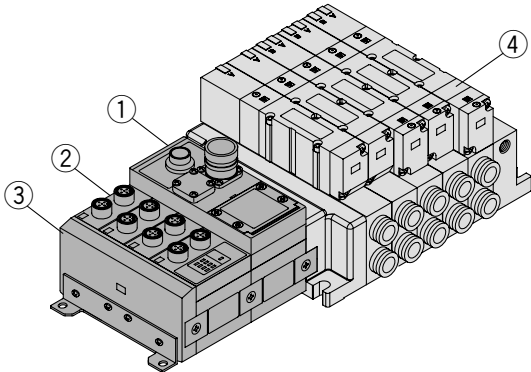


Integrated Type/ For Input/Output Series **EX240**

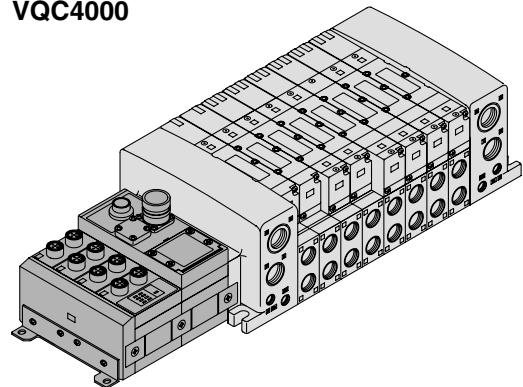


- ★ Enclosure IP65
- ★ Maximum 32 inputs/32 outputs
- ★ Connection of sensors with M12 connectors is possible

VQ2000/4000



VQC4000



| No. | Type | Function |
|-----|-------------------|---|
| 1 | SI unit | Compatible with various field buses |
| 2 | DI unit | Connection of sensors with M12 connectors, Max. 8 inputs/unit |
| 3 | End case assembly | Direct mounting, DIN rail mounting |
| 4 | Manifold valve | Max. 32 points actuation |

EX

How to Order

SI unit

EX240-S DN2

• Communication protocol

| | |
|-----|-------------|
| DN2 | DeviceNet |
| PR1 | PROFIBUS DP |

Note) Please consult SMC for the applicable networks other than the above.

End case assembly

EX240-EA 2

• Mounting specifications

| | |
|---|--|
| 2 | Direct mounting |
| 3 | DIN rail mounting (For VQ valves) |
| 4 | Without mounting holes (Without DI unit) |

DI unit

EX240-IE1

How to Order Option

Cable with connector

This is a cable to supply power to the SI unit.

EX240-AC30

| | |
|--------------|-----|
| Cable length | 3 m |
|--------------|-----|

Series EX240

SI Unit Specifications

| Model | | EX240-SDN2 | EX240-SPR1 |
|-------------------------------------|---|---|--|
| Communication specification | Applicable system | DeviceNet | PROFIBUS DP |
| | Protocol Version ^{Note 1)} | Release 2.0 | DP-V0 |
| | Communication speed | 125 k/250 k/500 kbps | 9.6 k/19.2 k/93.75 k/187.5 k/500 kbps 1.5 M/3 M/6 M/12 Mbps |
| | Specified file ^{Note 2)} | EDS file | GSD file |
| | Occupied area (Number of inputs/outputs) | 32/32 | |
| Terminal resistor | Not applicable | | |
| Power supply | For unit | 11 to 25 VDC | 24 VDC±20% |
| | For sensors | 24 VDC±20% | |
| | For valve | 24 VDC+10%/−5% | 24 VDC+10%/−5% |
| Internal current consumption (Unit) | 100 mA or less | 200 mA or less | |
| Input specification | Number of inputs | 32 points (According to the number of DI unit connection) | |
| | Supply voltage | 24 VDC | |
| | Supply current | 2.0 A or less | |
| Output specification | Output type | NPN output (+COM.) | PNP (−COM.) |
| | Number of outputs | 32 points | |
| | Connection load | SMC: Solenoid valve with light/surge voltage suppressor (24 VDC, 2.1 W or less) | |
| | Supply voltage | 24 VDC | |
| | Supply current | 3.2 A or less | |
| | Output when communication error occurs | Hold/Clear (Switch setting) | Clear |
| Environmental resistance | Enclosure | IP65 | |
| | Operating temperature range | 5 to 45°C | |
| | Operating humidity range | 35 to 85%RH (With no condensation) | |
| | Withstand voltage | 1500 VAC for 1 min. between external terminals and FG | |
| | Insulation resistance | 10 MΩ or more (500 VDC) between external terminals and FG | |
| | Vibration resistance | 10 to 150 Hz with a 0.35 mm amplitude or 49 m/s ² in each X, Y, Z direction for 2 hrs (De-energized) | |
| | Impact resistance | 147 m/s ² , in each X, Y, Z direction, 3 times (De-energized) | |
| Standard | CE marking | | |
| Accessory ^{Note 3)} | Modular adopter assembly 2 pcs., Joint assembly 1 pc. | | |

