

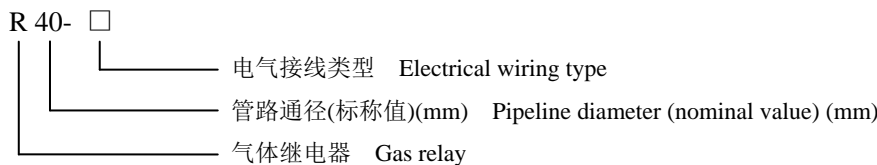
R40系列变压器用气体继电器

R40 series transformer gas relay

一、产品简介与型号说明 Product introduction and model description

R40 系列型气体继电器, 主要用于保护各种类型的油浸式全密封变压器。变压器在运行时, 由于内部故障产生气体, 气体聚集于气体继电器的集气室内, 当气体的容积达到一定程度量时, 触发报警或跳闸触点, 输出报警信号或跳闸信号, 从而达到保护变压器的目的。

R40 series gas relay is mainly used to protect various types of oil-immersed hermetically sealed transformer. When the transformer is in operation, gas is generated due to internal fault and gathered in the gas collecting chamber of the gas relay. When the volume of gas reaches a certain degree, alarm or tripping contact will be triggered to output alarm signal or tripping signal, so as to protect the transformer.



标注实例: R40 表示报警信号气体容积值为: $170\text{ml} \pm 15\text{ml}$, 跳闸信号气体值为: $230\text{ml} \pm 15\text{ml}$ (特殊的报警信号与跳闸信号油位值需要在订单上标注出来)。

Example annotation: R40 indicates an alarm signal gas volume value of $170\text{ml} \pm 15\text{ml}$, and a trip signal gas value of $230\text{ml} \pm 15\text{ml}$ (special alarm and trip signal oil level values need to be indicated on the order).

使用范围: (a). 安装位置: 安装于箱盖顶部。(b). 环境要求: $-30^{\circ}\text{C} \sim +70^{\circ}\text{C}$ (可根据用户需求定制最高可支持 $-45^{\circ}\text{C} \sim +70^{\circ}\text{C}$); 工作环境: $-30^{\circ}\text{C} \sim +115^{\circ}\text{C}$ (可根据用户需求定制最高可支持 $-45^{\circ}\text{C} \sim +115^{\circ}\text{C}$);

(c). 相对湿度: $+20^{\circ}\text{C}$ 时, 不大于 95%; (d).防护等级: IP55 (可根据用户需求定制) 适用范围: 海拔 0~4000m; (e). 绝缘性能: 常开接点 2500V, 500M Ω , 常闭接点或单刀双掷接点: 相间 1000V, 500M Ω , 对地 2500V, 1000M Ω ; (f). 工频耐压: 常开接点 2000V, 1min, 常闭接点或单刀双掷接点: 相间 1000V, 1min, 对地 2000V, 1min.

Scope of use: (a). Mounting position: Mounted on the top. (b). Environmental requirements: $-30^{\circ}\text{C} \sim +70^{\circ}\text{C}$ (can be customized according to user needs to support up to -45°C to $+70^{\circ}\text{C}$); working environment: $-30^{\circ}\text{C} \sim +115^{\circ}\text{C}$ (customizable according to user needs, can support up to $-45^{\circ}\text{C} \sim +115^{\circ}\text{C}$); (c). Relative humidity: no more than 95% at $+20^{\circ}\text{C}$; (d). Protection level: IP55 (Customizable according to user requirements). Scope of application: Altitude 0~4000m.; (e).

Insulation performance: normally open contact 2500V, 500M Ω , normally closed contact or single pole double throw contact: phase to phase 1000V, 500M Ω , ground 2500V, 1000M Ω ; (f) Power frequency withstand voltage: normally open contact 2000V, 1min, normally closed contact or single pole double throw contact: phase to phase 1000V, 1min, ground 2000V, 1min.

信号开关基本参数 Basic Parameters of Signal Switches

电源种类 Power type	电压(V) Voltage	电流 A	
		电阻负载 Resistive load	感性负载 Inductive load
AC	220V	1	1 ($\cos \phi \geq 0.6$)
DC		0.5	$T \leq 5\text{ms}$

