



### Features

- Hysteresis adjustable.
- High accuracy and Resolution.
- Low cost.
- Pressure unit selectable: kPa, MPa, kgf/cm<sup>2</sup>, bar, psi, inHg, mmHg.

### Symbol



### Specification

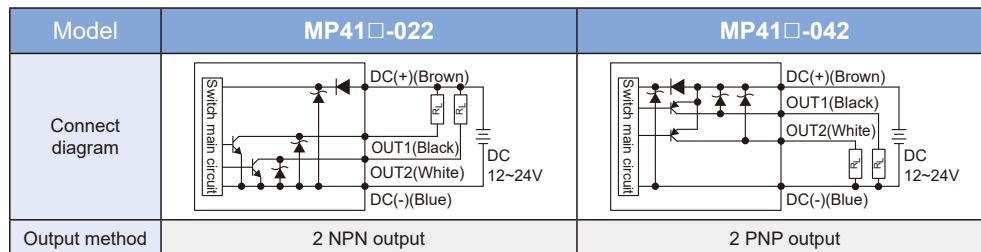
| Model                           |                           | MP41C (Compound)                                                                                       | MP41P (Positive) |
|---------------------------------|---------------------------|--------------------------------------------------------------------------------------------------------|------------------|
| Rated pressure range            |                           | — 100.0 ~ 100.0 kPa                                                                                    | 0.0 ~ 1.0 MPa    |
| Setting pressure range          |                           | — 101.0 ~ 101.0 kPa                                                                                    | — 0.1 ~ 1.0 MPa  |
| Withstand pressure              |                           | 300 kPa                                                                                                | 1.5 MPa          |
| Fluid                           |                           | Filtered air, Non-corrosive / Non-flammable gas                                                        |                  |
| Set pressure resolution         | kPa / MPa                 | 0.1 / —                                                                                                | — / 0.001        |
|                                 | kgf/cm <sup>2</sup> / bar | 0.001                                                                                                  | 0.01             |
|                                 | psi                       | 0.01                                                                                                   | 0.1              |
|                                 | inHg / mmHg               | 0.1 / 1                                                                                                | —                |
| Power supply voltage            |                           | 12 to 24V DC ±10%, Ripple (P-P) 10% or less                                                            |                  |
| Current consumption             |                           | ≤ 40mA (With no load)                                                                                  |                  |
| Switch output                   | Output type               | 2 NPN or 2 PNP open collector                                                                          |                  |
|                                 | Max. load current         | 125mA                                                                                                  |                  |
|                                 | Max. supply voltage       | 30V DC (at NPN output), 24V DC (at PNP output)                                                         |                  |
|                                 | Residual voltage          | ≤1.5V                                                                                                  |                  |
| Response time                   |                           | Chattering-proof function: 50ms, 250ms, 500ms, 1000ms, 2000ms, 3000ms selections                       |                  |
| Output short circuit protection |                           | Yes                                                                                                    |                  |
| Display                         | LCD display               | 3½ digital, 7 segment LCD display (Red / Green / Orange) (Sampling rate: 5 times/sec.)                 |                  |
|                                 | Switch on indicator       | Orange indicator 1 : OUT1 & Orange indicator 2 : OUT2                                                  |                  |
|                                 | Updates time              | Adjustable                                                                                             |                  |
|                                 | Indicator accuracy        | ±2% F.S. ±1 digit (ambient temperature: 25 ± 3°C)                                                      |                  |
| Repeatability (Switch output)   |                           | ± 0.2% F.S. ±1digit                                                                                    |                  |
| Environment                     | Enclosure                 | IP40                                                                                                   |                  |
|                                 | Ambient temp. range       | Operation: 0 ~ 50°C, storage : — 10 ~ 60°C ( No condensation or freezing)                              |                  |
|                                 | Ambient humidity range    | 35 ~ 85% RH (No condensation)                                                                          |                  |
|                                 | Withstand voltage         | 1000V AC in 1-min. (between case and lead wire)                                                        |                  |
|                                 | Insulation resistance     | 50M Ω min. (at 500V DC, between case and lead wire)                                                    |                  |
|                                 | Vibration                 | Total amplitude 1.5mm or 10G, 10Hz-150Hz-10Hz scan for 1 minute, two hours each direction of X,Y and Z |                  |
|                                 | Shock                     | 100m/s <sup>2</sup> (10G), 3 times each in direction of X,Y and Z                                      |                  |
| Temperature characteristic      |                           | ±2% F.S. of detected pressure (25°C) at temp. Range of 0~50°C                                          |                  |
| Lead wire                       |                           | ø4 Oil-resistance cable (PVC) - 26 AWG (0.15mm <sup>2</sup> ) - 4 cores                                |                  |
| Weight                          |                           | Approx. 65 g (with 2 meter lead wire), Approx. 30g (with male connector )                              |                  |