Note 1) Please note that the version is subject to change

Note 2) Each file can be downloaded from SMC's website (<http://www.smcworld.com/>).

Note 3) When the SI unit is mounted to the manifold when shipped, accessories are shipped together with it.

Note 4) For detailed specifications other than the above, refer to the separate technical operation manual that can be downloaded from SMC's website (<http://www.smcworld.com/>).

DI Unit Specifications

| Model | | EX240-IE1 |
|------------------------------|--|--|
| Input specification | Input type | PNP/NPN sensor input (switched using a switch) |
| | Number of inputs | 8 points |
| | Input device supply voltage | 24 VDC |
| | Input device supply current | Max. 60 mA/point, 500 mA/unit ^{Note 1)} |
| | Rated input current | Approx. 8 mA |
| | Display | Green LED (Illuminated when the power supply for the SI unit sensor is applied), Yellow LED (Illuminated when the input signal is turned on.) |
| | Connector on the input device side | M12 connector (4 pins, plug or 5 pins, plug) |
| Environmental resistance | Enclosure | IP65 |
| | Operating temperature range | 5 to 45°C |
| | Operating humidity range | 35 to 85%RH (With no condensation) |
| | Withstand voltage | 1500 VAC for 1 min. between external terminals and FG |
| | Insulation resistance | 10 MΩ or more (500 VDC) between external terminals and FG |
| | Vibration resistance | 10 to 150 Hz with a 0.35 mm amplitude or 49 m/s ² in each X, Y, Z direction for 2 hrs (De-energized) |
| Impact resistance | 147 m/s ² , in each X, Y, Z direction, 3 times (De-energized) | |
| Standard | CE marking | |
| Accessory ^{Note 2)} | Modular adopter assembly 2 pcs., Joint assembly 1 pc. | |

Note 1) Short circuit protection works at 600 mA per each DI unit, and sensor power supply stops.

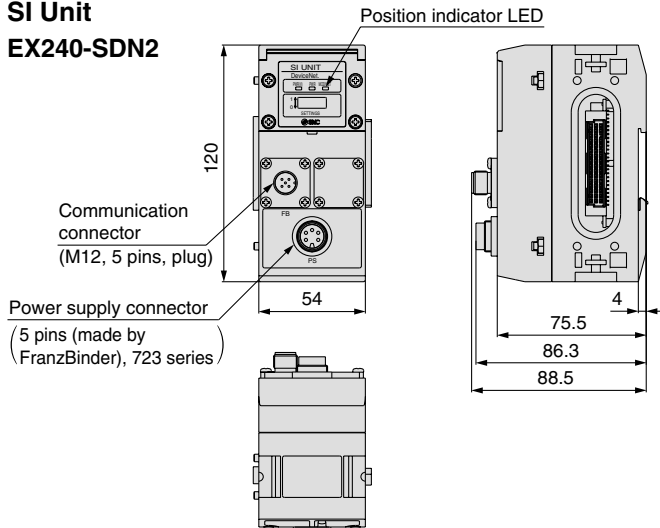
Note 2) When the DI unit is mounted to the manifold when shipped, accessories are shipped together with it.

