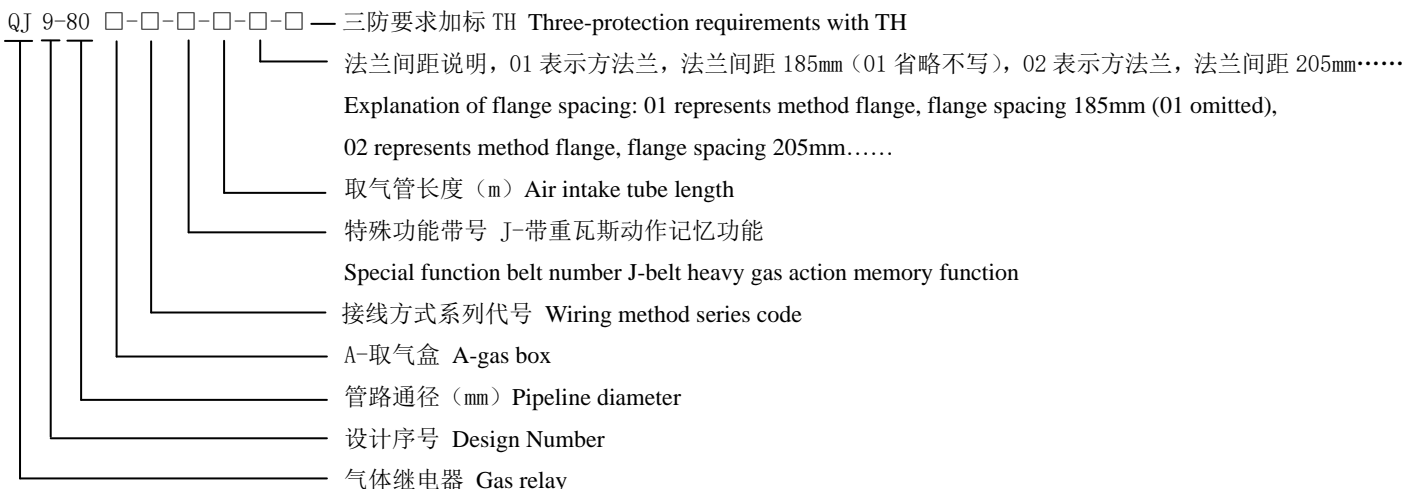


QJ9-50、80 双浮球系列气体继电器

QJ9-50、80 Double Float Ball Series Gas Relay

1. 型号说明 Model Description



QJ9-50、QJ9-80 系列气体继电器用于 110KV 及以上油浸式变压器, 内部采用双浮球结构, 具有轻瓦斯、重瓦斯、缺油三种信号输出, 性能更加安全可靠, 深受广大用户欢迎。

QJ9-50 and QJ9-80 series gas relays are used for oil immersed transformers of 110KV and above. Double-floating ball structure is adopted inside the relay, with three signal outputs of light gas, heavy gas and oil shortage, providing safer and more reliable performance, which is popular among users.

使用范围: (a). 安装方式: 继电器管路轴线应与变压器箱盖平行, 允许通往储油柜的一端稍高, 但其轴线与水平面的倾斜度不超过 4%; (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 $-45^{\circ}\text{C}\sim+70^{\circ}\text{C}$); 工作环境要求: $-30^{\circ}\text{C}\sim+115^{\circ}\text{C}$ (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). 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; (f). 绝缘性能: 常开接点 2500V, 1000M Ω , 常闭接点或单刀双掷接点: 相间 1000V, 500M Ω , 对地 2500V, 1000M Ω 。

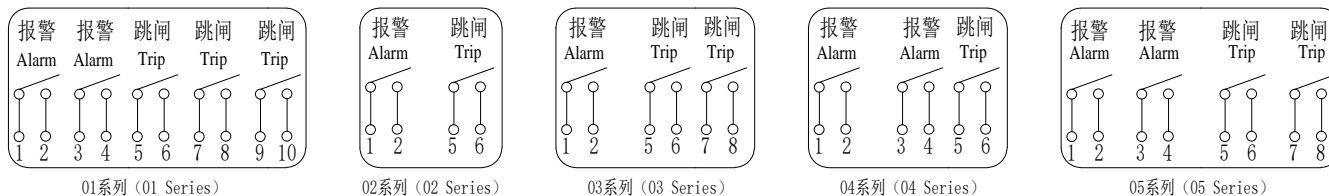
标注实例: QJ9-80A-08-4 TH 表示第 9 次设计的管路通径为 $\Phi 80\text{mm}$, 08 系列 (1 轻 2 重 1 缺油), 带导气盒, 导气管长度为 4m 有三防功能的气体继电器。

