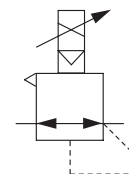


# ELECTRO-PNEUMATIC REGULATOR SERIES MAER200



The electro-pneumatic regulator is used for continuous electronic regulation of the output pressure based on the voltage or current input signal. The outlet pressure can therefore be dynamically adapted to the requirements of the application. The valve is also equipped with an output that can be further processed. High accuracy is achieved thanks to the integrated processor and PID control. The maximum flow at an inlet pressure of 1 MPa and an outlet pressure of 0.6 MPa is up to 1500 Nl/min.

**i** A model controlled by RS-232 / RS-485 with Modbus protocol is also available. For more information, contact the technical department.



| Type                            |                   | MAER200  |              |              |
|---------------------------------|-------------------|--|--------------|--------------|
| Pressure range (see order code) |                   | 1K   | 5K           | 9K           |
| Port size                       |                   | in/out: G1/4", G3/8", relief: G1/4", control exhaust: M5   |              |              |
| Medium                          |                   | modified compressed air  |              |              |
| Test pressure [MPa]             |                   | 0.3  | 1.5          | 1.5          |
| Temperature range [°C]          |                   | -5 to +50  |              |              |
| Min. supply pressure [MPa]      |                   | set pressure + 0.1   |              |              |
| Max. supply pressure [MPa]      |                   | 0.2  | 0.7          | 1.0          |
| Setting pressure range [MPa]    |                   | 0.005 to 0.1   | 0.005 to 0.5 | 0.009 to 0.9 |
| Supply voltage [V]              |                   | 24V DC ±10%  |              |              |
| Power consumption [A]           |                   | 0.08 or less   |              |              |
| Input signal                    | current type [mA] | DC, 4 to 20, impedance ≤ 400 Ω   |              |              |
|                                 | voltage type [V]  | DC, 0 to 5, or 0 to 10, impedance approx. ≤ 50 kΩ  |              |              |
|                                 | preset input      | 4 points (one point should be set to zero due to safety reasons, combinations of 2 input signals), impedance approx. ≤ 1000 kΩ |              |              |
| Output signal                   | analog            | DC output current 4 to 20 mA (load impedance 750Ω or less), DC output voltage 1 to 5 V (load impedance 1kΩ or above)           |              |              |
|                                 | switch            | PNP or NPN output, max. voltage 24V DC, max. current 160 mA  |              |              |
| Linearity                       |                   | within ±1% F.S.  |              |              |
| Hysteresis                      |                   | within 0.5% F.S.   |              |              |
| Repeatability                   |                   | within ±0.5% F.S.  |              |              |
| Sensitivity                     |                   | within 0.2% F.S.   |              |              |
| Temperature characteristics     |                   | within ±0.2% F.S./°C   |              |              |
| Output pressure display         |                   | precision: ±2% F.S., ±1 digit, min. unit: 0.001 (MPa), 0.01 (bar, kg/cm <sup>2</sup> ), 0.1 (psi), 1 (kPa)                     |              |              |
| Enclosure                       |                   | equivalent to IP65   |              |              |
| Weight [kg]                     |                   | valve: 0.36, bracket: 0.086 (L type), 0.08 (flat type), connector with cable: 0.055 (1m), 0.13 (3m)                            |              |              |

## Order codes

PMAER200 10A 9K 2 3 1

| Port size |       | Pressure range |                  | Input signal |                 | Output signal |                         | Display unit |                    |
|-----------|-------|----------------|------------------|--------------|-----------------|---------------|-------------------------|--------------|--------------------|
| 8A        | G1/4" | 1K             | 0.005 to 0.1 MPa | 1            | current 4-20 mA | 1             | analog, voltage 1-5 V   | 1            | MPa                |
| 10A       | G3/8" | 5K             | 0.005 to 0.5 MPa | 2            | voltage 0-10 V  | 2             | switch, NPN             | 2            | kg/cm <sup>2</sup> |
|           |       | 9K             | 0.009 to 0.9 MPa | 3            | voltage 0-5 V   | 3             | switch, PNP             | 3            | bar                |
|           |       |                |                  | 4            | 4 preset points | 4             | analog, current 4-20 mA | 4            | psi                |
|           |       |                |                  |              |                 | 0             | for input signal 4      | 5            | kPa                |

