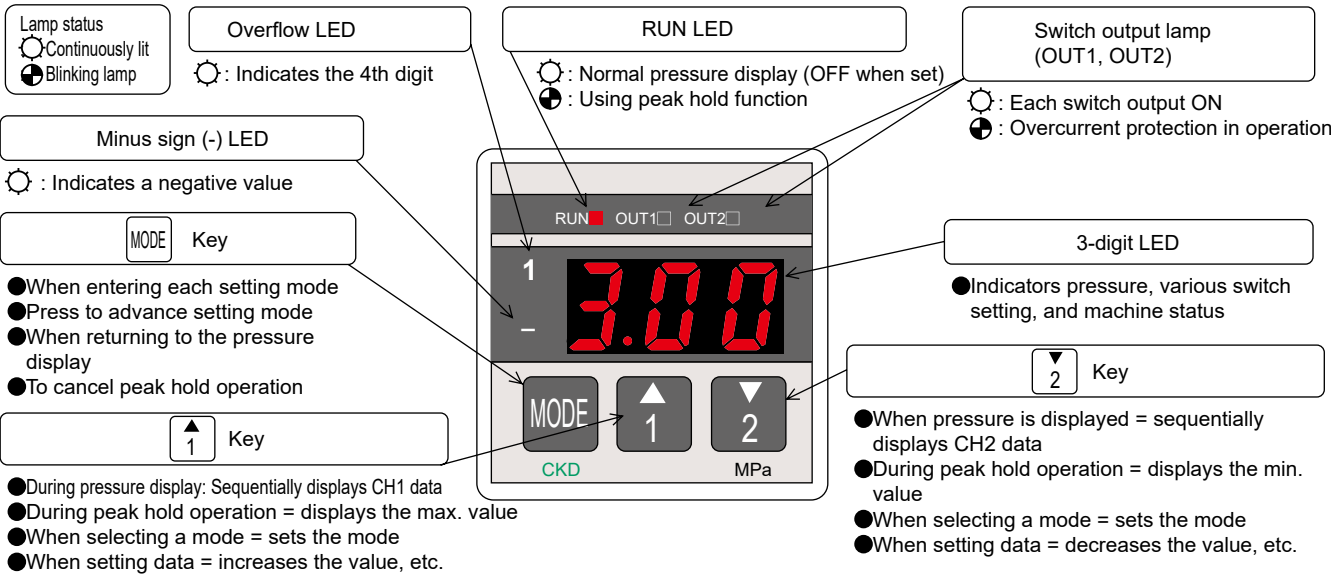


Indicator and function



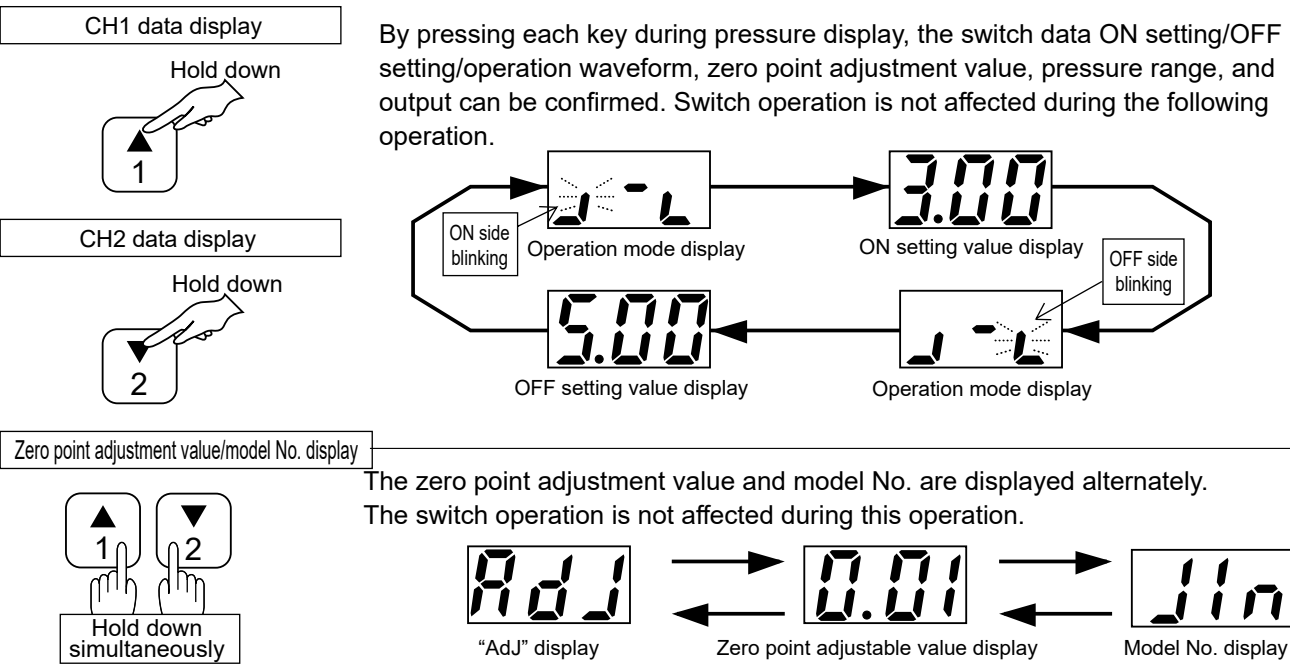
LED display

Numbers and letters are displayed with a combination of LED displays.

