



Direct solenoid and solenoid pilot operated valves 10 mm valve

| | | | |
|-----------------|-------------------|-----------------------------------|----------------------------|
| Function | Port size | Flow [Max] / [Cv / NI/min] | Individual mounting |
| 5/2, 5/3 | M5, #10-32 | 0.25 / 250 | Inline |

OPERATIONAL BENEFITS

1. 10 mm valve – solenoid pilot operated.
2. Balanced spool, immune to variations of pressure.
3. Bonded spool with minimal friction.
4. Wiping effect, eliminates sticking.
5. Pilot valve with balanced poppet, high flow, short and consistent response times



HOW TO ORDER

SINGLE PRESSURE MODELS

| Port size | Pilot air | 5/2 Single solenoid | 5/2 Double solenoid | 5/3 Closed Center | 5/3 Open Center |
|---------------|-----------|-------------------------|-------------------------|-------------------------|-------------------------|
| | | | | | |
| #10-32 | Internal | 24A-A1-A00-Exx-Rxxx-xxx | 24A-B1-A00-Exx-Rxxx-xxx | 24A-E1-A00-Exx-Rxxx-xxx | 24A-F1-A00-Exx-Rxxx-xxx |
| | External | 24A-A4-A00-Exx-Rxxx-xxx | 24A-B4-A00-Exx-Rxxx-xxx | 24A-E4-A00-Exx-Rxxx-xxx | 24A-F4-A00-Exx-Rxxx-xxx |
| M5 | Internal | 24A-A1-B00-Exx-Rxxx-xxx | 24A-B1-B00-Exx-Rxxx-xxx | 24A-E1-B00-Exx-Rxxx-xxx | 24A-F1-B00-Exx-Rxxx-xxx |
| | External | 24A-A4-B00-Exx-Rxxx-xxx | 24A-B4-B00-Exx-Rxxx-xxx | 24A-E4-B00-Exx-Rxxx-xxx | 24A-F4-B00-Exx-Rxxx-xxx |

DUAL PRESSURE MODELS (Internal pilot only)

| Port size | Pilot air | 5/2 Single solenoid | 5/2 Double solenoid | 5/3 Pressure Center |
|---------------|-----------------------|-------------------------|-------------------------|-------------------------|
| | | | | |
| #10-32 | Internal from port #3 | 24A-C2-A00-Exx-Rxxx-xxx | 24A-D2-A00-Exx-Rxxx-xxx | 24A-G2-A00-Exx-Rxxx-xxx |
| | Internal from port #5 | 24A-C3-A00-Exx-Rxxx-xxx | 24A-D3-A00-Exx-Rxxx-xxx | 24A-G3-A00-Exx-Rxxx-xxx |
| M5 | Internal from port #3 | 24A-C2-B00-Exx-Rxxx-xxx | 24A-D2-B00-Exx-Rxxx-xxx | 24A-G2-B00-Exx-Rxxx-xxx |
| | Internal from port #5 | 24A-C3-B00-Exx-Rxxx-xxx | 24A-D3-B00-Exx-Rxxx-xxx | 24A-G3-B00-Exx-Rxxx-xxx |

SOLENOID OPERATOR

E XX - R XX X - X XX

| XX Pilot type | XX Voltage | X Lead wire length | X Manual operator | XX Electrical connector |
|---|--|---|---|---|
| M2 Muffled exhaust P2 Piped exhaust (M3) | DB 24VDC (1.0W) DC 24VDC (1.8W) DD 24VDC (2.5W) DF 24VDC (4.0W) DH 12VDC (1.0W) DJ 12VDC (1.8W) DK 12VDC (2.5W) DM 12VDC (4.0W) | O* No lead wire A 18" / 45 cm B 24" / 60 cm C 36" / 90 cm <small>* Not available for flying lead connectors</small> | 0 No manual operator 1 Recessed non locking 3 Extended non locking | BA Flying leads BB Flying leads w/ LED RA Mini JAC solenoid plug-in RB Mini JAC sol. plug-in w/ LED TA JST solenoid plug-in TB JST sol. plug-in w/ LED |

