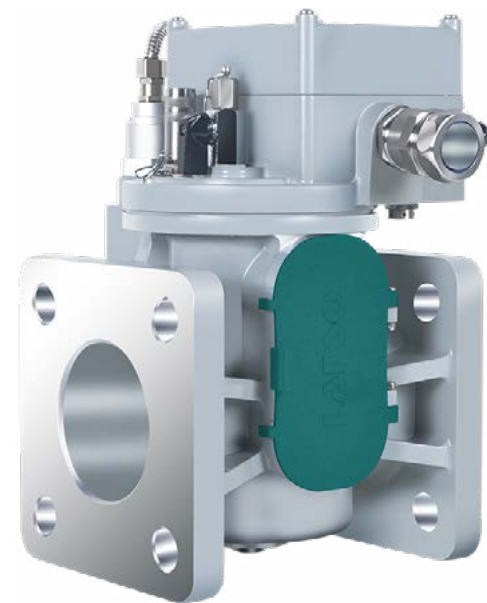


# TR-80-R Intelligent Buchholz Relay



TR-80-R  
Intelligent gas relay

## Description

TR-80-R Intelligent gas relay is a basic device applied to oil immersed transformer. It can monitor the accumulation of gas generated by leakage current, arc, flashover and other faults in the transformer in real time, and send out alarm signals when the gas reaches a certain amount; In case of serious internal fault of transformer (such as interturn short circuit, etc.), use the oil flow surge phenomenon generated at this time to trigger contact connection, and quickly lock the main circuit of transformer to protect the transformer.

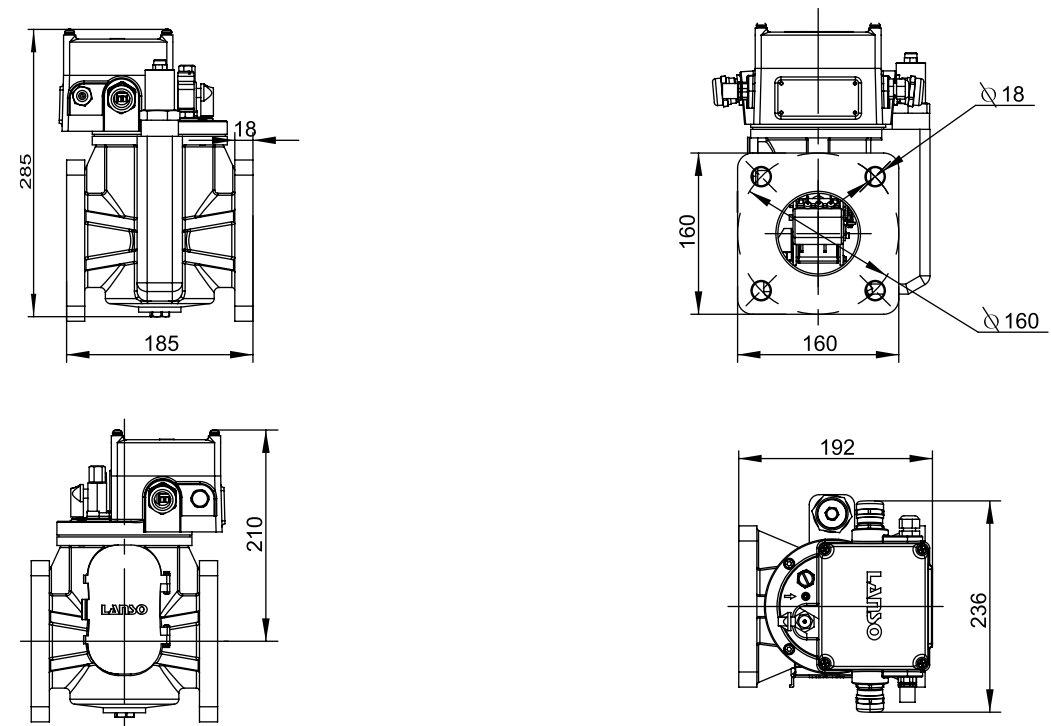
## Product features

- Up to three alarms, three locks, triple redundancy design, improve product reliability.
- It can monitor the volume of gas gas online in real time and transmit it to the background through RS485 digital signal (compatible with 4-20mA analog signal); The external independent gas volume monitoring chamber isolates the interference on the volume monitoring caused by the operation of other components.
- The all-metal high-strength movement framework is used to stabilize the flow rate setting value of up to 2.5 m/s.
- The float main shaft is equipped with imported precision bearings to increase bearing support and eliminate the hidden danger of wear due to float shaft bore.
- The streamlined float ensures stance stability at high oil speeds.
- Protection grade reaches IP67, strong salt spray resistance environment (360 hours NSS salt spray test).

## Technical parameters

Action point properties	Setting range of oil speed alarm	0.7~2.5m/s, accuracy $\pm 10\%$ ; Three pairs of dry spring contacts for light and heavy gas alarm (three alarms and three locks)		
	Electronic auxiliary action point	1 pair		
Installation environment	protective cover is required for outdoor use, Suitable for high altitude environment			
Cable connector	M25X1.5 (for action point), one on both sides of the junction box;4X0.5 Shielded cable (for remote signal)			
Electrical characteristics	Main action point	Maximum switching power of: 50W (5A), Maximum switching current: 3A		
	Auxiliary action point	Maximum switching power 150W (5A)		
	Mainboard power supply	18~36 VDC		
	Power frequency withstand voltage	between reed tube contact groups, to ground: 2.5KV DC/AC 1min; Dry contact normally open, auxiliary contact normally open: 1.0KV DC/AC 1min		
	Analog output	4~20mA		
	Digital signal output	ModBus RTU RS485		
Number of contacts	up to seven pairs, six pairs of dry spring contacts, and one pair of auxiliary changeover contacts			
Suitable for high altitude environment				
Degree of protection: IP67				
EMC Classes	IEC 61000-4-2 Class IV	IEC 61000-4-6 Class III	IEC 61000-4-12 Class III	
	IEC 61000-4-3 Class III	IEC 61000-4-8 Class V	IEC 61000-4-17 Class III	
	IEC 61000-4-4 Class IV	IEC 61000-4-9 Class V		
	IEC 61000-4-5 Class IV	IEC 61000-4-10 Class IV		

## Dimensions



Design drawing of remote transmission type

## Technical parameters

Material of main components	Case	aluminum alloy
	Observation glass	UV resistant protective glass
Working environment	Oil temperature	-40 °C ~+100 °C
	Ambient temperature	-40 °C ~+70 °C