OUT571C 电子油压差传感器 Oil differential Pressure sensor

OUT571C电子油压差传感器由测压机械头和压差控制器组成，其压差控制器可以单独拆卸而不影响系统的密封性。

油压差传感器的测压机械头被直接旋入压缩机的泵壳里，其内部的通道与机内的油路相连通。

上电后继电器在 3 秒延迟后吸合，LED 显示为橙色；当油压差传感器未与测压机械头联接时，继电器不吸合并且红色 LED 将闪烁。当 D1 端口接入 L 电位时（见接线图），控制器开始对压差进行监测。

当油压差处于正常范围时，LED 显示绿色；当油压差过低时，LED 变为橙色，并启动计时功能。若油压差在 90 秒内始终低于 0.65bar（该值为测压机械头的固定设定），LED 将变为红色，继电器断开并进入自锁状态，从而触发压缩机的保护性停机

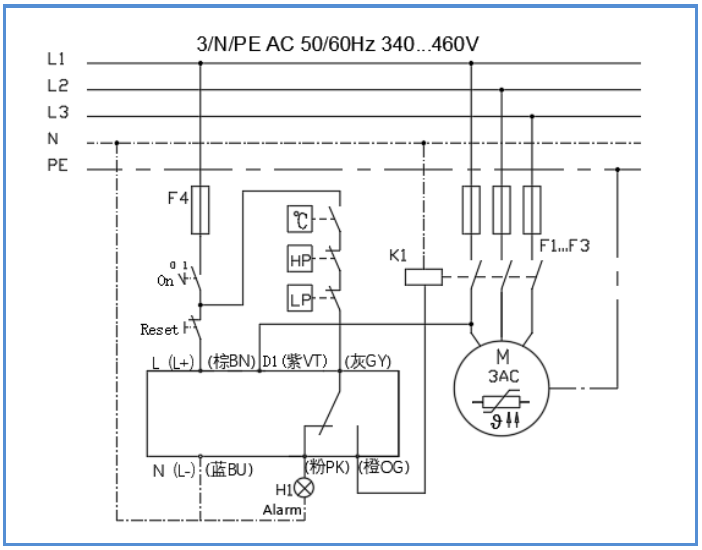
OUT571C oil differential pressure sensor is composed of a **Screw-in unit** and an **Evaluation unit.** The Evaluation unit can be detached and not to affect its seal-ability.

The **Screw-in unit** is directly screwed into the pump shell of the compressor, and its internal channel is connected with the oil circuit in the machine.

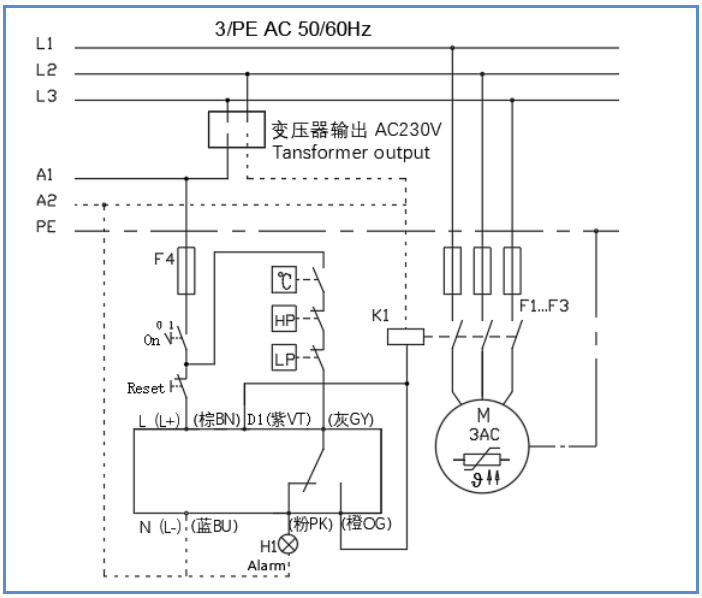
After power-on, the relay will close after a 3-second delay, and the LED will display orange. When the oil differential pressure sensor is not connected to the pressure measuring mechanical head, the relay will not close and the red LED will flash. When the D1 port is connected to the L potential (see the wiring diagram), the controller starts to monitor the differential pressure.

When the oil pressure difference is within the normal range, the LED shows green. When the oil pressure difference is too low, the LED turns orange and the timing function is activated. If the oil pressure difference remains below 0.65 bar (this value is a fixed setting of Screw-in unit part) within 90 seconds, the LED will turn red, the relay will disconnect and enter the self-locking state, thereby triggering the protective shutdown of the compressor.

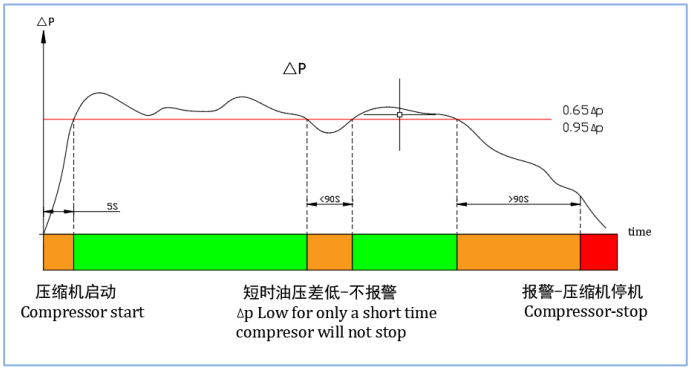
接线原理图 1　Wiring diagram1



接线原理图 2　Wiring diagram2



电子油压差动作时序 Functional Graph



LED 灯颜色代码 Flash code

红色闪烁 Red flashing（10 Hz）：

未连接测压机械头.
Not screwed into Screw-in part

橙色闪烁 Orange flashing（10 Hz）：

运行中压差控制器与测压机械头脱开时，闪烁 5 秒后报警输出并锁定.
When it is disconnected from the Screw-in part during operation, the alarm is output and locked after flashing for 5 seconds.