Note : For pilot exhaust out main exhaust mod. 0353 is required

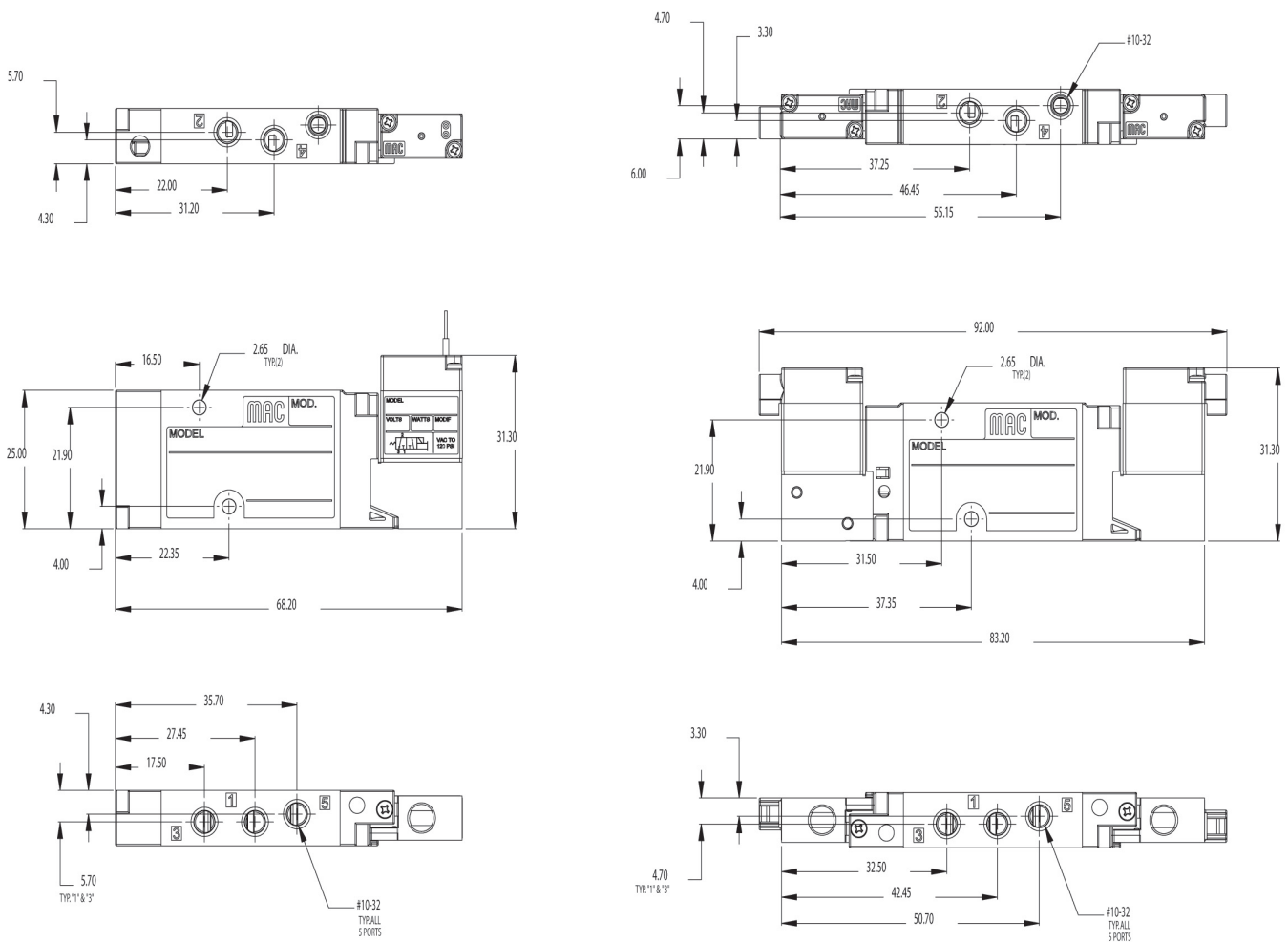
Direct solenoid and solenoid pilot operated valves 10 mm valve

TECHNICAL DATA

| | |
|-----------------|--|
| Fluids: | Compressed air, vacuum, inert gases |
| Pressure range: | 2 position internal pilot: Single solenoid: 30 to 120 psi / 2 to 8 bar Double solenoid: 20 to 120 psi / 1.3 to 8 bar 2/3 position external pilot: vacuum to 120 psi / 8 bar 3 position internal pilot: 40 to 120 psi / 2.7 to 8 bar |
| Lubrication: | Not required, if used select a medium aniline point lubricant (between 180°F and 210°F / 80°C and 100°C) |
| Filtration: | 40µ |
| Flow: | 0.25 Cv / 250 NI/min |
| Coil: | Class A (#26 AWG x 18), continuous duty |
| Voltage range: | -15% to +10% of nominal voltage |
| Power | 4.0W, 3.0W, 2.5W, 1.8W, 1.0W |