Note 3) For detailed specifications other than the above, refer to the separate technical operation manual that can be downloaded from SMC's website (<http://www.smcworld.com/>).

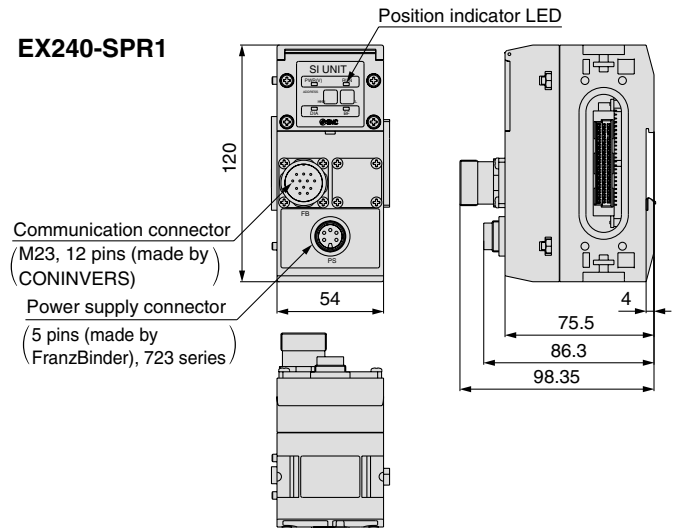
Dimensions

SI Unit

EX240-SDN2

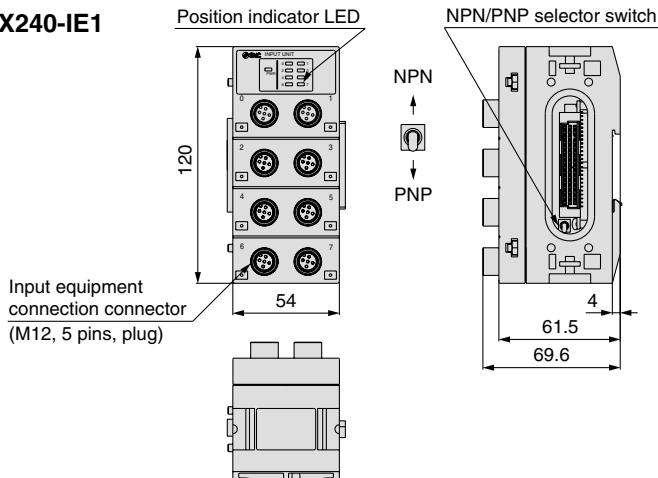


EX240-SPR1



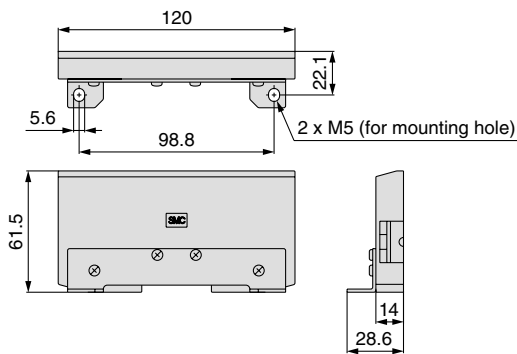
DI Unit

EX240-IE1

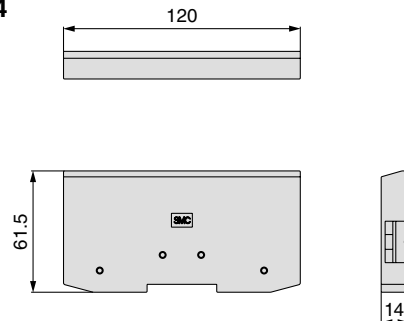


End Case Assembly

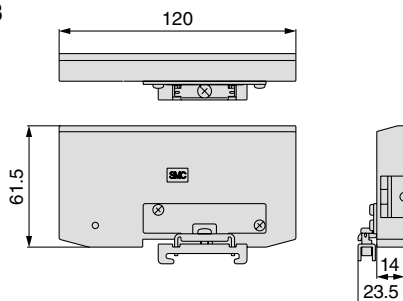
EX240-EA2



EX240-EA4



EX240-EA3



EX