Numerals	0	1	2	3	4	5	6	7	8	9
Indicator	0	1	2	3	4	5	6	7	8	9

Numerals	A	B	C	D	H	I	J	L	N	O	P
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
Indicator	A	b	c	d	e	f	g	h	i	j	k

Confirmation of set value



For details on operation and setting method, refer to CKD components product website (<https://www.ckd.co.jp/kiki/en/>) → "Model No." → Instruction manual



Pneumatic components (pressure switch for coolants)

Safety Precautions

Be sure to read this section before use.
For general pneumatic components precautions, refer to Intro 17 for details.

Electronic pressure switch for coolants (with digital display) CPD Series

Design / Selection

WARNING

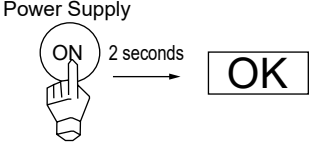
- Use this product in accordance with specifications.
Use for applications or at load currents, voltages, temperatures, impacts or sites outside of the specifications could result in damage or malfunctions.
- Do not use with high pressure gas.
This product is not approved under the High Pressure Gas Safety Act. Do not use for devices subject to the High Pressure Gas Safety Act.
- Never use this product in an explosive gas atmosphere.
The pressure switch does not have an explosive-proof structure. Never use in an explosive gas atmosphere as explosions or fires could result.

- Be careful of internal voltage drop.
When using with a voltage less than the specified voltage, the pressure switch may be activated correctly, but the load may not function correctly. Check the load working voltage to see that the following formula is satisfied:

Power supply voltage - internal voltage drop > load working voltage

CAUTION

- The product self-diagnoses the internal circuit immediately after power is turned ON, so pressure is not detected immediately. Set the control circuit so that signals are ignored for about 2 seconds after power is turned ON.

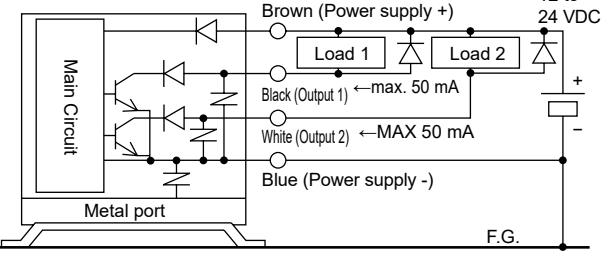


- This product's overcurrent protection turns the output OFF when an overcurrent is detected. However, the output is repeatedly turned ON for a short time at a set cycle. This causes power supply voltage to fluctuate and may adversely affect peripheral devices.
- Determine the setting, taking error caused by accuracy limitations and temperature characteristics into consideration.
- Take care when using this product for an interlock circuit.
When using the pressure switch for an interlock signal requiring high reliability, provide a double interlock by installing a mechanical protection function or a switch (sensor) other than a pressure switch as a safeguard against breakdown. Regularly inspect and confirm that the interlock activates correctly.

- Take the following countermeasures to prevent malfunction caused by noise.
 - Insert a line filter in the AC power supply line.
 - Use a surge suppressor such as a CR or diode on the inductive load (solenoid valve, relay, etc.) and remove noise from the source.
 - Separate wiring from strong magnetic fields.
 - Connect wiring with shielded wire.
 - Ground the shield wire on the power supply side.

- Working environment
Check the temperature of fluid being measured and the environmental temperature in piping.

Circuit and connection method



- Install the CPD on a frame or panel connected to the frame ground (F.G.) and, if necessary, directly connect from the CPD port to the F.G. When leading fluids in from an external device, connect via a relay fitting connected to the F.G. (To provide safety when using conductive fluids)
- This CPD power supply is a DC stabilized power supply completely isolated from the AC primary side. Connect either the + side or - side of the power to the F.G. A varistor (limit voltage approx. 40 V) is connected between the internal power circuit and port/mounting section of this CPD to prevent dielectric breakdown of the sensor. Avoid withstand voltage and insulation resistance tests between the CPD's internal power supply circuit and port/mounting section. Disconnect CPD wiring first if this testing is required. An excessive potential difference between the CPD power supply and port/ installation section could burn internal parts. After installing, connecting and wiring the CPD, electrical welding of the device/ frame, short-circuit accidents, etc., could cause welding current, excessively high voltage caused by welding, or surge voltage, etc., to run through the wiring, ground wire, or fluid path connected between the above devices, damaging wires or devices. Conduct any work such as electrical welding after removing this device and disconnecting all electric wires connected to the FG.

- Install a damper, absorber or accumulator as necessary if the water hammer, rush pressure or pulsation must be reduced. Pressure exceeding proof pressure even momentarily could damage the CPD.

For precautions during mounting, installation, adjustment, use and maintenance, refer to the CKD Components Product Site (<https://www.ckd.co.jp/kiki/en/>) → "Model No." → Instruction Manual