红色Red light：
压差故障并锁定，继电器断开，
Alarm, lock-off, relay OFF

橙色 Orange light：
油压差低，继电器吸合，
No differential pressure available, relay ON

绿色 Green light：
油压差正常. 继电器吸合，
Differential pressure OK, relay ON

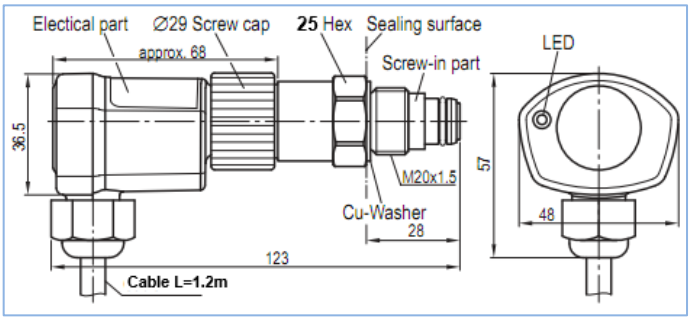
技术参数 Technical specifications

测压机械头 Screw-in unit（02D556）	15G12 556 01
介质温度 Medium temperature	-30...90℃
压差 Differential pressure	0.65bar±0.15bar
工作压力 Operating pressure	120bar
材质 Housing material	Stainless steel +Brass
连接螺纹 Connecting thread	M20×1.5mm
重量 Weight	Approx. 130g
测压机械头 Screw-in unit（02D444）	16G12 444 01
介质温度 Medium temperature	-30...90℃
压差 Differential pressure	0.95bar±0.15bar
工作压力 Operating pressure	30bar
材质 Housing material	Brass
连接螺纹 Connecting thread	3/4"-16UNF-2A
重量 Weight	Approx. 100g
压差控制器 Evaluation unit 供电电压 Supply voltage	AC 50/60Hz 230V ±15%
启动信号(D1)- 注 1 Operating recognition(D1)- Note 1	AC 50/60Hz 230V ±15% L-potential at connection D1
环境温度 Ambient temperature	-30...70℃
延时 Delay： -继电器断开（未连接机械头时） Relay off(Not screwed into Screw-in part) -继电器断开（压差故障时） Relay off(diff.-pressure missing) -断电复位 Reset by interrupting the supply voltage	5s±2s 90s±15s (时间积分 time integration) 约 3s
输出继电器 Output relay	Max. AC 240V,2.5A,C300 Min. AC/DC＞24V, ＞20mA
机械寿命 Mechanical service life	约 1 百万次(开关循环) approx. 1 million switching cycles
保护等级-注 2 Protection class (EN 60529)- Note 2	IP54
连接线 Connection type L=1. 2m（颜色编码 colour-coded）	6 芯电缆-AWG20# Cable 6×AWG20#, L=1.2m
材料 Housing material	PA66/PA6
安装 Mounting	螺旋连接 Union nut
重量 Weight	Approx. 160g
电源供应 Supply Voltage AC 230V ±15%	订货号 Order NO. 15G12 571 C01

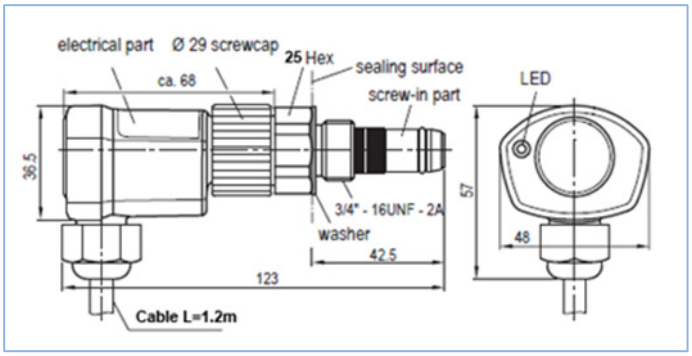
注 1：启动信号 D1 的电位与工作电源 L 同相。
Note 1: The potential is in phase with the supply L.

注 2：可定制进行防水灌封，达到 IP65 防护等级。
Note 2: IP65 protection class can be customized.

尺寸示意图 1 Dimension 1 in mm



尺寸示意图 2 Dimension 2 in mm



连接说明 Installation instructions

由活动板手或套筒板手专用工具操作，其最大扭矩为75Nm。安装后，必须检查其密封是否完好。须遵守制冷系统运行规则！
压差控制器与测压部件连接时，手动拧紧旋转环（不得超过5Nm的扭矩）。
注意电缆口的位置：输出口朝下。根据推荐的接线图连接。
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 mounting, check the seal. Follow the rules when working on refrigeration systems!
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 proposal in the wiring diagram.