DIMENSIONS

Dimensions shown are metric

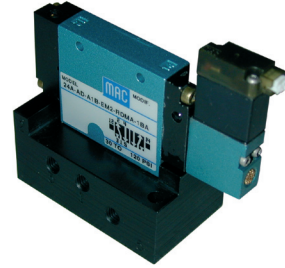


Direct solenoid and solenoid pilot operated valves 10 mm valve

| | | | |
|-----------------|-----------------------|---------------------------------|-----------------------------|
| Function | Port size | Flow [Max]/[Cv / NI/min] | Individual mounting |
| 5/2, 5/3 | M5, #10-32, M7 | 0.37 / 370 | Sub-base non plug-in |

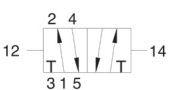
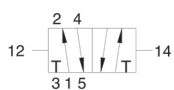
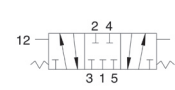
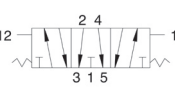
OPERATIONAL BENEFITS

1. 10 mm valve – solenoid pilot operated.
2. Balanced spool, immune to variations of pressure.
3. Bonded spool with minimal friction.
4. Wiping effect, eliminates sticking.
5. Pilot valve with balanced poppet, high flow, short and consistent response times

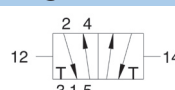
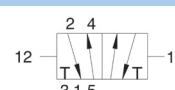
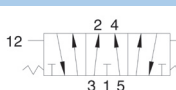


HOW TO ORDER

SINGLE PRESSURE MODELS (Side ports)

| Port size | Pilot air | 5/2 Single solenoid | 5/2 Double solenoid | 5/3 Closed Center | 5/3 Open Center |
|-------------------|-----------|---|---|--|---|
| | |  |  |  |  |
| Valve only | Internal | 24A-AD-000-Exx-Rxxx-xxx | 24A-BD-000-Exx-Rxxx-xxx | 24A-ED-000-Exx-Rxxx-xxx | 24A-FD-000-Exx-Rxxx-xxx |
| | External | 24A-AE-000-Exx-Rxxx-xxx | 24A-BE-000-Exx-Rxxx-xxx | 24A-EE-000-Exx-Rxxx-xxx | 24A-FE-000-Exx-Rxxx-xxx |
| #10-32 | Internal | 24A-AD-A1B-Exx-Rxxx-xxx | 24A-BD-A1B-Exx-Rxxx-xxx | 24A-ED-A1B-Exx-Rxxx-xxx | 24A-FD-A1B-Exx-Rxxx-xxx |
| | External | 24A-AE-A1B-Exx-Rxxx-xxx | 24A-BE-A1B-Exx-Rxxx-xxx | 24A-EE-A1B-Exx-Rxxx-xxx | 24A-FE-A1B-Exx-Rxxx-xxx |
| M5 | Internal | 24A-AD-B1B-Exx-Rxxx-xxx | 24A-BD-B1B-Exx-Rxxx-xxx | 24A-ED-B1B-Exx-Rxxx-xxx | 24A-FD-B1B-Exx-Rxxx-xxx |
| | External | 24A-AE-B1B-Exx-Rxxx-xxx | 24A-BE-B1B-Exx-Rxxx-xxx | 24A-EE-B1B-Exx-Rxxx-xxx | 24A-FE-B1B-Exx-Rxxx-xxx |
| M7 | Internal | 24A-AD-C1B-Exx-Rxxx-xxx | 24A-BD-C1B-Exx-Rxxx-xxx | 24A-ED-C1B-Exx-Rxxx-xxx | 24A-FD-C1B-Exx-Rxxx-xxx |
| | External | 24A-AE-C1B-Exx-Rxxx-xxx | 24A-BE-C1B-Exx-Rxxx-xxx | 24A-EE-C1B-Exx-Rxxx-xxx | 24A-FE-C1B-Exx-Rxxx-xxx |

