

# QNJ系列气囊破裂继电器

## QNJ series airbag rupture relay

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

QNJ 气囊破裂继电器, 设计用于装有胶囊储油柜的有载分接开关、电抗器、油浸式电力变压器。该继电器安装在油枕上侧的法兰管上, 或可安装在 L 形法兰管上。变压器在运行前, 气囊破裂继电器内部的气体随着胶囊外侧的气体一起被排尽; 当胶囊外侧有气体时, 当胶囊有损伤漏油漏气, 气体会往胶囊的上端迁移进入继电器内部来置换处于继电器内部的绝缘油, 当继电器内部的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。

QNJ airbag rupture relay is designed for on load tap changers, reactors, and oil immersed power transformers equipped with capsule oil storage tanks. The relay is installed on the flange pipe on the upper side of the oil pillow or can be installed on an L-shaped flange pipe. Before the transformer operates, the gas inside the airbag rupture relay is exhausted along with the gas outside the capsule; When there is gas on the outside of the capsule, if the capsule is damaged and leaks oil or gas, the gas will migrate to the upper end of the capsule and enter the interior of the relay to replace the insulating oil inside the relay. When the volume of gas inside the relay reaches a certain level, an alarm or trip contact will be triggered to output an alarm signal or trip signal, thus achieving the purpose of protecting the transformer.

QNJ- □  
 □ 电气接线类型 Electrical wiring type(A、B、C……G)  
 □ 气囊破裂继电器 Airbag rupture relay

**标注实例:** QNJ 表示报警信号气体容积值为: 400mL ± 50mL (特殊的报警信号气体容积值需要在订单上标注出来)。

Example of labeling: QNJ indicates that the alarm signal gas volume value is 400mL ± 50mL (special alarm signal gas volume values need to be marked 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°C~+70°C (可根据用户需求定制最高可支持 -45°C~+70°C); 工作环境: -30°C~+115°C (可根据用户需求定制最高可支持 -45°C~+115°C);

(c). 相对湿度: +20°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, 500MΩ, 常闭接点或单刀双掷接点: 相间 1000V, 500MΩ, 对地 2500V, 1000MΩ; (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 °C~ +70 °C(can be customized according to user needs to support up to -45 °C to +70 °C); working environment: -30 °C~ +115 °C(customizable according to user needs, can support up to -45 °C~+115 °C);(c). Relative humidity: no more than 95% at +20 °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 ≤ 5ms