Scope of use: (a) Installation method: The axis of the relay pipeline should be parallel to the transformer box cover, allowing for a slightly higher end leading to the oil storage tank, but the inclination of its axis with the horizontal plane should not exceed 4%; (b) Environmental requirements: $-30^{\circ}\text{C}\sim+70^{\circ}\text{C}$ (customizable to $-45^{\circ}\text{C}\sim+70^{\circ}\text{C}$ according to user requirements); Working environment requirements: $-30^{\circ}\text{C}\sim+115^{\circ}\text{C}$ (customizable according to user requirements, the maximum temperature can be $-45^{\circ}\text{C}\sim+115^{\circ}\text{C}$); (c) Relative humidity: not exceeding 95% at $+20^{\circ}\text{C}$; (d) Protection level: IP55 (Customizable according to user requirements). Scope of application: Altitude 0~4000m.; (e) 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; (f) Insulation performance: normally open contact 2500V, 1000M Ω , normally closed contact or single pole double throw contact: phase to phase 1000V, 500M Ω , ground 2500V, 1000M Ω 。

Example annotation: QJ9-80A-08-4 TH indicates that the pipeline diameter for the 9th design is $\Phi 80\text{mm}$, with the 08 series (1 light, 2 heavy, and 1 oil deficient), equipped with an air guide box and a gas relay with a gas guide tube length of 4m and three proof functions.

2. 信号开关接线图及电气参数 Signal switch wiring diagram and electrical parameters

2.1 电气接线图 Electrical wiring diagram



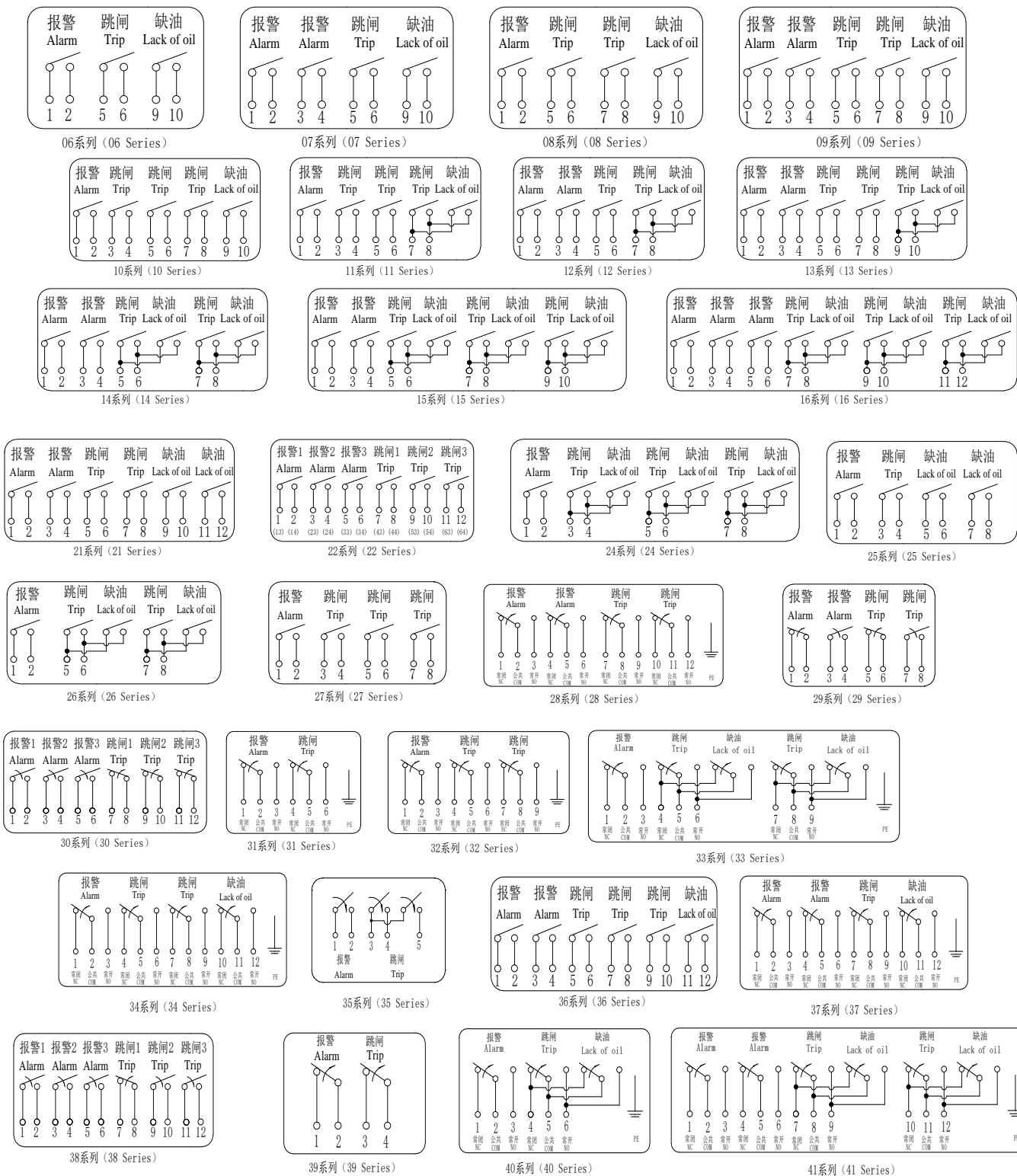
01系列 (01 Series)