DUAL PRESSURE MODELS (Internal pilot only – Side ports)

| Port size | Pilot air | 5/2 Single solenoid | 5/2 Double solenoid | 5/3 Pressure Center |
|-------------------|-----------------------|---|--|---|
| | |  |  |  |
| Valve only | Internal from port #3 | 24A-CJ-000-Exx-Rxxx-xxx | 24A-DJ-000-Exx-Rxxx-xxx | 24A-GJ-000-Exx-Rxxx-xxx |
| | Internal from port #5 | 24A-CK-000-Exx-Rxxx-xxx | 24A-DK-000-Exx-Rxxx-xxx | 24A-GK-000-Exx-Rxxx-xxx |
| #10-32 | Internal from port #3 | 24A-CJ-A1B-Exx-Rxxx-xxx | 24A-DJ-A1B-Exx-Rxxx-xxx | 24A-GJ-A1B-Exx-Rxxx-xxx |
| | Internal from port #5 | 24A-CK-A1B-Exx-Rxxx-xxx | 24A-DK-A1B-Exx-Rxxx-xxx | 24A-GK-A1B-Exx-Rxxx-xxx |
| M5 | Internal from port #3 | 24A-CJ-B1B-Exx-Rxxx-xxx | 24A-DJ-B1B-Exx-Rxxx-xxx | 24A-GJ-B1B-Exx-Rxxx-xxx |
| | Internal from port #5 | 24A-CK-B1B-Exx-Rxxx-xxx | 24A-DK-B1B-Exx-Rxxx-xxx | 24A-GK-B1B-Exx-Rxxx-xxx |
| M7 | Internal from port #3 | 24A-CJ-C1B-Exx-Rxxx-xxx | 24A-DJ-C1B-Exx-Rxxx-xxx | 24A-GJ-C1B-Exx-Rxxx-xxx |
| | Internal from port #5 | 24A-CK-C1B-Exx-Rxxx-xxx | 24A-DK-C1B-Exx-Rxxx-xxx | 24A-GK-C1B-Exx-Rxxx-xxx |

SOLENOID OPERATOR

E XX - R XX X - X XX

| XX Pilot type | XX Voltage | X Lead wire length | X Manual operator | XX Electrical connector |
|---|--|--|---|---|
| M2 Muffled exhaust P2 Piped exhaust (M3) | DB 24VDC (1.0W) DC 24VDC (1.8W) DD 24VDC (2.5W) DF 24VDC (4.0W) DH 12VDC (1.0W) DJ 12VDC (1.8W) DK 12VDC (2.5W) DM 12VDC (4.0W) | O* No lead wire A 18" / 45 cm B 24" / 60 cm C 36" / 90 cm * Not available for flying lead connectors | 0 No manual operator 1 Recessed non locking 3 Extended non locking | BA Flying leads BB Flying leads w/ LED RA Mini JAC solenoid plug-in RB Mini JAC sol. plug-in w/ LED TA JST solenoid plug-in TB JST sol. plug-in w/ LED |

OPTIONS

24A-XX-X **X** X-Exx-Rxxx-xxx
1 Individual base – Side ports
2 Individual base – Bottom ports (no side ports)