# MP41 Order example

## HIGH PRECISION DIGITAL PRESSURE SWITCH

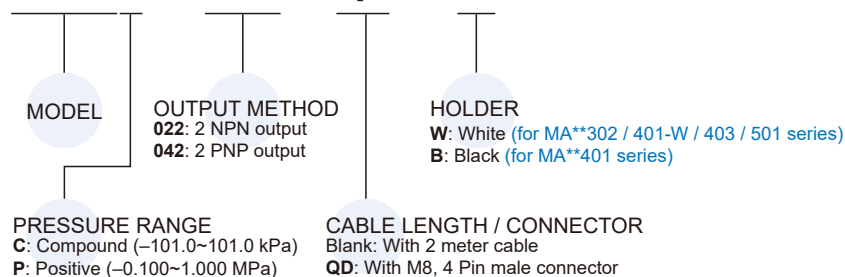


### Output circuit wiring graph

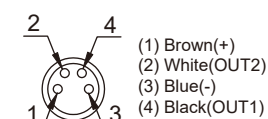


### Order example

**MP41P – 022 – QD – W**



#### QD Pinout



### Mounting accessories (Option)

**MP – D1**

**MODEL**

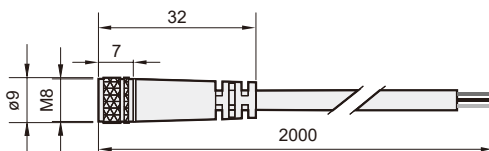
**OPTION PARTS**

D1: M8, 4 Pin female connector (M84R-W0085-2M)

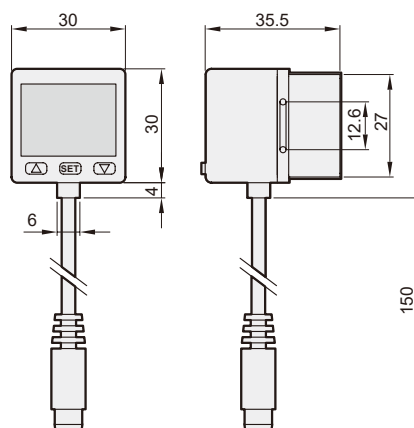


#### MP-D1

M8, 4 Pin female connector



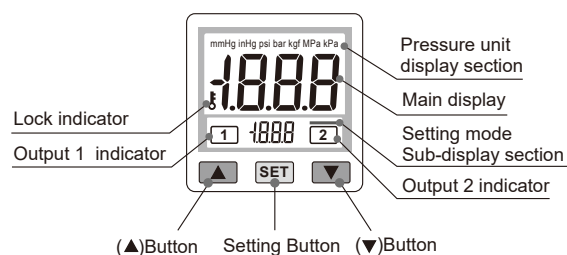
### Dimensions



### Applicable model

| Series     | 302 / 403 / 501     | 401      |
|------------|---------------------|----------|
| F.R.L.Unit | MACP302 / 403 / 501 | MACP401  |
| F.R.L.Unit | MACT302 / 403 / 501 | MACT401  |
| F.R.Unit   | MAFR302 / 403 / 501 | MAFR401  |
| R. Unit    | MAR302 / 403 / 501  | MAR401   |
| F.R.Unit   | —                   | MAFRF401 |
| F.R.Unit   | —                   | MATFR401 |

### Panel instructions



# MP41 With MA\*\*302

## HIGH PRECISION DIGITAL PRESSURE SWITCH



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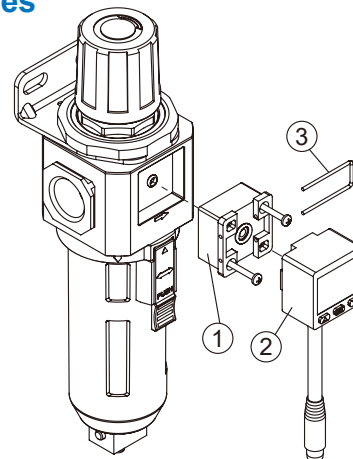


### Mounting procedures

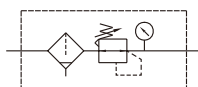
1. Fix the holder.
2. Assembly the digital pressure switch.
3. Button the n-ring.