02系列 (02 Series)

03系列 (03 Series)

04系列 (04 Series)

05系列 (05 Series)



2.2 接线端子示意图、信号开关接点容量

Schematic diagram of wiring terminals and contact capacity of signal switches



电源种类 Type of power supply	电压(V) Voltage	电流 Electric current A	
		电阻负载 Resistive load	感性负载 Inductive
AC	220V	2	0.3 功率因素 Power Factor $\cos\phi \leq 0.6$
DC		1	0.3 时间常数 Time constant $S \leq 5 \times 10^{-3}s$

3. 外形尺寸 External dimensions

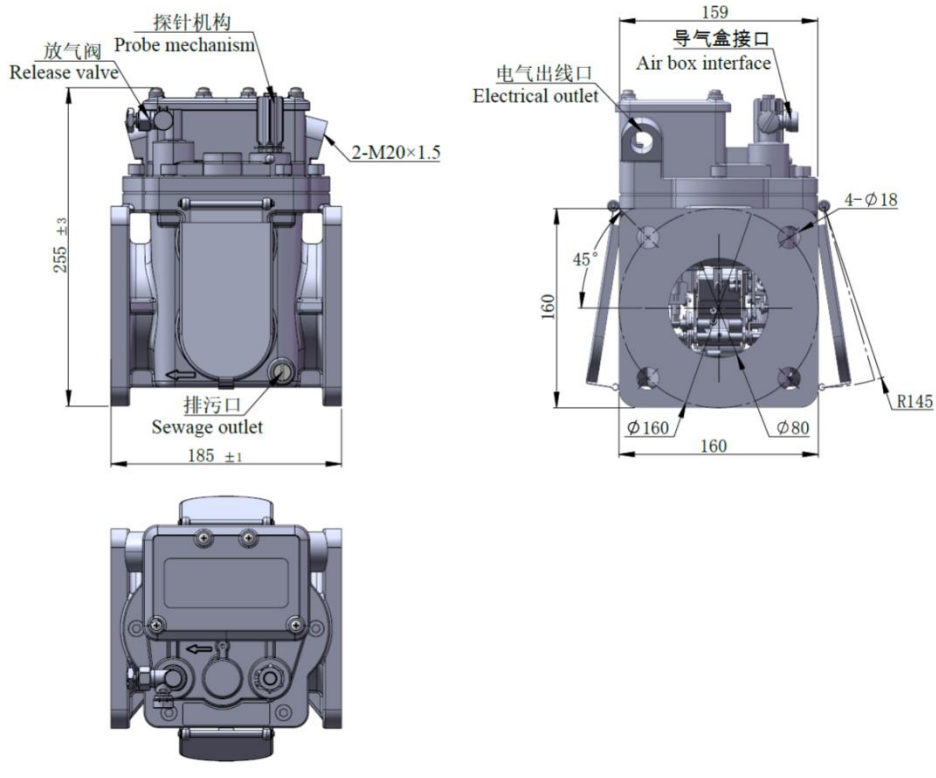


图 3.1 QJ9-80TH 气体继电器（方法兰）外形尺寸

Figure 3.1 Dimensions of QJ9-80TH Gas Relay (with square flange)