Note : For pilot exhaust out main exhaust mod. 0353 is required

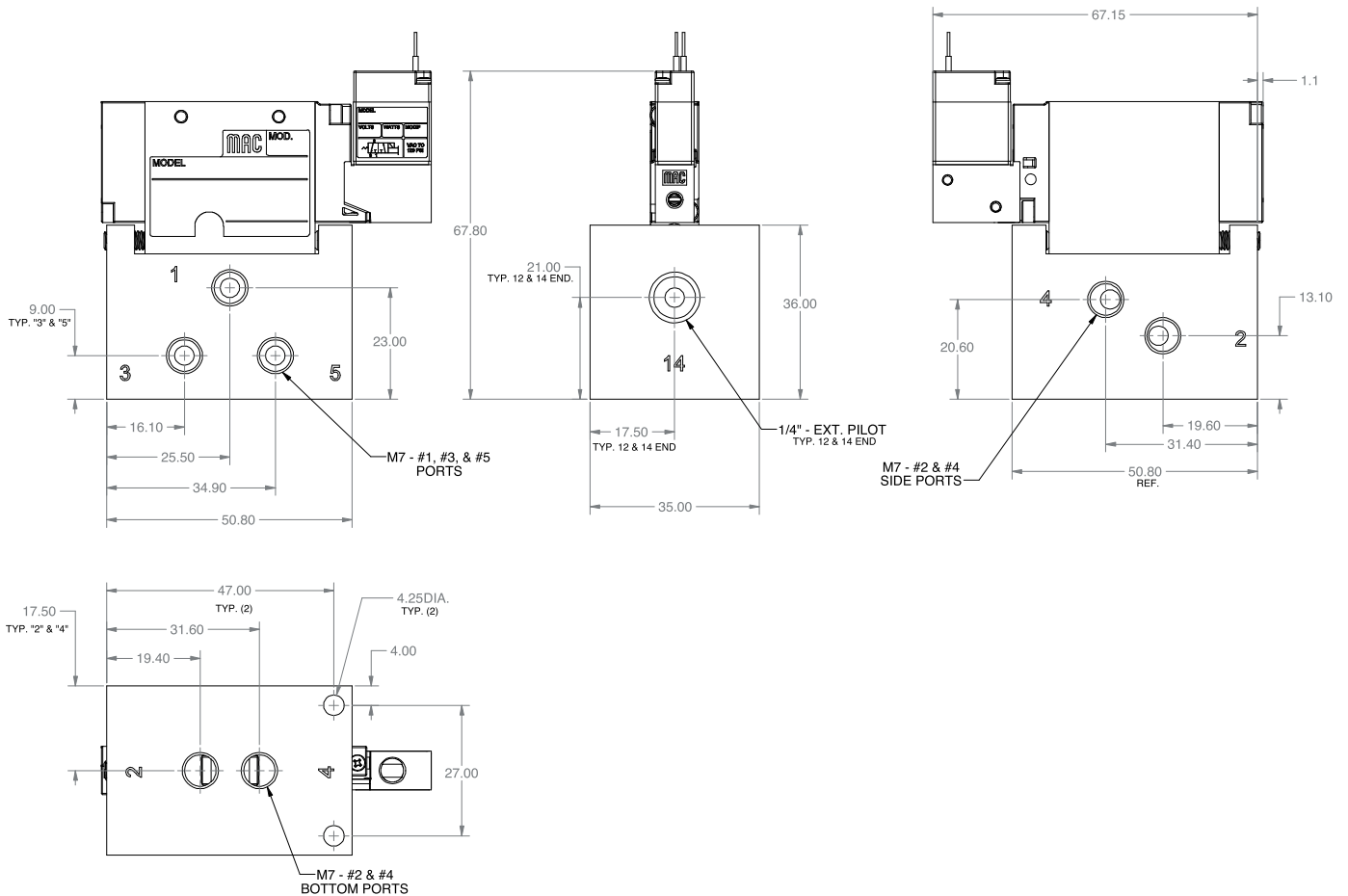
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TECHNICAL DATA

| | |
|-----------------|--|
| Fluids: | Compressed air, vacuum, inert gases |
| Pressure range: | 2 position internal pilot: Single solenoid: 30 to 120 psi / 2 to 8 bar Double solenoid: 20 to 120 psi / 1,3 to 8 bar 2/3 position external pilot: vacuum to 120 psi / 8 bar 3 position internal pilot: 40 to 120 psi / 2,7 to 8 bar |
| Lubrication: | Not required, if used select a medium aniline point lubricant (between 180°F and 210°F / 80°C to 100°C) |
| Filtration: | 40µ |
| Flow: | 0.37 Cv / 370 NI/min |
| Coil: | Class A (#26 AWG x 18), continuous duty |
| Voltage range: | -15% to +10% of nominal voltage |
| Power | 4.0W, 3.0W, 2.5W, 1.8W, 1.0W |

DIMENSIONS

Dimensions shown are metric



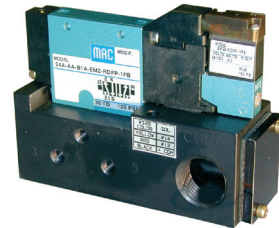


Direct solenoid and solenoid pilot operated valves 10 mm valve

| | | | |
|-----------------|-----------------------|-----------------------------------|----------------------------|
| Function | Port size | Flow [Max] / [Cv / NI/min] | Individual mounting |
| 5/2, 5/3 | M5, #10-32, M7 | 0.37 / 370 | Sub-base plug-in |

OPERATIONAL BENEFITS

- 10 mm valve – solenoid pilot operated.
- Balanced spool, immune to variations of pressure.
- Bonded spool with minimal friction.
- Wiping effect, eliminates sticking.
- Pilot valve with balanced poppet, high flow, short and consistent response times