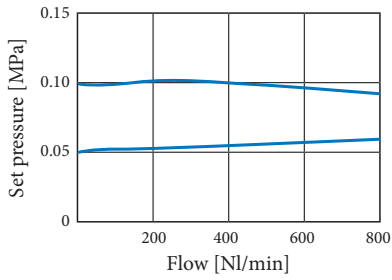
## Order codes - accessories

| Description       | Order code  | Description                   | Order code  | Description                 | Order code  |
|-------------------|-------------|-------------------------------|-------------|-----------------------------|-------------|
| L type bracket    | PMAER200-B1 | Straight connector, cable 1 m | PMAER200-S1 | L type connector, cable 1 m | PMAER200-L1 |
| Flat type bracket | PMAER200-B2 | Straight connector, cable 3 m | PMAER200-S3 | L type connector, cable 3 m | PMAER200-L3 |

## Capacity Flow rate

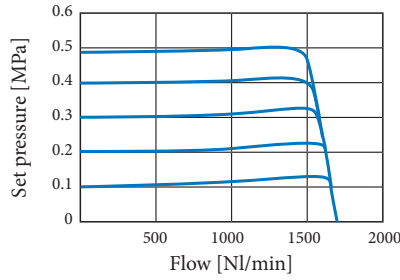
Pressure range 1K

Supply pressure 0.2 MPa



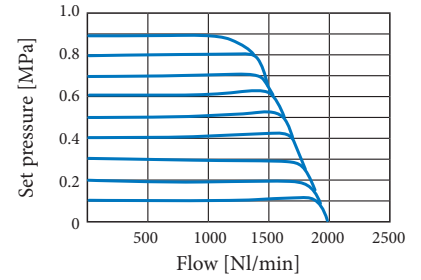
Pressure range 5K

Supply pressure 0.7 MPa



Pressure range 9K

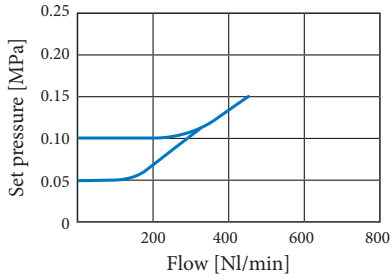
Supply pressure 1.0 MPa



## Relief flow rate

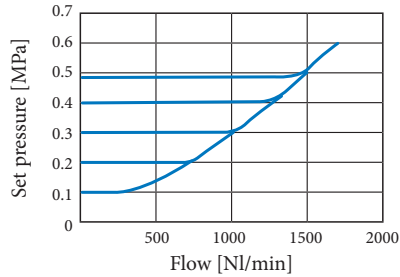
Pressure range 1K

Back pressure 0.2 MPa



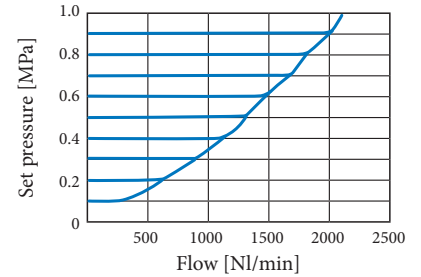
Pressure range 5K

