

Oil Differential Pressure Sensor - ICG571C series

油压差传感器 - ICG571C 系列



APPLICATION:

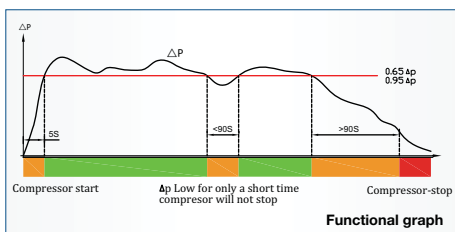
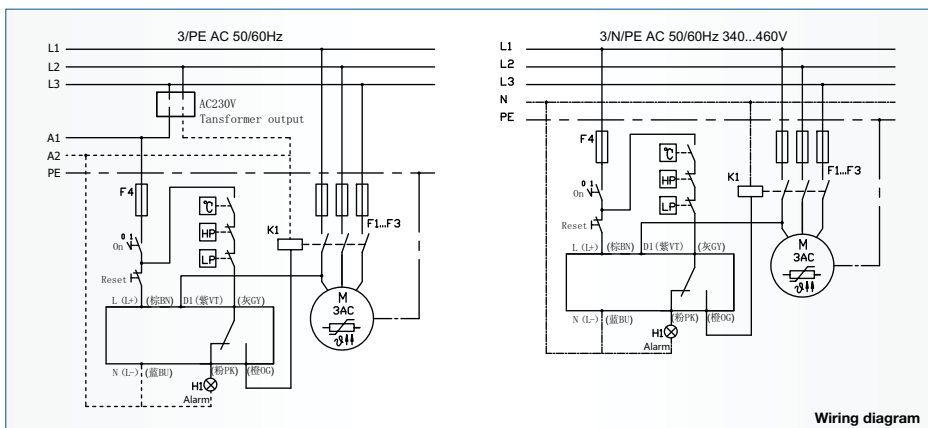
Oil differential pressure sensor is designed to detect and ensure a sufficient oil quantity in compressors. The evaluation unit can be detached separately.

FUNCTIONAL DESCRIPTION:

* The ICG571C oil differential pressure sensor is composed of a screw-in unit and an evaluation unit. The screw-in unit is directly screwed into the pump shell of the compressor, and its internal channel is connected with the compressor oil system.

* Once the supply voltage is turned on, the relay is turned on after 3 sec. delay, then LED turns orange; when the evaluation unit is not connected with the screw-in unit, the relay is turned off and red LED light flashes. When the compressor operation signal D1 is on (see the wiring diagram), the pressure differential starts to be monitored.

* When the oil pressure differential is OK, the LED turns green; when the oil pressure differential is too low, the LED turns orange, and starts timing. If the oil pressure differential is lower than 0.65bar (the fixed value of the screw-in unit) for 90sec, the red LED turns on and the relay will be turned off and self-locked, then the compressor will be stopped to prevent damage.



LED Flash Code:

- * **Red flashing** (10Hz)
Power on when not screwed properly into screw-in part
- * **Orange flashing** (10Hz)
When it is disconnected from the screw-in part during operation, the alarm is output and locked after flashing for 5 sec.
- * **Red light**
Alarm, lock-off, relay OFF
- * **Orange light**
No differential pressure available, relay ON
- * **Green light**
Differential pressure OK, relay ON

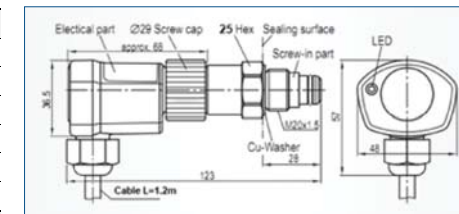
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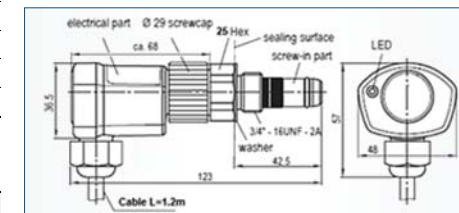
SPECIFICATIONS FOR SCREW-IN UNIT:

Screw-in unit 02D556	Description
Medium temp.	-30°C ... +90°C
Differential pressure	0.65bar ± 0.15bar
Operating pressure	120bar
Housing material	Stainless steel, brass
Connection thread	M20 x 1.5mm
Weight	Approx. 130g
Screw-in unit 02D444	Description
Medium temp.	-30°C ... +90°C
Differential pressure	0.95bar ± 0.15bar
Operating pressure	30bar
Housing material	Brass
Connection thread	3/4"-16UNF-2A
Weight	Approx. 100g

DIMENSIONS FOR SCREW-IN UNIT 02D556, mm



DIMENSIONS FOR SCREW-IN UNIT 02D444, mm



SPECIFICATIONS FOR EVALUATION UNIT:

Evaluation unit	Description
Supply voltage	AC 50/60Hz 230V ± 15%
Operation recognition (D1)	L-potential at connection D1
Ambient / storage temp.	-30°C ... +70°C
Delay	5s ± 2s relay off (not screwed into screw-in part) 90s ± 15s relay off (differential pressure missing) Approx. 3s reset by interrupting the supply voltage
Output relay	Max. AC 240V, 2.5A, C300 Min. AC/DC >24V, >20mA
Mechanical service life	Approx. 1 million switching cycles
Protection class	IP54 (EN 60529) * IP65 protection class can be customized
Connection wire	6 x AWG20#, L=1.2m, color coded
Mounting	Union nut
Housing material	PA66 / PA6
Weight	Approx. 160g

INSTALLATION INSTRUCTIONS:

- * The maximum torque of the screw-in unit is about 75Nm and has to be ensured by a ring spanner or a socket key. After installation, check the seal.
- * Insert the evaluation unit in the screw-in unit and screw tight by hand with the coupling ring (torque about 5Nm). Make sure that the cable outlet points down. The electrical connection needs to be carried out according to the proposal in the wiring diagram.