HOW TO ORDER

SINGLE PRESSURE MODELS (Side ports)

| Port size | Pilot air | 5/2 Single solenoid | 5/2 Double solenoid | 5/3 Closed Center | 5/3 Open Center |
|-------------------|-----------|-------------------------|-------------------------|-------------------------|-------------------------|
| | | | | | |
| Valve only | Internal | 24A-AA-000-Exx-RxxP-xxx | 24A-BA-000-Exx-RxxP-xxx | 24A-EA-000-Exx-RxxP-xxx | 24A-FA-000-Exx-RxxP-xxx |
| | External | 24A-AB-000-Exx-RxxP-xxx | 24A-BB-000-Exx-RxxP-xxx | 24A-EB-000-Exx-RxxP-xxx | 24A-FB-000-Exx-RxxP-xxx |
| #10-32 | Internal | 24A-AA-A1A-Exx-RxxP-xxx | 24A-BA-A1A-Exx-RxxP-xxx | 24A-EA-A1A-Exx-RxxP-xxx | 24A-FA-A1A-Exx-RxxP-xxx |
| | External | 24A-AB-A1A-Exx-RxxP-xxx | 24A-BB-A1A-Exx-RxxP-xxx | 24A-EB-A1A-Exx-RxxP-xxx | 24A-FB-A1A-Exx-RxxP-xxx |
| M5 | Internal | 24A-AA-B1A-Exx-RxxP-xxx | 24A-BA-B1A-Exx-RxxP-xxx | 24A-EA-B1A-Exx-RxxP-xxx | 24A-FA-B1A-Exx-RxxP-xxx |
| | External | 24A-AB-B1A-Exx-RxxP-xxx | 24A-BB-B1A-Exx-RxxP-xxx | 24A-EB-B1A-Exx-RxxP-xxx | 24A-FB-B1A-Exx-RxxP-xxx |
| M7 | Internal | 24A-AA-C1A-Exx-RxxP-xxx | 24A-BA-C1A-Exx-RxxP-xxx | 24A-EA-C1A-Exx-RxxP-xxx | 24A-FA-C1A-Exx-RxxP-xxx |
| | External | 24A-AB-C1A-Exx-RxxP-xxx | 24A-BB-C1A-Exx-RxxP-xxx | 24A-EB-C1A-Exx-RxxP-xxx | 24A-FB-C1A-Exx-RxxP-xxx |

DUAL PRESSURE MODELS (Internal pilot only – Side ports)

| Port size | Pilot air | 5/2 Single solenoid | 5/2 Double solenoid | 5/3 Pressure Center |
|-------------------|-----------------------|-------------------------|-------------------------|-------------------------|
| | | | | |
| Valve only | Internal from port #3 | 24A-CG-000-Exx-RxxP-xxx | 24A-DG-000-Exx-RxxP-xxx | 24A-GG-000-Exx-RxxP-xxx |
| | Internal from port #5 | 24A-CH-000-Exx-RxxP-xxx | 24A-DH-000-Exx-RxxP-xxx | 24A-GH-000-Exx-RxxP-xxx |
| #10-32 | Internal from port #3 | 24A-CG-A1A-Exx-RxxP-xxx | 24A-DG-A1A-Exx-RxxP-xxx | 24A-GG-A1A-Exx-RxxP-xxx |
| | Internal from port #5 | 24A-CH-A1A-Exx-RxxP-xxx | 24A-DH-A1A-Exx-RxxP-xxx | 24A-GH-A1A-Exx-RxxP-xxx |
| M5 | Internal from port #3 | 24A-CG-B1A-Exx-RxxP-xxx | 24A-DG-B1A-Exx-RxxP-xxx | 24A-GG-B1A-Exx-RxxP-xxx |
| | Internal from port #5 | 24A-CH-B1A-Exx-RxxP-xxx | 24A-DH-B1A-Exx-RxxP-xxx | 24A-GH-B1A-Exx-RxxP-xxx |
| M7 | Internal from port #3 | 24A-CG-C1A-Exx-RxxP-xxx | 24A-DG-C1A-Exx-RxxP-xxx | 24A-GG-C1A-Exx-RxxP-xxx |
| | Internal from port #5 | 24A-CH-C1A-Exx-RxxP-xxx | 24A-DH-C1A-Exx-RxxP-xxx | 24A-GH-C1A-Exx-RxxP-xxx |

