

F.R.L.
F.R.
F (Filtr)
R (Reg)
L (Lub)
Drain
Separ
Mech
Press SW
Res press
exh valve
SlowStart
Anti-bac/Bac-
remove Filt
Film
Resist FR
Oil-ProhR
Med
Press FR
No Cu/
PTFE FRL
Outdrs FRL
Adapter
Joiner
Press
Gauge
CompFRL
LgFRL
PrecsR
VacF/R
Clean FR
ElecPneR
AirBoost
Speed Ctrl
Silncr
CheckV/
other
Fit/Tube
Nozzle
Air Unit
PrecsCompn
Electro
Press SW
ContactSW
AirSens
PresSW
Cool
Air Flo
Sens/Ctrl
WaterRtSens
TotAirSys
(Total Air)
TotAirSys
(Gamma)
Gas
generator
RefrDry
DesicDry
HiPolymDry
MainFiltr
Dischrg
etc
Ending

⚠ Safety precautions

■ Design/selection

⚠ WARNING

- Use this product in accordance with specifications.
 - Use for applications outside the specifications, or at load currents, voltages, temperatures, impacts or environments likewise could result in damage or malfunction.
- Power supply voltage
 - Do not use this product at levels exceeding the power supply voltage. The product could rupture or burn if voltage exceeding the working range is applied or if an AC power supply (100 VAC) is applied.
- Load short-circuit
 - Do not short-circuit the load. Failure to observe this could result in rupture or burning.

⚠ CAUTION

- Working environment
 - Avoid using this product where vibration or impact exceeding 100 m/S² could be applied.
 - Do not use this product in areas containing water droplets, oil droplets, or dust.
- Determine the set value taking error caused by accuracy and temperature characteristics into consideration.
- Take care when using this product for an interlock circuit.
 - When using this product for an interlock signal requiring high reliability, provide a double interlock by installing a mechanical protection function or a switch (sensor) other than this product as a safeguard against failure.

■ Mounting, installation and adjustment

⚠ WARNING

- Connecting
 - Be sure to turn power OFF before wiring and connecting this product.
 - Avoid miswiring. It may cause damage, failure or misoperation.
 - Use a stabilized low-noise power supply with a ripple rate of 10% or less.
 - Install this product and wiring as far away as possible from sources of noise such as power distribution wires. Take separate measures against surge generated from inductive loads that enters the power wire.
 - Do not start the control unit, machinery or equipment immediately after wiring. Unpredictable signals could be output due to incorrectly set values. Conduct an energized test with the control unit, machinery and equipment stopped, and set required switches.

⚠ CAUTION

- Range setting
 - When using the product, be sure to set the range and units before operation.

■ Use/maintenance

⚠ CAUTION

- For safety, turn the power OFF before connecting the sensor.
- Regarding the sensor to be connected, follow the precautions in the sensor's instruction manual.

● Corresponding sensors

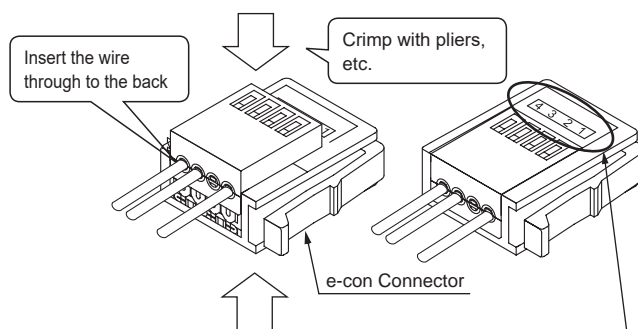
- The corresponding sensor is the voltage output (1 to 5 V) type. If the current output type or other voltage output type is connected, it will not operate properly.
- The maximum supply current to the sensor is 100 mA. Check the specifications of the connected sensor before use.
- As the compatible e-CON type varies depending on the sensor, select upon confirmation with How to order on page 2.
- The FSM2 separated display sensor cannot be used as is, because the e-CON wiring pin array is different.

● Working conditions for CE compliance

- The standard for the immunity for industrial environments used for CE conforming products is EN61000-6-2, but the following requirements must be satisfied in order to conform to this standard. Conditions
- The evaluation of this product is performed by using a cable with a paired power supply line and signal line to assess the performance.
 - This product is not equipped with surge protection. Implement surge protection measures on the equipment side.

● Care must be taken to protect the body and lead wire.

- Check that stress is not directly applied to cable leadouts or connectors.
- Connect and wire bending-resistant material, such as robot wire material, for the movable parts.
- For e-CON connector wiring connection, cut the tip of the sensor lead wire for use. Insert the wire through to the back of the connector, and securely crimp with pliers, etc. The wire sheath does not need to be removed.
- As the analog voltage output lead wire sheath color varies depending on the sensor, check the sensor specifications before e-CON wiring. Check that the pin No. and sensor wiring are correct before crimping. Incorrect wiring can result in malfunction, failure, or damage to the sensor or to this product.



PIN No.	Sensor wiring
1	Power supply +
2	N.C.
3	Power supply -
4	Sensor input (1 to 5 V)