



Oil differential pressure monitoring of semi-hermetic piston refrigerant compressors



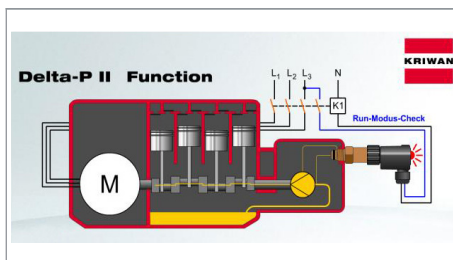
Semi-hermetic piston refrigerant compressors are often equipped with oil pumps for oil lubrication. To monitor sufficient oil supply pressure, these compressors are equipped with an oil differential pressure switch.



DeltaP II

Product Description

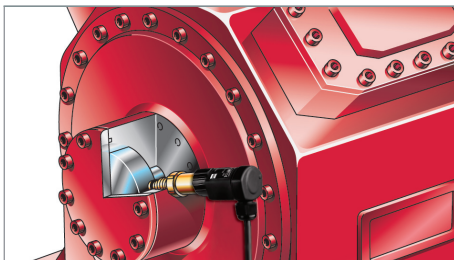
The devices of the DELTA-P product family are electronic differential pressure switches. They offer protection against damage that could result from a low oil supply pressure for pump-lubricated piston compressors. A lack of lubrication can cause serious damage to the sliding surface and bearing surfaces. The cause of too low oil pressure could be, for instance, the failure of the oil feed pump or foaming refrigerator oil.



Oil differential pressure monitoring

Functional Principle

The differential pressure switch consists of a screw-in part (sensor) and an electronic evaluation unit, which can be separated physically. The screw-in part is screwed directly into the pump housing at the bearing cap of the compressor and is connected through channels with the suction and high-pressure sides of the oil pump in the cover. There a differential pressure is created. If this is lower than the permissible value for longer than the delay time, the safety chain is interrupted permanently. Also shorter periods of lack of oil pressure lead, after a corresponding extended delay, to shut down.



Installed DeltaP II

Advantages

- Removal or replacement of the switch with closed refrigerant circuit possible
- Directly screwed in the pumping housing makes other additional, breakable, pipe connections unnecessary
- Optical status information
- Installation control
- Potential-free changeover contact
- UL and CE conform
- Low leak rate
- Quick and easy assembly
- Self-monitoring of the device function