SOLENOID OPERATOR

E XX - R XX X - X XX

| XX Pilot type | XX Voltage | X Lead wire length | X Manual operator | XX Electrical connector |
|---|--|-----------------------|---|--|
| M2 Muffled exhaust P2 Piped exhaust (M3) | DB 24VDC (1.0W) DC 24VDC (1.8W) DD 24VDC (2.5W) DF 24VDC (4.0W) DH 12VDC (1.0W) DJ 12VDC (1.8W) DK 12VDC (2.5W) DM 12VDC (4.0W) | P Base plug-in | 0 No manual operator 1 Recessed non locking 3 Extended non locking | FA Base plug-in FB Base plug-in w/ LED FC Base plug-in w/MOV FD Base plug-in w/ MOV and LED |

OPTIONS

- 24A-XX - X **X** X-Exx-Rxxx-xxx
- 1** Individual base – Side ports
 - 2** Individual base – Bottom ports (no side ports)

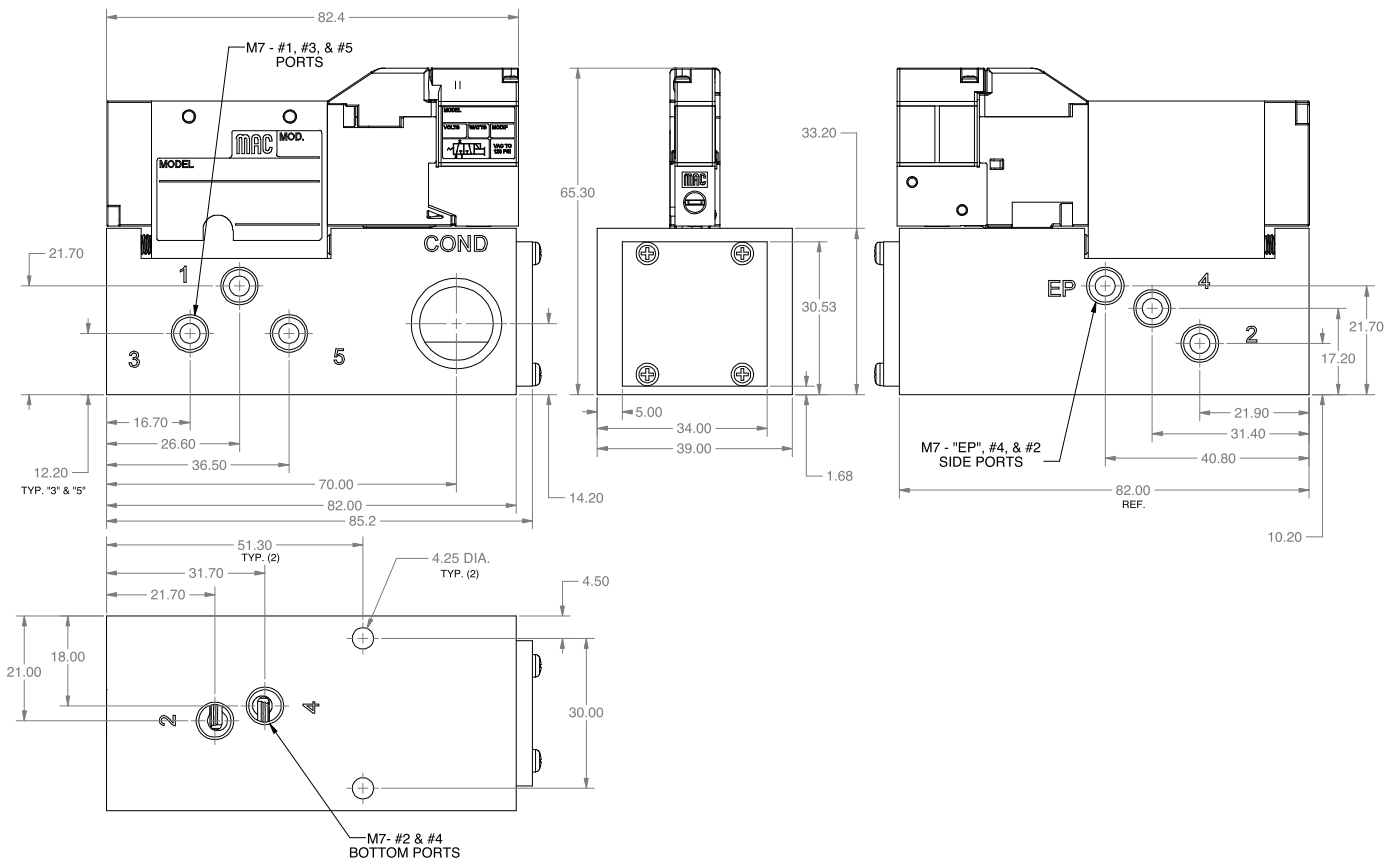
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TECHNICAL DATA