### Order example of sensor holder set

| Model    | Description                  |
|----------|------------------------------|
| A-MP41-W | White. Include part ① and ③. |



### Symbol



### Order example

MAFR302 — 8A — □□□ — E1 — □ — G

MODEL  
MACP302  
MACT302  
MAFR302  
MAR302

PORT SIZE  
8A: 1/4  
10A: 3/8  
15A: 1/2

PRESSURE SWITCH  
E1: MP41P-022  
E2: MP41P-022-QD  
E5: MP41P-042  
E6: MP41P-042-QD

(\*) FILTER ELEMENT  
Blank: 5μm  
40u: 40μm

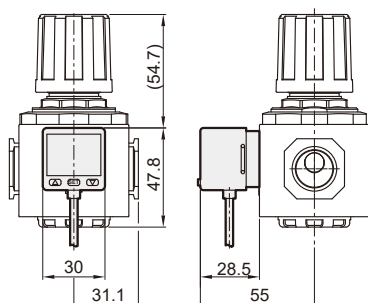
PORT THREAD  
Blank: Rc thread  
G: G thread  
NPT: NPT thread

(Option) ACCESSORIES

| Bowl                                             | Drain valve (*)                                         | Flow direction                                 |
|--------------------------------------------------|---------------------------------------------------------|------------------------------------------------|
| Blank: PC bowl<br>M: Metal bowl<br>N: Nylon bowl | Blank: Semi-auto drain<br>D: Auto drain valve (FMRF300) | Blank:<br>Left to right<br>R:<br>Right to left |

\* Not applicable to MAR302

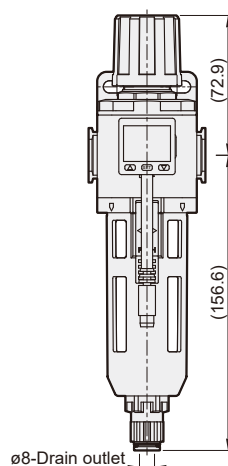
### MAR302



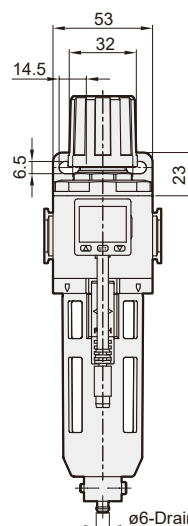
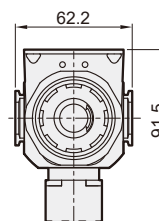
### MAFR302

#### MAFR302-D

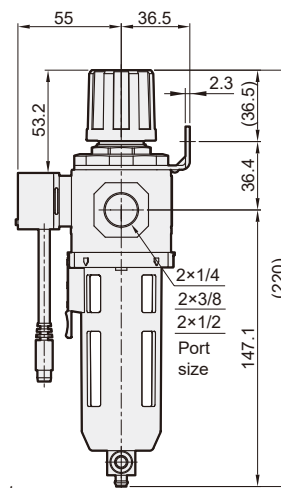
Auto drain valve  
Operating pressure range  
0.15~1 MPa



ø8-Drain outlet



ø6-Drain outlet



# MP41 With MA\*\*401

## HIGH PRECISION DIGITAL PRESSURE SWITCH



Mindman

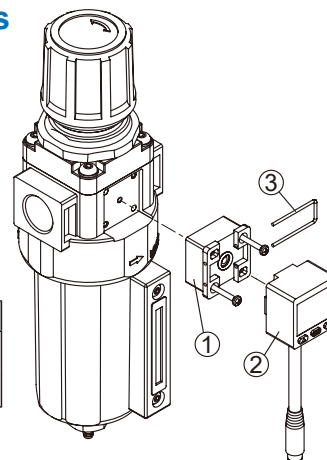


### Mounting procedures

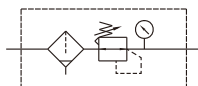
1. Fix the holder.
2. Assembly the digital pressure switch.
3. Button the n-ring.

