm.com

ifm solutions for hydraulic units

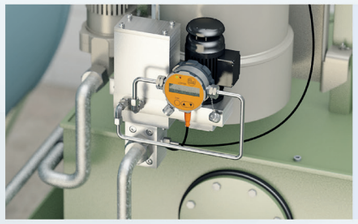
What are the challenges in the hydraulic unit monitoring process?

- Control over particle contamination to prevent damage to valves, actuators and pumps.
- Control over tank water contamination due to steam condensation and process problems.
- Control over pressure, flow and temperature of the pressurized fluid.
- Hydraulic pump condition monitoring.

Which solution does ifm offer?

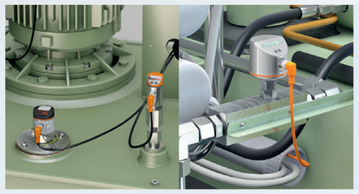
Pump condition monitoring can prevent unexpected breakdowns that lead to production losses. ifm has an extensive line of sensors with varied fittings and appropriate pressure ranges to ensure accurate measurements.

- Differential pressure monitoring on the filter to indicate clogging.
- Monitoring solid particle size and quantity in the oil.
- Monitoring water contamination in the tank
- Monitoring the level in the hydraulic tank.
- Oil temperature monitoring.
- Monitoring vibrations in pumps and motors of the hydraulic system.
- Monitoring the pressure of the hydraulic system.
- Level monitoring to prevent overflow.



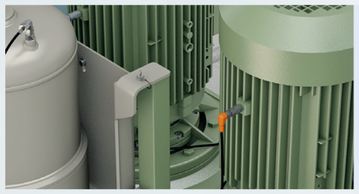
How to monitor oil contamination?

On principle, water is an undesirable element in hydraulic fluids and lubricants. A high water concentration can seriously impair the operation or cause damage. The LDH100 sensor measures relative humidity in the oil with a capacitive measurement element in the range from 0...100%. In addition to relative humidity, the sensor transmits the fluid temperature as an analog signal. The LDP100 optical particle counter monitors the degree of purity or dirt level in hydraulic oils, pursuant to standards ISO4406 and ISO6149-2.



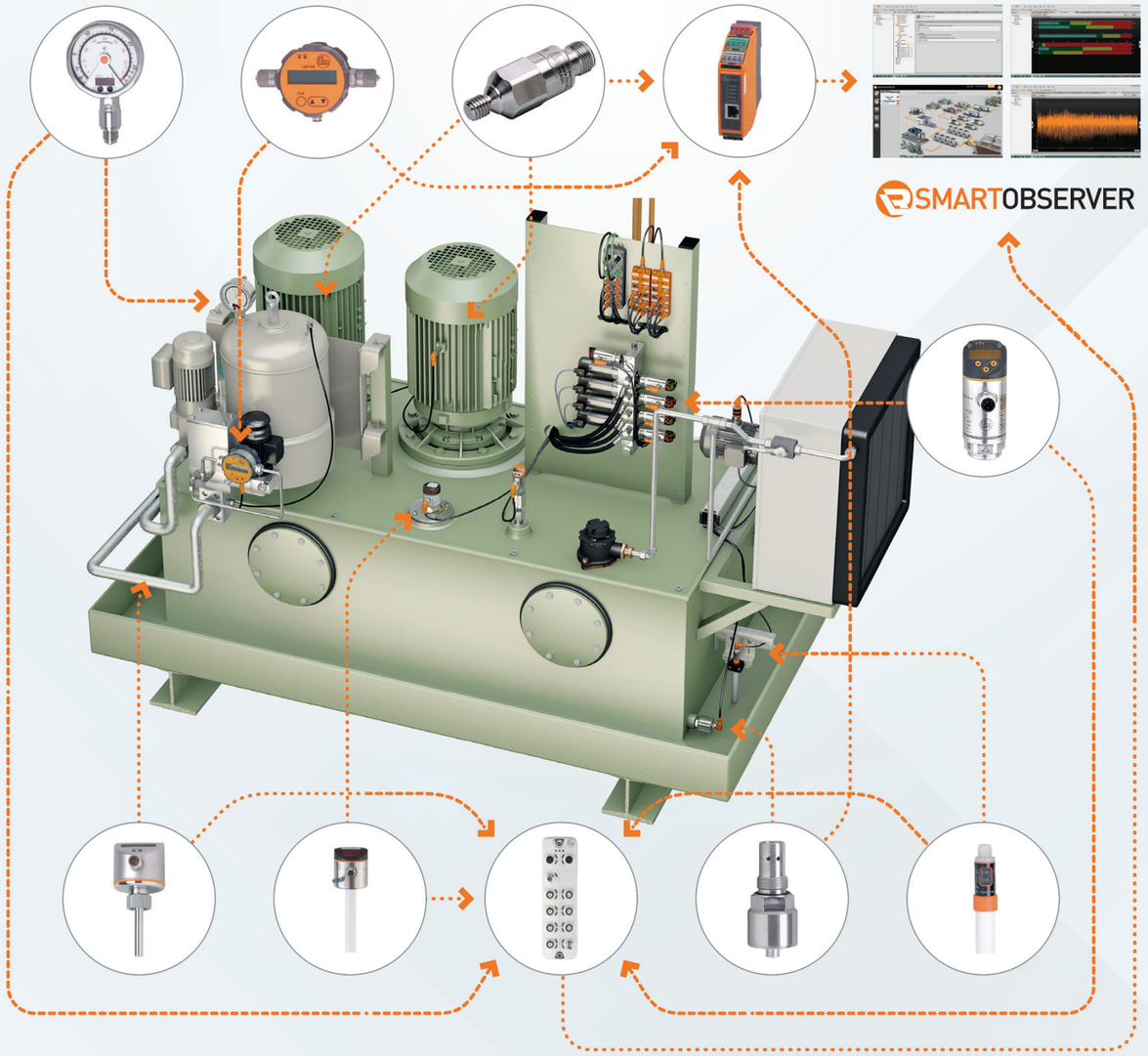
Pressure, flow and temperature control

To ensure full process function, the oil should be at the pressure and temperature required for the system to be engaged. The flow guarantee is able to indicate wear issues in pumps and leaks in piping.



How to monitor the condition of hydraulic pumps?

The VSE electronic vibration unit monitors vibration of the electric drive motor and the hydraulic pump. This system allows for detecting damage to bearings, electrical defects, damages in internal pump components, as well as cavitation and mechanical component wear.



Item	Quantity	Description
VSE002	1	Vibration electronics
VSA001	2	Vibration sensor
LDH100	1	Water monitoring sensor
LDP100	1	Particle monitoring sensor
SI5010	1	Flow monitoring sensor
LT3023	1	Level monitoring sensor
PN7092	2	Hydraulic system pressure sensor
PG2455	1	Pressure sensor to identify clogged filter
LI2142	1	Overflow detection sensor
AL1123	1	IO-Link input module
QLS020	2	LR SmartObserver software
QW0501	2	Annual license fee
QDC001	2	Configuration and commissioning services