Back pressure 0.7 MPa



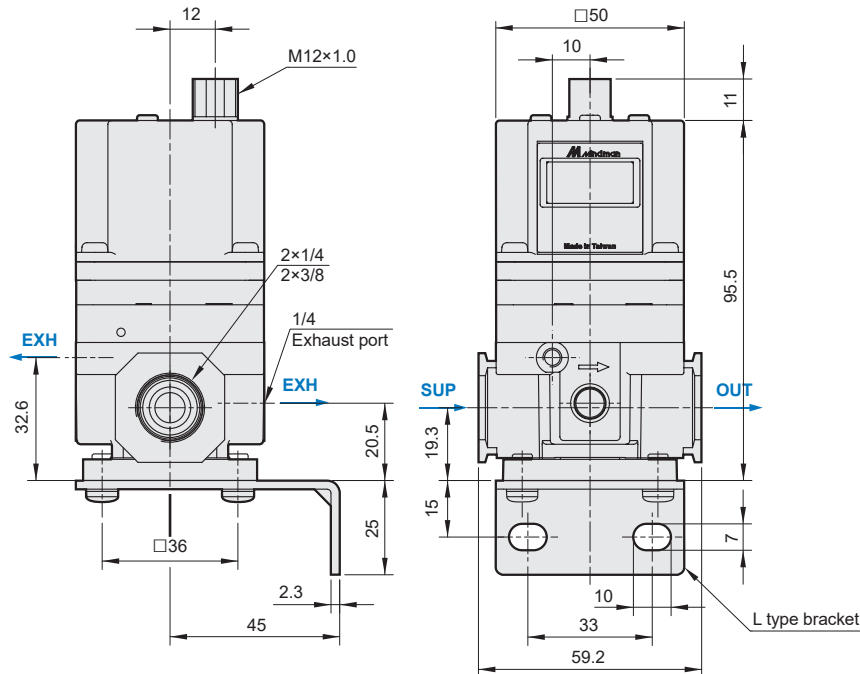
Pressure range 9K

Back pressure 1.0 MPa

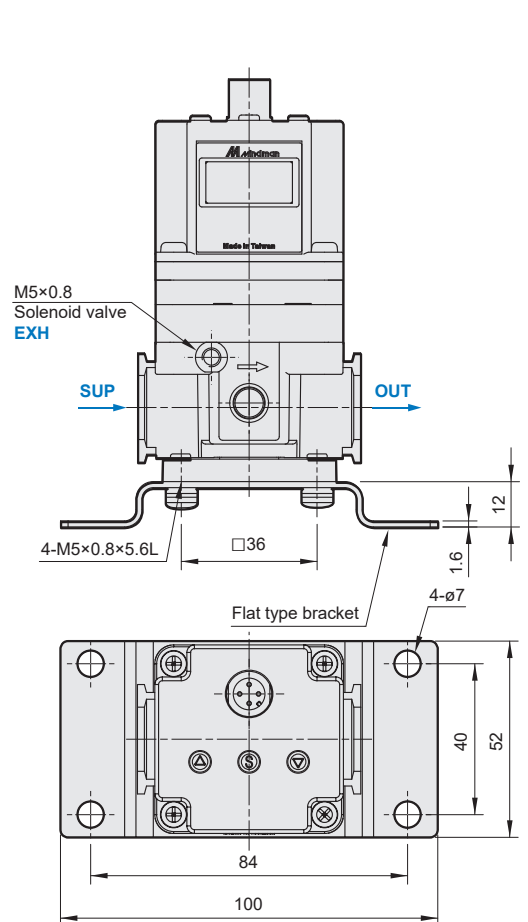


## Dimensions

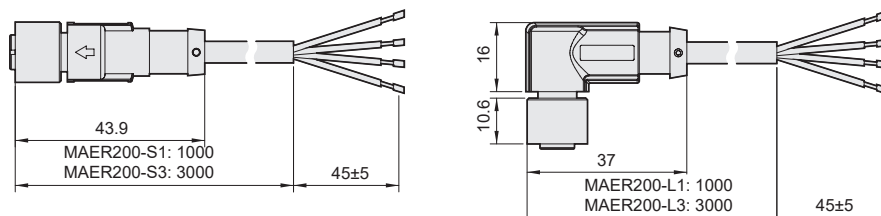
MAER200 with L type bracket



MAER200 with flat type bracket



## Connectors

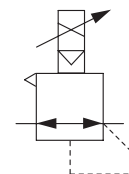


# ELECTRO-PNEUMATIC REGULATOR SERIES MAER300



The electro-pneumatic regulator is used for continuous electronic regulation of the output pressure based on the voltage or current input signal. The outlet pressure can therefore be dynamically adapted to the requirements of the application. The valve is also equipped with an output that can be further processed. High accuracy is achieved thanks to the integrated processor and PID control. The maximum flow at an inlet pressure of 1 MPa and an outlet pressure of 0.6 MPa is up to 4000 Nl/min.

**i** A model controlled by RS-232 / RS-485 with Modbus protocol is also available. For more information, contact the technical department.