二、安装尺寸图: Drawing

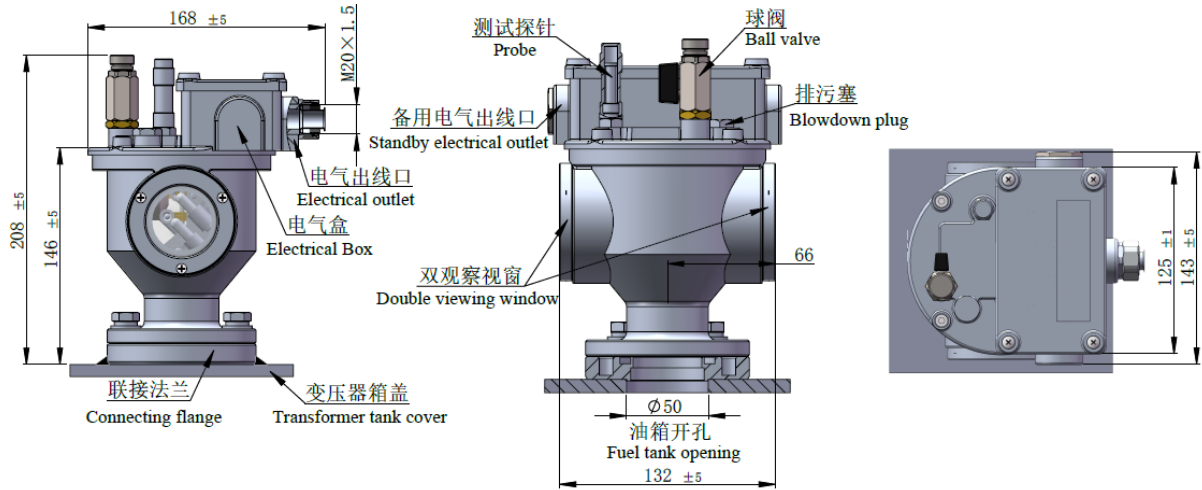
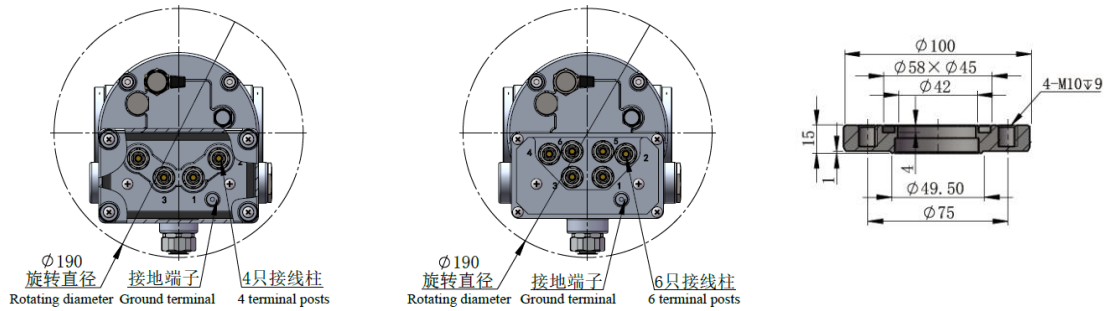


图1 R40 气体继电器外形尺寸图

Figure 1: Dimensions of R40 Gas Relay



R40 气体继电器-4 柱端子图

R40 gas relay -4-post terminal diagram

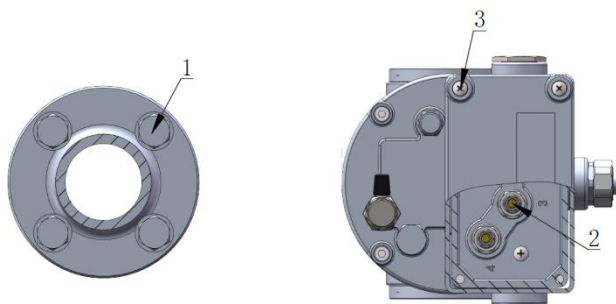
R40 气体继电器-6 柱端子图

R40 gas relay -6-post terminal diagram

本产品提供多种颜色选择, 具体描述如下:

The product provides a variety of color options, specifically described as follows:

色卡编号 Color card No	颜色 Color	可选性 Optionality of choice
RAL7038	玛瑙灰 Agate grey	默认 (Default)
RAL7042	交通灰 A Traffic grey A	可选 (Optional)
RAL7035	浅灰色 Light grey	可选 (Optional)



扭矩参考表

Torque Reference Table

序号 Number	装配位置 Assembly position	螺纹规格 Thread specification	推荐扭矩 Recommended torque	装配工具规格 Assembly tool specification	备注 Notes
1	法兰安装孔 Flange installation hole	M10 螺栓 bolt	18~22Nm		17mm
2	接线端子 Connecting terminal	M5	4~5Nm		8mm 建议手动安装 Suggest manual installation
3	接线盒盖 Terminal box cover	M5	4~5Nm		PH2 建议手动安装 Suggest manual installation

三、电气接线图: Electrical wiring diagram

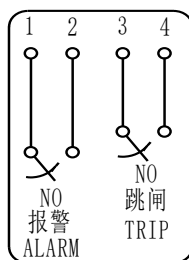
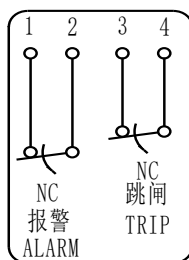
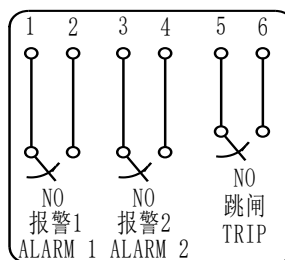
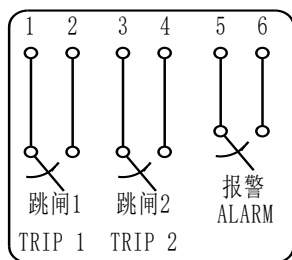
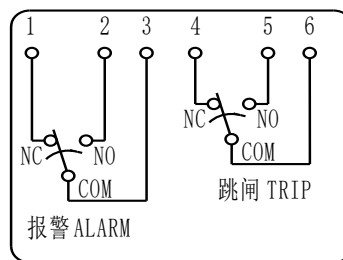

 R40-A 电气接线图
 R40-A Electrical Wiring Diagram

 R40-B 电气接线图
 R40-B Electrical Wiring Diagram

 R40-C 电气接线图
 R40-C Electrical Wiring Diagram

 R40-D 电气接线图
 R40-D Electrical Wiring Diagram

 R40-E 电气接线图
 R40-E Electrical Wiring Diagram

图 2 R40 气体继电器电气接线图
Figure 2 Electrical wiring diagram of R40 gas relay