



# 水下化学药剂注入计量阀

(Chemical Injection Metering Valve / Chemical Throttle Valve/ Subsea Chemical Injection Delivery System, CIMV / CTV / SCIDS, 以下 CIMV)是一款用于精

CIMV利用具有完全自主知

DNV

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## 技术指标

|  | (LF) CIMV技术指标                          | (HF) CIMV              |
|--|--|------------------------|
|  | CIMV-1000L                             | CIMV-2000H             |
|  | 73Kg(空气中) / 61Kg(水中)                   | 120Kg(空气中) / 100Kg(水中) |
|  | 0.75L/h~180L/h (可扩展)                   | 120L/h~6000L/h (可扩展)   |
|  | 10000psi                               |                        |
|  | -18°C~70°C                             |                        |
|  | 3000米                                  |                        |
|  | 30年                                    |                        |
|  | ± 2.5% F.S.                            |                        |
|  | SAE AS4059 12B-F, 推荐优于SAE AS4059 10B-F |                        |
|  | 24VDC                                  |                        |
|  | 12W                                    |                        |
|  | Modbus RTU / CANopen                   |                        |
|  | (DNV)                                  |                        |
|  | API 17Y、API 6A、API 17D、API 17F         |                        |

## 产品特点

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## 应用

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## 应用效果

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# Chemical Injection Metering Valve (CIMV)

Chemical Injection Metering Valve (CIMV), also called as Chemical Throttle Valve (CTV) or Subsea Chemical Injection Delivery System (SCIDS), is a device for the precise control and metering of various chemicals (such as methanol, MEG, scale inhibitors, etc.) injected into subsea production system. Precise control of the chemicals flow to subsea production system is crucial for preventing the formation of hydrates, wax, and scales in pipelines, which is vital for ensuring the normal function and long-term stable operation of subsea production system. Two versions of CIMV, high flow rate and low flow rate respectively, were developed utilizing redundant metering technologies which are 100% proprietary intellectual property. The CIMVs have been certified by the authoritative third party DNV, which guarantees 30 years service life and accurate metering precision under harsh conditions such as low temperatures at the seabed, high internal and external pressure, etc.

## Features

- Compatible with all known commonly used chemicals.
- Certified by authoritative third party (DNV).
- High turn-down ratio up to 500:1 or higher.
- Self-flushing feature to avoid any blocking.

## Benefits

- Precise chemical injection as needed, avoiding waste.
- Enhances production optimization and flow assurance.
- Ensures long-term reliability and lifespan of subsea production system.

## Applications

- Precise control and measurement of injected chemicals
- Flow assurance

## Specifications

| Items                     | Low-Flow CIMV                         | High-Flow CIMV                        |
|---------------------------|---------------------------------------|---------------------------------------|
| Model                     | CIMV-1000L                            | CIMV-2000H                            |
| Weight                    | 73kg (in air) / 61kg (in water)       | 120kg (in air) / 100kg (in water)     |
| Flow-rate range           | 0.75 L/h to 180 L/h (can be extended) | 120 L/h to 6000 L/h (can be extended) |
| Design pressure           | 10000 psi                             |                                       |
| Design temperature        | -18 ~ 70°C                            |                                       |
| Water depth               | 3000m                                 |                                       |
| Design life               | 30 years                              |                                       |
| Accuracy                  | ± 2.5%F.S.                            |                                       |
| Operating environment     | SAE AS4059 12B-F                      |                                       |
| Power supply              | 24±4VDC                               |                                       |
| Power consumption         | 12W                                   |                                       |
| Communication protocol    | Modbus RTU / CANopen                  |                                       |
| Third party certification | DNV                                   |                                       |
| Design code               | API 6A、17D、17F、17Y                    |                                       |

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