| Type                            |                   | MAER300  |              |              |
|---------------------------------|-------------------|--|--------------|--------------|
| Pressure range (see order code) |                   | 1K   | 5K           | 9K           |
| Port size                       |                   | in/out: G1/4", G3/8", G1/2"; relief: G1/2"; control exhaust: M5  |              |              |
| Medium                          |                   | modified compressed air  |              |              |
| Test pressure [MPa]             |                   | 0.3  | 1.5          | 1.5          |
| Temperature range [°C]          |                   | -5 to +50  |              |              |
| Min. supply pressure [MPa]      |                   | set pressure + 0.1   |              |              |
| Max. supply pressure [MPa]      |                   | 0.2  | 0.7          | 1.0          |
| Setting pressure range [MPa]    |                   | 0.005 to 0.1   | 0.005 to 0.5 | 0.009 to 0.9 |
| Supply voltage [V]              |                   | 24V DC ±10%  |              |              |
| Power consumption [A]           |                   | 0.08 or less   |              |              |
| Input signal                    | current type [mA] | DC, 4 to 20, impedance ≤ 400 Ω   |              |              |
|                                 | voltage type [V]  | DC, 0 to 5, or 0 to 10, impedance approx. ≤ 50 kΩ  |              |              |
|                                 | preset input      | 4 points (one point should be set to zero due to safety reasons, combinations of 2 input signals), impedance approx. ≤ 1000 kΩ |              |              |
| Output signal                   | analog            | DC output current 4 to 20 mA (load impedance 750Ω or less), DC output voltage 1 to 5 V (load impedance 1kΩ or above)           |              |              |
|                                 | switch            | PNP or NPN output, max. voltage 24V DC, max. current 160 mA  |              |              |
| Linearity                       |                   | within ±1% F.S.  |              |              |
| Hysteresis                      |                   | within 0.5% F.S.   |              |              |
| Repeatability                   |                   | within ±0.5% F.S.  |              |              |
| Sensitivity                     |                   | within 0.2% F.S.   |              |              |
| Temperature characteristics     |                   | within ±0.2% F.S./°C   |              |              |
| Output pressure display         |                   | precision: ±2% F.S., ±1 digit, min. unit: 0.001 (MPa), 0.01 (bar, kg/cm <sup>2</sup> ), 0.1 (psi), 1 (kPa)                     |              |              |
| Enclosure                       |                   | equivalent to IP65   |              |              |
| Weight [kg]                     |                   | valve: 0.69, bracket: 0.086 (L type), 0.08 (flat type), connector with cable: 0.055 (1m), 0.13 (3m)                            |              |              |

## Order codes

PMAER300 10A 9K 2 3 1

| Port size |       | Pressure range |                  | Input signal |                 | Output signal |                         | Display unit |                    |
|-----------|-------|----------------|------------------|--------------|-----------------|---------------|-------------------------|--------------|--------------------|
| 8A        | G1/4" | 1K             | 0.005 to 0.1 MPa | 1            | current 4-20 mA | 1             | analog, voltage 1-5 V   | 1            | MPa                |
| 10A       | G3/8" | 5K             | 0.005 to 0.5 MPa | 2            | voltage 0-10 V  | 2             | switch, NPN             | 2            | kg/cm <sup>2</sup> |
| 15A       | G1/2" | 9K             | 0.009 to 0.9 MPa | 3            | voltage 0-5 V   | 3             | switch, PNP             | 3            | bar                |
|           |       |                |                  | 4            | 4 preset points | 4             | analog, current 4-20 mA | 4            | psi                |
|           |       |                |                  |              |                 | 0             | for input signal 4      | 5            | kPa                |

## Order codes - accessories

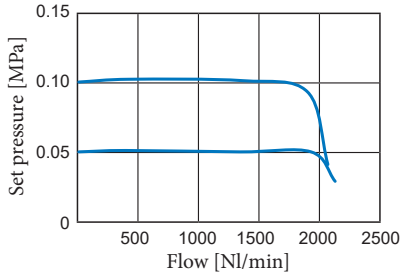
| Description       | Order code  | Description                   | Order code  | Description                 | Order code  |
|-------------------|-------------|-------------------------------|-------------|-----------------------------|-------------|
| L type bracket    | PMAER200-B1 | Straight connector, cable 1 m | PMAER200-S1 | L type connector, cable 1 m | PMAER200-L1 |
| Flat type bracket | PMAER200-B2 | Straight connector, cable 3 m | PMAER200-S3 | L type connector, cable 3 m | PMAER200-L3 |

