Safety Precautions

Always read this section before use.

Speed controller with dial

Design & selection

CAUTION

■ This valve can not be used as a stop valve that has no leakage.
Slight leakage is allowed in product specifications.

■ Note that the flow rate may differ from the values on page 904 depending on the piping conditions around the unit and the temperature change.

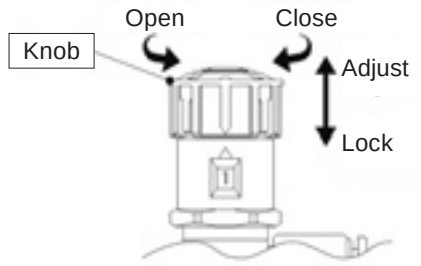
■ Do not use this valve in circuits where ozone is generated intentionally.
Ozone resistance is sufficient for naturally generated ambient ozone. Packing deteriorates if ozone levels are high.

Mounting / Installation / adjustment

CAUTION

■ The needle lock is released when the knob is pulled, and is locked when pressed.

■ To adjust the flow rate, turn the knob to the right to close or the left to open.



● When opening by rotating the knob to the left, the dial indicator will rotate clockwise: standard, and counterclockwise: compact.

■ Do not handle the knob too quickly or roughly.
● Doing so may cause an indication error or other failures.

■ After adjustment, push the knob to lock the needle.

■ Controllable range of the needle is from 1 to 7 or 1 to 10 turns; operate with a maximum of 0.05 N·m torque.
Turning the knob beyond the range forcibly may result in distorted flow characteristics or malfunctions.

■ Even when the needle is fully closed, the dial display is not 0.
Calibration of the flow rate against the dial indication is performed when the needle is not fully closed. Note that “0” is not always indicated when the needle is fully closed. A reading lower than "0" will be expressed by "-".

■ Adjust speed by opening when the needle is nearly closed.
If the needle is opened, the actuator could pop out suddenly and pose a hazard.

■ Confirm the final speed after each usage.
Confirm the final speed after each usage as the variabilitybetween products, actuators, conditions of use andambient temperatures will cause deviations.

■ Use the specified tightening torque (table 1-(1)) when connecting pipes. To additionally tighten to adjust the position of the rotation rate indication window, use the torque in (table 1-(2)).
Do not hold the knob when piping. Doing so may cause failure. Note that a pipe of port size:M5 cannot be aligned by re-tightening.

Thread size	(1) Connecting a pipe (N·m)	(2) Additional tightening (N·m)
M5	1.0 to 1.5	–
R1/8	3 to 5	9 or less
R1/4	6 to 8	14 or less
R3/8	13 to 15	24 or less
R1/2	16 to 18	30 or less

Tightening torque of port thread (table 1)

■ Do not apply a lateral load to the main unit during or after installation.