### Order example of sensor holder set

| Model    | Description |                       |
|----------|-------------|-----------------------|
| A-MP41-W | White       | Include part ① and ③. |
| A-MP41-B | Black       |                       |



### Symbol



### Order example

MAFR401 — 8A — □ — □□□ — E1 — □ — □ — G

MODEL  
MACP401  
MACT401  
MAFR401  
MAR401

EXTERIOR  
COLOR  
Blank: Black & Silver  
W: Gray & white

PRESSURE SWITCH  
E1: MP41P-022  
E2: MP41P-022-QD  
E5: MP41P-042  
E6: MP41P-042-QD

(\*) FILTER  
ELEMENT  
Blank: 40µm  
5u: 5µm

(Option)  
BRACKET  
Blank: Without  
B2: Screw fixed  
(MAFR, MAR only)

PORT THREAD  
Blank: Rc thread  
G: G thread  
NPT: NPT thread

PORT SIZE (Option) ACCESSORIES

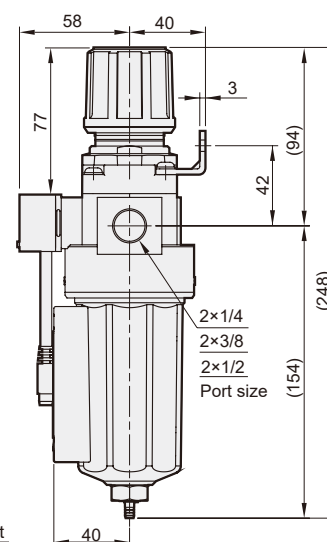
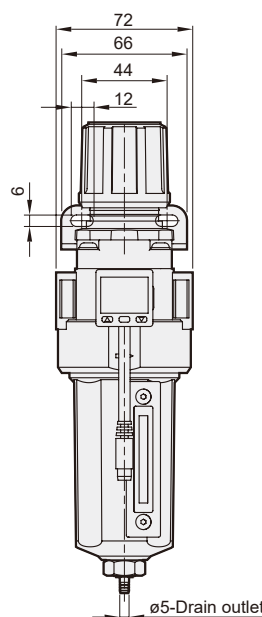
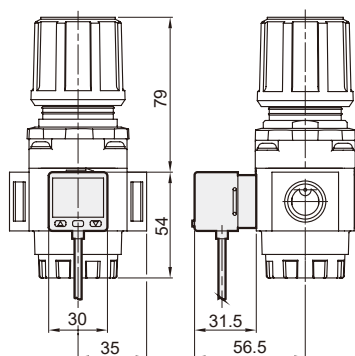
8A: 1/4  
10A: 3/8  
15A: 1/2

| Bowl                 | Drain valve (*)                                         | Flow direction                              |
|----------------------|---------------------------------------------------------|---------------------------------------------|
| Blank:<br>Metal bowl | Blank: Semi-auto drain<br>D: Auto drain valve (FMRF300) | Blank:<br>Left to right<br>R: Right to left |

\* Not applicable to MAR401

MAFR401

MAR401



# MP41 With MA\*\*403

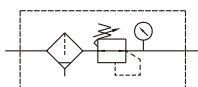
## HIGH PRECISION DIGITAL PRESSURE SWITCH



Mindman



### Symbol

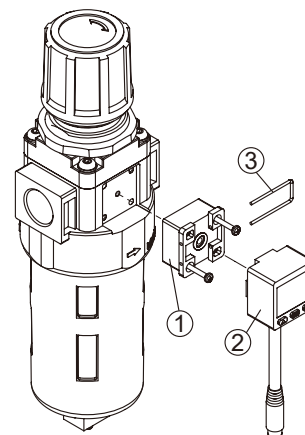


### Mounting procedures

1. Fix the holder.
2. Assembly the digital pressure switch.
3. Button the n-ring.

### Order example of sensor holder set

| Model    | Description                  |
|----------|------------------------------|
| A-MP41-W | White. Include part ① and ③. |



### Order example

MAFR403 — 8A — □□□ — E1 — □ — □ — G

MODEL  
MACP403  
MACT403  
MAFR403  
MAR403

PORT SIZE  
8A: 1/4  
10A: 3/8  
15A: 1/2

PRESSURE SWITCH  
E1: MP41P-022  
E2: MP41P-022-QD  
E5: MP41P-042  
E6: MP41P-042-QD

(\*) FILTER ELEMENT  
Blank: 40μm  
5u: 5μm  
(Option) BRACKET  
Blank: Without  
B2: Screw fixed (MAFR, MAR only)

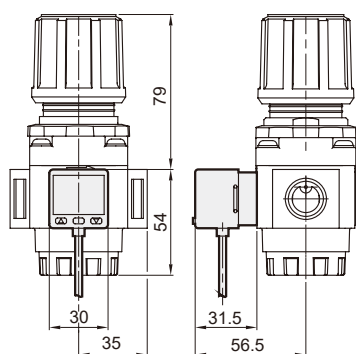
PORT THREAD  
Blank: Rc thread  
G: G thread  
NPT: NPT thread