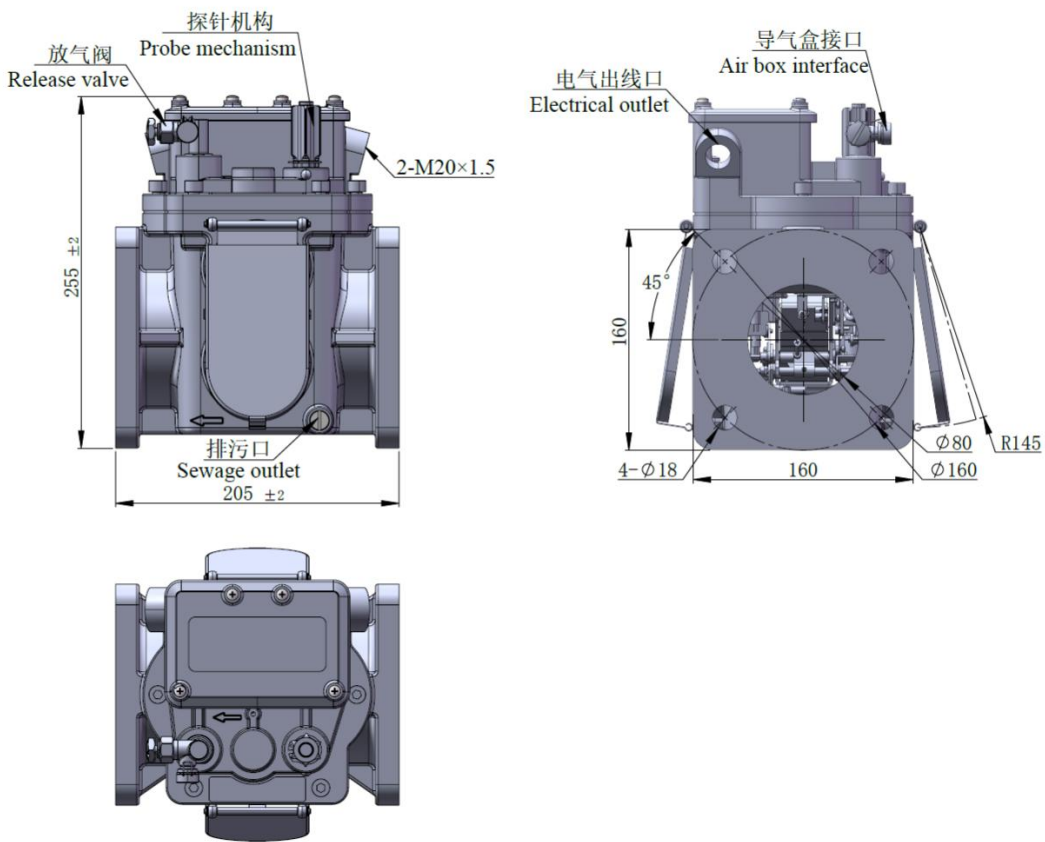


图 3.2 QJ9-80TH-02 气体继电器（方法兰）外形尺寸

Figure 3.2 Dimensions of QJ9-80TH-02 Gas Relay (with square flange)

