



Inexpensive Microflow Coriolis Flowmeters

CoriMateII

Easy to use...Exceeding your expectations of Coriolis flowmeters!

[Mass flow measurement]

[Measurement of multiple kinds of liquid at laboratories or research facilities]

[Medicinal solution, solvent process]

[Slurry liquid, mixture process]

[Paint, spray, additive applications]



We add value to the flow



OVAL Corporation

GENERAL SPECIFICATIONS

| Item | Description | | |
|------------------------------------|--|---------------|---------------|
| Model | CR002 | CR003 | CR004 |
| Materials | Wetted parts SUS316L and SCS16A (*1) | | |
| | Base | ADC12 | SUS304 |
| | Housing and cover | ADC12 | |
| | Display shield | Polycarbonate | |
| Process connection | Rc 1/8 | | |
| Acceptable fluid | Liquid (Density range: 0.3 to 2.0 g/mL) | | |
| Operating temperature range | -10 to +60°C (Free of dew condensation) | | |
| Max. operating pressure | 2MPa | | |
| Flow directions | Forward flow only | | |
| Power supply | 20 to 30VDC | | |
| Power consumption | Max.10W | | |
| Furnished cable | AWG24x7 conductor, φ6.8x3m | | |
| Dustproof, waterproof construction | IP66 | | |
| Installation | <ul style="list-style-type: none"> Horizontal installation (clamp not required) Vertical installation (Bolthole provided) | | |
| Display | Backlit dot matrix: 8 digits | | |
| Variables displayed | Instant mass flow, mass flow total, temperature | | |
| Weight | Approx. 3kg | Approx. 3kg | Approx. 6.5kg |
| Communication interface | Bell 202 (using the HART protocol) | | |
| Pulse output (*2) | Mass flow total open collector output (30V, 50mADC max.) FS: 0.1 to 1000Hz selectable •CR002:0.01g/P at 125Hz •CR003:0.01g/P at 500Hz •CR004:0.1g/P at 450Hz | | |
| Analog output (*2) | 4 to 20mADC Max. load 600Ω Instant mass flowrate Damping: 1 sec. (std.) •CR002:0 to 75g/min •CR003:0 to 300g/min •CR004:0 to 2700g/min | | |

(*1): Corrosion resistance of nickel brazing used in wetted parts is equivalent to SUS314.

(*2): The pulse output at the time of the shipment and analog output are standard setting. (Setting change possible)

GENERAL PERFORMANCE

| Item | Description | | |
|--------------------|------------------------------|---|-------|
| Model | CR002 | CR003 | CR004 |
| Flow rate (Liquid) | Max. Flow rate g/min | 75 | 300 |
| | Min. Analog range g/min | 5 | 20 |
| | Cutoff g/min (*1) | 1.5 | 6 |
| | Factory calibration accuracy | ±0.1% of F.S.F. (Below 33% of flow rate) ±0.3% RD. (33% to 100% of flow rate) | |
| | Repeatability | ±0.07% of F.S.F. (Below 33% of flow rate) ±0.2% RD. (33% to 100% of flow rate) | |
| | Analog accuracy | Accuracy ±0.1% of full scale | |

(*1): The flow rate (output signal and indication level) becomes zero at cutoff level or lower. (Setting change by the customer is available.)

PRODUCT CODE EXPLANATION

| Item | Product Code | | | | | | | | | | | | | Description |
|--------------------------|--------------|---|---|---|---|---|---|---|---|---|---|---|-------------|---|
| | ① | ② | ③ | ④ | ⑤ | ⑥ | ⑦ | ⑧ | ⑨ | ⑩ | ⑪ | ⑫ | ⑬ | |
| Model | C | R | | | | | | | | | | | | CoriMate |
| Nominal size | | | 0 | 0 | 2 | | | | | | | | | 0.7mm, Flow range (g/min): 2.5 to 75, Rc 1/8 |
| | | | 0 | 0 | 3 | | | | | | | | | 1.5mm, Flow range (g/min): 10 to 300, Rc 1/8 |
| | | | 0 | 0 | 4 | | | | | | | | | 3mm, Flow range (g/min): 90 to 2700, Rc 1/8 |
| Structural category | D | - | | | | | | | | | | | CoriMate II | |
| Material | | | | | | S | S | - | | | | | | SUS316L |
| Process connection | | | | | | | | | 2 | | | | | Screw connection |
| Connection rule | | | | | | | | | 0 | | | | | Always "0" |
| Pressure category | | | | | | | | | 0 | | | | | Always "0" |
| Transmitter construction | | | | | | | | | | N | | | | Non-explosionproof, integral type transmitter |
| Version code | | | | | | | | | | | | | B | |

OUTLINE DIMENSIONS

●CR002 and CR003

4-7 drill 12 c.bore 0.5 deep
Bolthole
(For hex socket headed bolt M6)

| No. | Name |
|-----|--|
| ① | Nozzle |
| ② | Flowtube |
| ③ | Housing and Cover |
| ④ | Base |
| ⑤ | Display shielding |
| ⑥ | Interconnect Cable (7-conductor, shielded) |
| ⑦ | Cable Gland |
| ⑧ | Magnet for Switching |
| ⑨ | Base pad |

Detail of A (Wiring)

- Power DC +(Brown)
- Power DC -(Pink)
- Pulse output +(Blue)
- Pulse output -(Gray)
- Analog output +(Green)
- Analog output -(White)
- Ground (Yellow)

●CR004

4-7 drill 12 c.bore 10 deep
Bolthole
(For hex socket headed bolt M6)

| No. | Name |
|-----|--|
| ① | Nozzle |
| ② | Flowtube |
| ③ | Housing and Cover |
| ④ | Base |
| ⑤ | Display shielding |
| ⑥ | Interconnect Cable (7-conductor, shielded) |
| ⑦ | Cable Gland |
| ⑧ | Magnet for Switching |
| ⑨ | Base pad |

Detail of A (Wiring)

- Power DC +(Brown)
- Power DC -(Pink)
- Pulse output +(Blue)
- Pulse output -(Gray)
- Analog output +(Green)
- Analog output -(White)
- Ground (Yellow)

Unit in mm

The specification as of April, 2023 is stated in this catalog. Specifications and design are subject to change without notice.



OVAL Corporation

3-10-8 Kamiochiai, Shinjuku-ku, Tokyo 161-8508
 Phone: +81 3-3360-5121 FAX: +81 3-3365-8605

<https://www.oval.co.jp/english>