二、安装尺寸图: Drawing

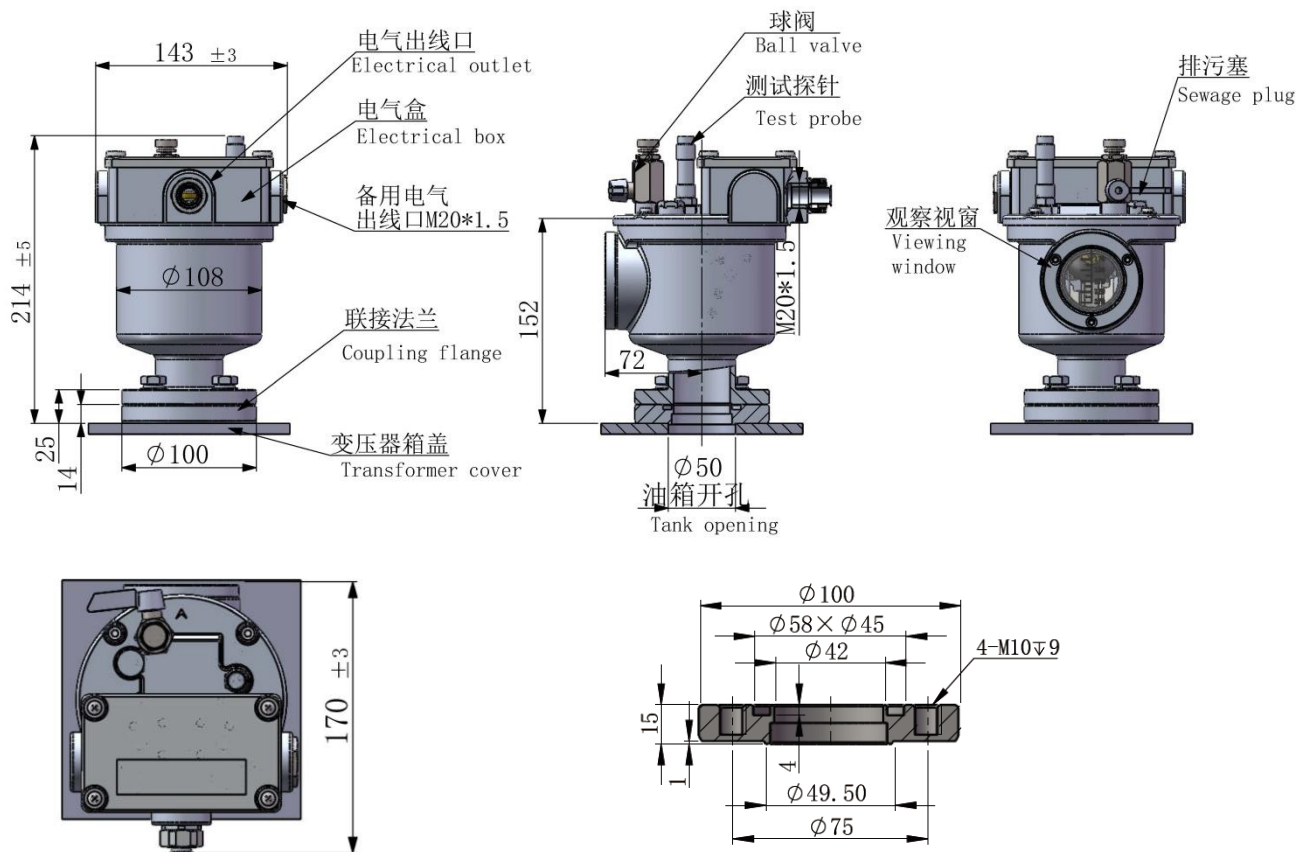
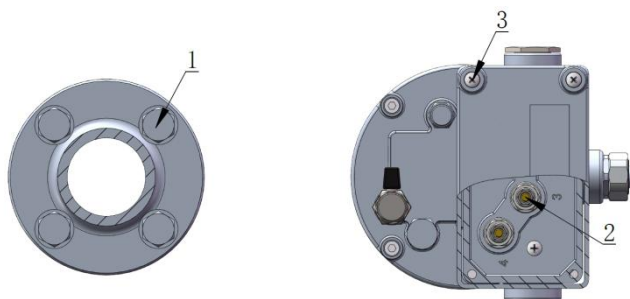


图 1 QNJ 气囊破裂继电器外形尺寸图

Figure 1: QNJ airbag rupture relay external dimension



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

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)

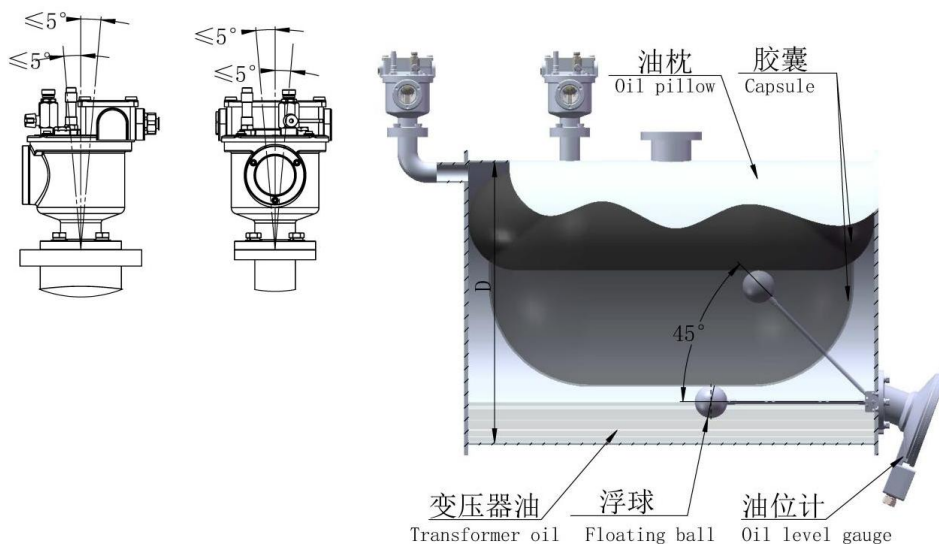


图 2 QNJ 气囊破裂继电器现场安装示意图

Figure 2 Installation diagram of QNJ airbag rupture relay on site drawing

### 三、电气接线图: Electrical wiring diagram

