

DR3602 Intelligent Pressure Controller



1.Description

The pressure switch is an intelligent digital pressure control switch, it integrates the functions of measuring, display, output signal and control. high-performance diffused silicon pressure sensor and digital signal processing circuit offers high long-term stability and precision. Big 4digits LED display and 2-relay make it is easy to operate on site. 2-relay and 4-20mA output available for multiple applications.

2.Specifications

Measurement range	-1bar~0bar~0.1bar~1000bar	Zero thermal drift	$\leq \pm 0.03\%FS/^{\circ}C$ ($\leq 1bar$); $\leq \pm 0.02\%FS/^{\circ}C$ ($>1bar$)
Pressure type	gauge, absolute or sealed gauge pressure	Span thermal drift	$\leq \pm 0.03\%FS/^{\circ}C$ ($\leq 1bar$); $\leq \pm 0.02\%FS/^{\circ}C$ ($>1bar$)
Over pressure	200%FS or 1100bar (min. value is valid)	Compensated Temp.	0 $^{\circ}C$ ~ + 50 $^{\circ}C$
Accuracy	$\pm 0.1\%FS$ / $\pm 0.25\%FS$ / $\pm 0.5\%FS$	Working temp.	-30 $^{\circ}C$ ~ + 70 $^{\circ}C$
Stability	$\pm 0.3\%FS$ (1 year)	Storage Temp.	-30 $^{\circ}C$ ~+70 $^{\circ}C$
Output	2 relay+4mA~20mA DC(2-wire);	Pressure interface	NPT1/2 NPT1/4 G1/2 G1/4 M20 * 1.5
Load	DC24V 1.2A/AC 220V 3A	Insulation resistance	500M Ω @500V DC
Housing	stainless steel 304	Protection level	IP44
Diaphragm	stainless steel 316L	Power supply	24V DC/220V AC
Sealing ring	Viton	Cable	Φ 7.5mm Polyethylene Special Cable

3.Installation

1. Mechanical connection

It can be directly mounted in the hydraulic pipe by the connecting thread. In critical application, such as server vibration or shock, soft hose is recommended to use.

2. Electrical connection

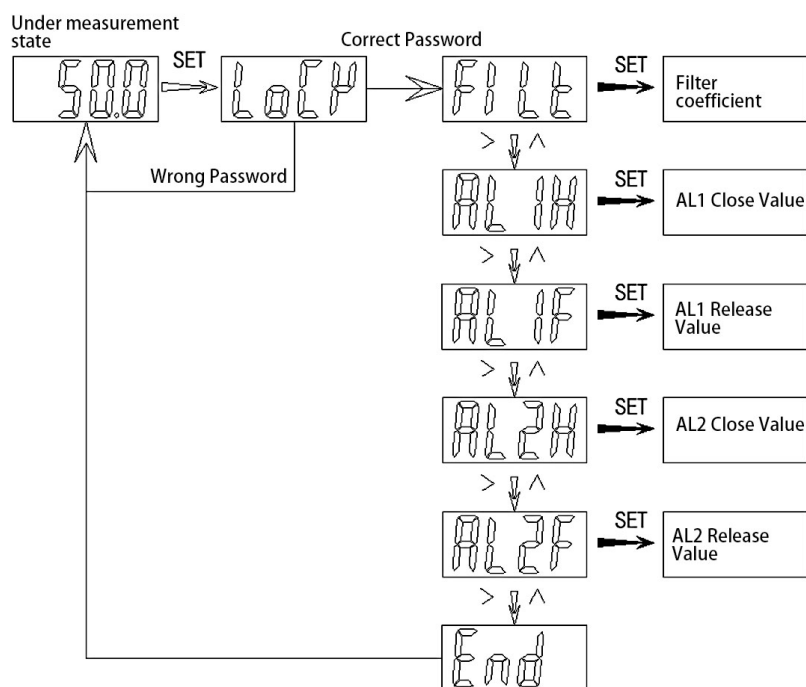
To avoid electromagnetic interference, please know

- 1)the cable system should be as short as possible
 - 2)To use shielded wire
 - 3)To keep way from any interference resources, for example, electric appliances and devices.
- If installed by soft hose, its body should be grounded independently.