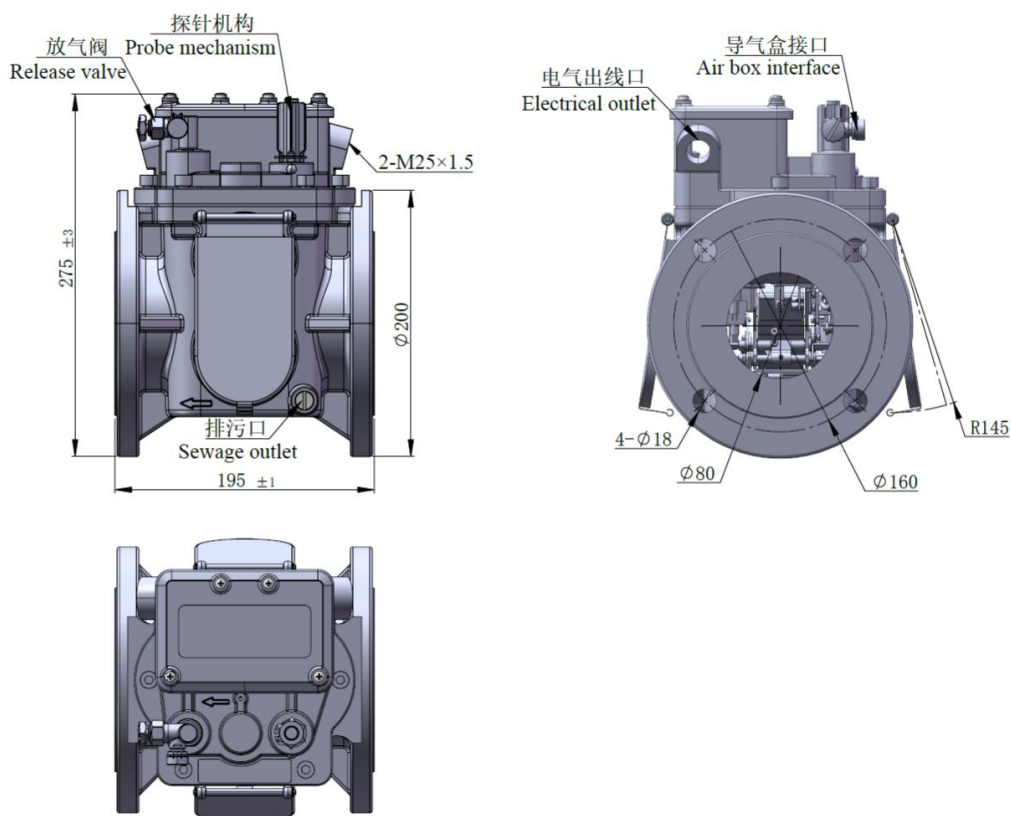


图 3.3 QJ9-80TH-03 气体继电器（圆法兰）外形尺寸

Figure 3.3 Dimensions of QJ9-80TH-03 Gas Relay (with Circular Flange)

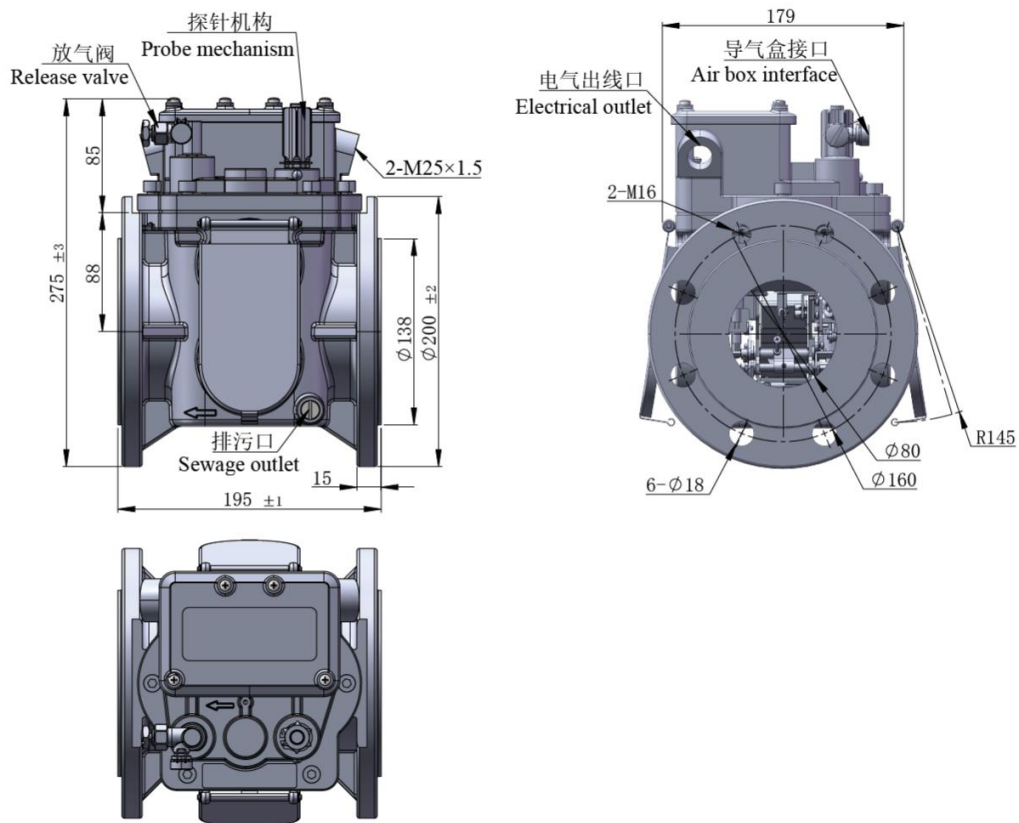


图 3.4 QJ9-80TH-04 气体继电器（圆法兰 8 孔）外形尺寸

Figure 3.4 Dimensions of QJ9-80TH-04 Gas Relay (with Circular Flange, 8 Holes)