#### (Option) ACCESSORIES

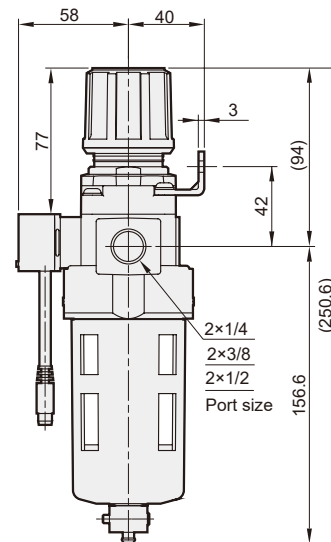
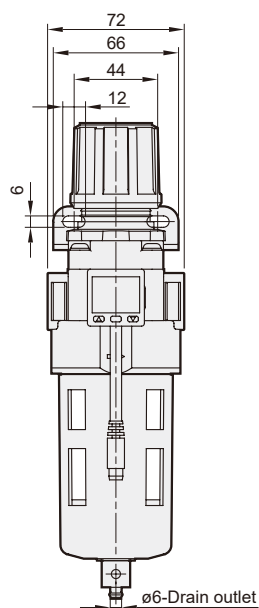
| Bowl                            | Drain valve (*)                                         | Flow direction                                 |
|---------------------------------|---------------------------------------------------------|------------------------------------------------|
| Blank: PC bowl<br>N: Nylon bowl | Blank: Semi-auto drain<br>D: Auto drain valve (FMRF300) | Blank:<br>Left to right<br>R:<br>Right to left |

\* Not applicable to MAR403

### MAR403



### MAFR403



# MP41 With MA\*\*501

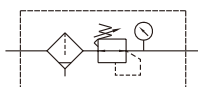
HIGH PRECISION DIGITAL PRESSURE SWITCH



Mindman



## Symbol

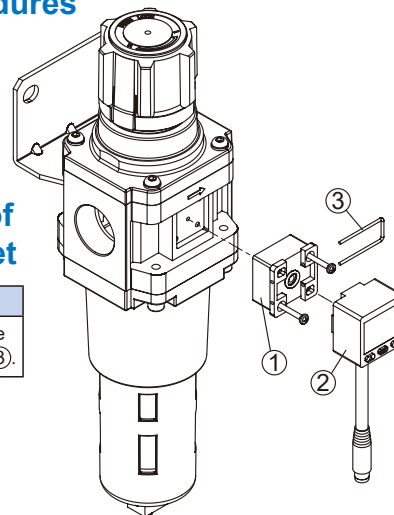


## Mounting procedures

1. Fix the holder.
2. Assembly the digital pressure switch.
3. Button the n-ring.

## Order example of sensor holder set

| Model    | Description                  |
|----------|------------------------------|
| A-MP41-W | White. Include part ① and ③. |



## Order example

MAFR501 — 8A — □□□ — E1 — G

### MODEL

MACP501  
MACT501  
MAFR501  
MAR501

### PORT SIZE

20A: 3/4  
25A: 1

### (Option) ACCESSORIES

| Bowl                                             | Drain valve                                                                           | Flow direction                                 |
|--------------------------------------------------|---------------------------------------------------------------------------------------|------------------------------------------------|
| Blank: PC bowl<br>M: Metal bowl<br>N: Nylon bowl | Blank: Semi-auto drain<br>D: Auto drain valve (FMRF300)<br>* Not applicable to MAR501 | Blank:<br>Left to right<br>R:<br>Right to left |

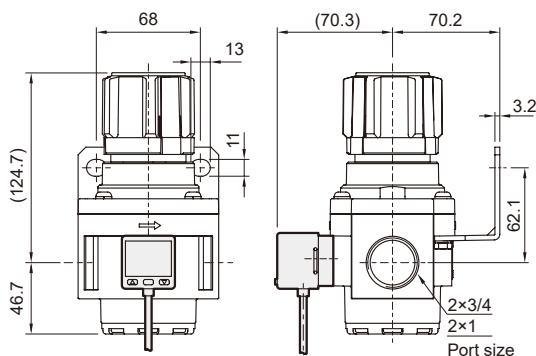
### PRESSURE SWITCH

E1: MP41P-022  
E2: MP41P-022-QD  
E5: MP41P-042  
E6: MP41P-042-QD

### PORT THREAD

Blank: Rc thread  
G: G thread  
NPT: NPT thread

## MAR501



## MAFR501