Cable Connection:

No.	Wire Color	Description
1	Red	V+
2	Black	V-
3	Blue	Out+
4	Green	Out-
5	Yellow	SP1 Common
6	Grey	SP1 NO
7	White	SP2 Common
8	Brown	SP2 NC

4.Setting



FILT: Display filter coefficients

AL1H: Relay 1 (AL1/SP1) close value

AL1F: Relay 1 (AL1/SP1) release value

AL2H: Relay 2 (AL2/SP2) close value

AL2F: Relay 2 (AL2/SP2) release value

END : Save and exit

Note:

If $AL1H > AL1F$, this SP1 is the upper limit alarm mode, if $AL1H < AL1F$, then this SP1 is the lower limit alarm mode, if $AL1H = AL1F$, this SP1 is closed. $Hysteresis = Abs(AL1H - AL1F)$. SP2 settings are the same as SP1.



Zero bit clear:

Notice!

After using the reset function, the pressure controller takes the current pressure as the lower limit of measurement.

► Ensure that the current pressure is zero or determine the lower limit of the current pressure measurement.

In the zero pressure state, long press ">" (middle button), and long press for 3-4 seconds to reset. Performing the reset operation again will restore the factory calibration state.

5.Disassembly, maintenance, cleaning and rework

5.1 Product disassembly



warn!

The controller is used in dangerous places such as toxic, harmful, high temperature and high pressure.

- ▶ Follow the relevant operating instructions.
- ▶ Wear the necessary protective equipment.

The pressure controller needs to be depressurized and de-energized, disconnect the electrical connection, and remove with a wrench.

5.2 Maintenance:

The controller is normally used without maintenance, only by the manufacturer.



When the explosion-proof controller is used, improper operation will cause the explosion-proof performance to fail.

- ▶ Intrinsically safe explosion-proof products are not allowed to replace circuit components or structures, so as not to affect the explosion-proof performance of the product.

5.3 Cleaning



Using the wrong cleaner can damage the product's label

- ▶ Do not use harsh cleaning agents.
- ▶ Do not use harmful or sharp sanitary ware.
- ▶ Do not use abrasive cloths or sponges.

Wash the product with water and conventional detergents. Before cleaning, the pressure controller needs to be depressurized and de-energized. Wipe the surface of the controller with a damp cloth.

5.4 Rework



Residual media can cause personal injury, property damage, and environmental damage

Residual media on disassembled pressure controllers can be hazardous to personnel, the environment and equipment.

- ▶ With hazardous substances, material safety data sheets for the corresponding media are included.

When transporting the pressure controller, it is important to note the following:

All delivered instruments must be free of any hazardous substances (such as acids, bases, solutions, etc.) and be cleaned before being returned.

When returning the instrument for repair, use the original packaging or suitable shipping packaging.

5.5 Handling

Improper handling of the product can be harmful to the environment.

Dispose of instrument components and packaging materials in an environmentally compatible manner and in accordance with country-specific waste disposal regulations.

6.Fault



Notice!

Once the failure of the product cannot be eliminated, the pressure controller must be disassembled immediately.

- ▶ Make sure that there is no pressure or signal to prevent the device from continuing to operate.
- ▶ Contact the manufacturer.



warn!

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In the event of any malfunction of the controller, first check whether the controller is installed correctly from both the pressure connection and the electrical connection.

Common faults and solutions are as follows:

Issue	Reason	Solution
No output	Cable disconnection	Check connection
Signal exceeds over full scale	Exceeded pressure limit	Follow the permissible pressure range
Large error	Exceeds the ambient temperature	Use within the allowable temperature range
No change in pressure, constant output	Damaged pressure switch	Replace pressure switch
Signal jumps	There are EMC interference sources on site, such as frequency converters	Use shielded cables