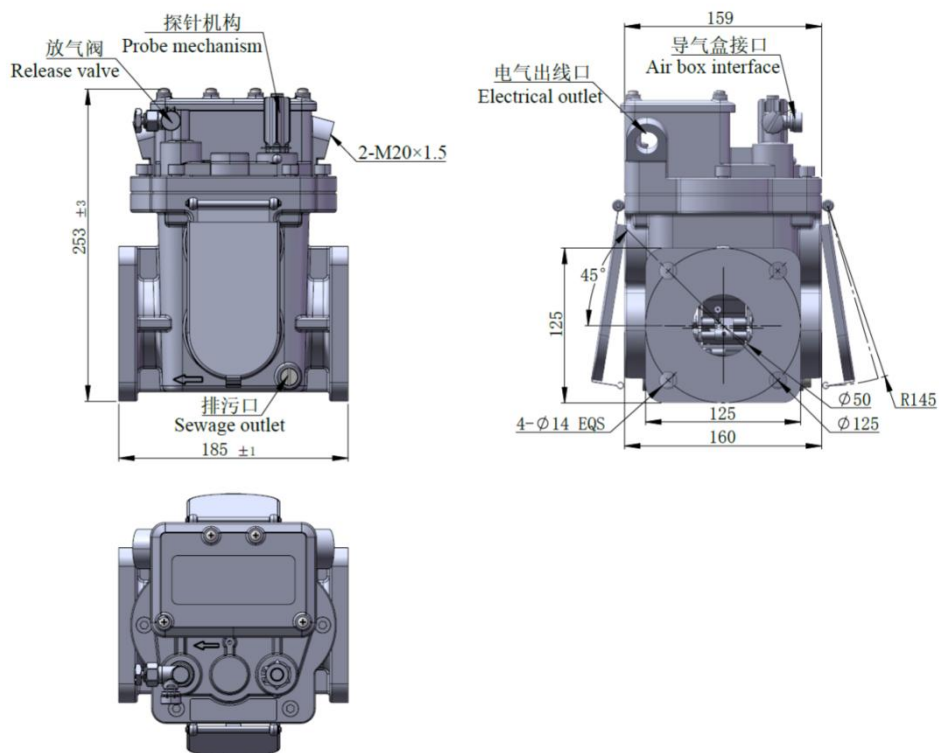
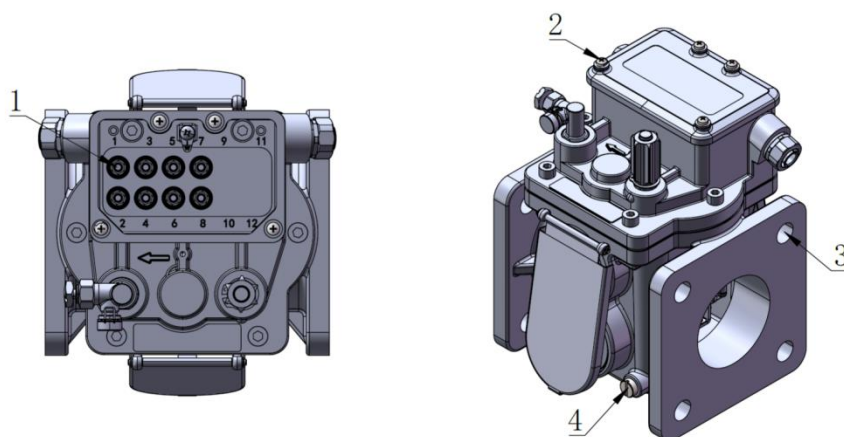





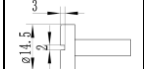


图 3.5 QJ9-50TH 气体继电器外形尺寸

Figure 3.5 Dimensions of QJ9-50TH Gas Relay



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 specifications		备注 Notes
1	接线端子 Connecting terminal	M5	4~5Nm		8mm	建议手动安装 Suggest manual installation
2	接线盒盖 Terminal box cover	M5	4~5Nm		PH2	
3	法兰安装孔 Flange installation hole	QJ9-50	M12 螺栓 Bolt	35~40Nm		19mm
		QJ9-80	M16 螺栓 Bolt	65~75Nm		19mm
4	排污塞 Sewage outlet	M8	18~22 Nm			

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)