## Capacity

### Flow rate

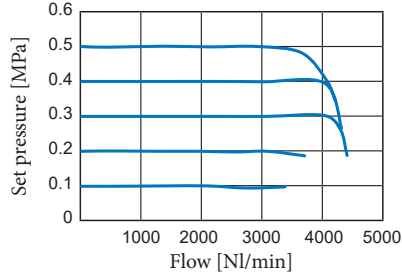
Pressure range 1K

Supply pressure 0.2 MPa



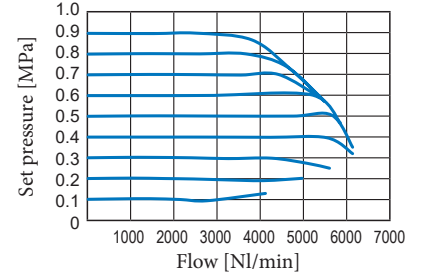
Pressure range 5K

Supply pressure 0.7 MPa



Pressure range 9K

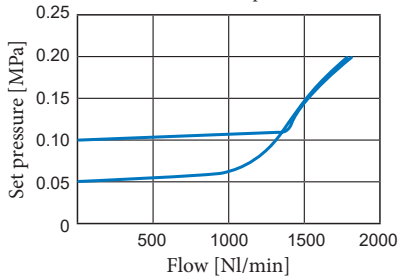
Supply pressure 1.0 MPa



### Relief flow rate

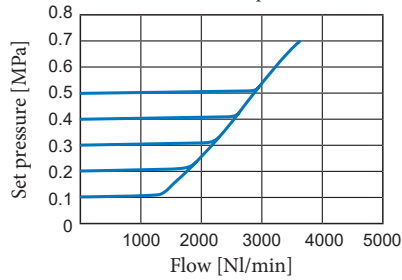
Pressure range 1K

Back pressure 0.2 MPa



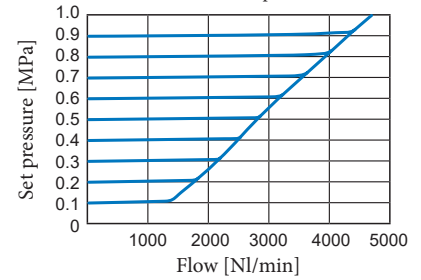
Pressure range 5K

Back pressure 0.7 MPa



Pressure range 9K

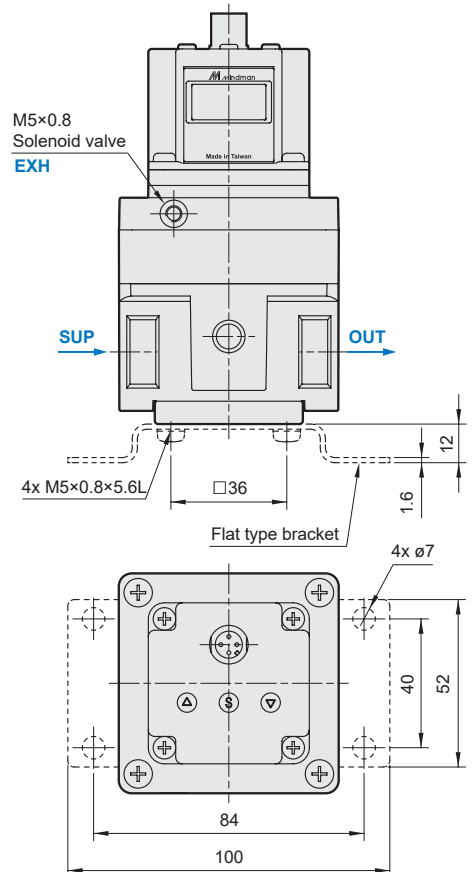
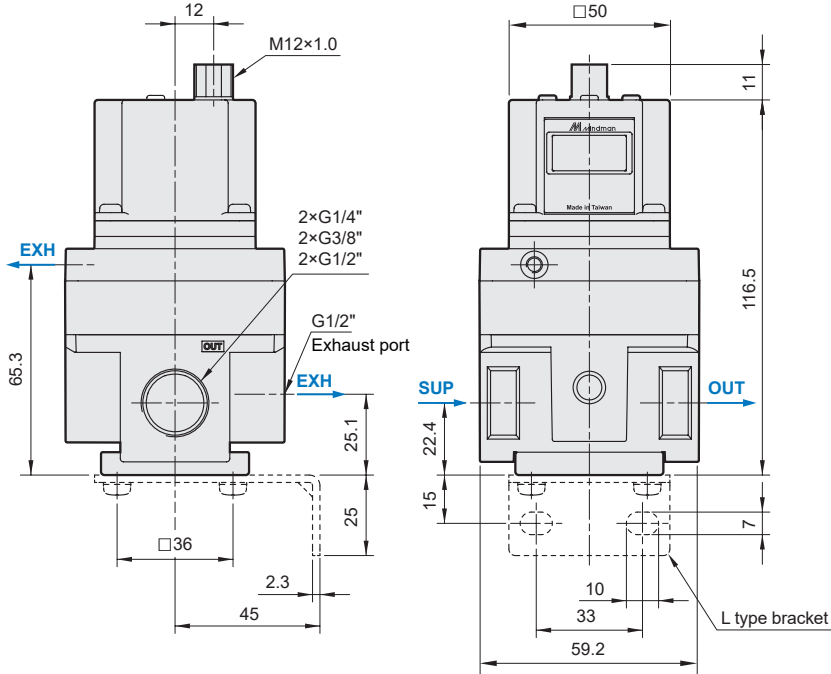
Back pressure 1.0 MPa



## Dimensions

MAER300 with L type bracket

MAER300 with flat type bracket



### Connectors