| | |
|-----------------|--|
| Fluids: | Compressed air, vacuum, inert gases |
| Pressure range: | 2 position internal pilot: Single solenoid: 30 to 120 psi / 2 to 8 bar Double solenoid: 20 to 120 psi / 1,3 to 8 bar 2/3 position external pilot: vacuum to 120 psi / 8 bar 3 position internal pilot: 40 to 120 psi / 2,7 to 8 bar |
| Lubrication: | Not required, if used select a medium aniline point lubricant (between 180°F and 210°F / 80°C to 100°C) |
| Filtration: | 40µ |
| Flow: | 0.37 Cv / 370 NI/min |
| Coil: | Class A (#26 AWG x 18), continuous duty |
| Voltage range: | -15% to +10% of nominal voltage |
| Power | 4.0W, 3.0W, 2.5W, 1.8W, 1.0W |

DIMENSIONS

Dimensions shown are metric



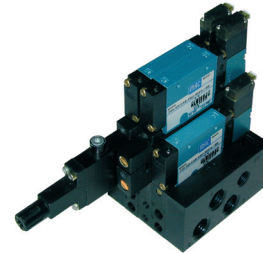


Direct solenoid and solenoid pilot operated valves 10 mm valve

| | | | |
|-----------------|-----------------------|---------------------------------|----------------------------------|
| Function | Port size | Flow [Max]/[Cv / NI/min] | Manifold mounting |
| 5/2, 5/3 | M5, #10-32, M7 | 0.4 / 400 | Manifold base non plug-in |

OPERATIONAL BENEFITS

1. 10 mm valve – solenoid pilot operated.
2. Balanced spool, immune to variations of pressure.
3. Bonded spool with minimal friction.
4. Wiping effect, eliminates sticking.
5. Pilot valve with balanced poppet, high flow, short and consistent response times



HOW TO ORDER

SINGLE PRESSURE MODELS (Side ports)

| Port size | Pilot air | 5/2 Single solenoid | 5/2 Double solenoid | 5/3 Closed Center | 5/3 Open Center |
|-------------------|-----------|-------------------------|-------------------------|-------------------------|-------------------------|
| | | | | | |
| Valve only | Internal | 24A-AD-000-Exx-Rxxx-xxx | 24A-BD-000-Exx-Rxxx-xxx | 24A-ED-000-Exx-Rxxx-xxx | 24A-FD-000-Exx-Rxxx-xxx |
| | External | 24A-AE-000-Exx-Rxxx-xxx | 24A-BE-000-Exx-Rxxx-xxx | 24A-EE-000-Exx-Rxxx-xxx | 24A-FE-000-Exx-Rxxx-xxx |
| #10-32 | Internal | 24A-AD-AAB-Exx-Rxxx-xxx | 24A-BD-AAB-Exx-Rxxx-xxx | 24A-ED-AAB-Exx-Rxxx-xxx | 24A-FD-AAB-Exx-Rxxx-xxx |
| | External | 24A-AE-AAB-Exx-Rxxx-xxx | 24A-BE-AAB-Exx-Rxxx-xxx | 24A-EE-AAB-Exx-Rxxx-xxx | 24A-FE-AAB-Exx-Rxxx-xxx |
| M5 | Internal | 24A-AD-BAB-Exx-Rxxx-xxx | 24A-BD-BAB-Exx-Rxxx-xxx | 24A-ED-BAB-Exx-Rxxx-xxx | 24A-FD-BAB-Exx-Rxxx-xxx |
| | External | 24A-AE-BAB-Exx-Rxxx-xxx | 24A-BE-BAB-Exx-Rxxx-xxx | 24A-EE-BAB-Exx-Rxxx-xxx | 24A-FE-BAB-Exx-Rxxx-xxx |
| M7 | Internal | 24A-AD-CAB-Exx-Rxxx-xxx | 24A-BD-CAB-Exx-Rxxx-xxx | 24A-ED-CAB-Exx-Rxxx-xxx | 24A-FD-CAB-Exx-Rxxx-xxx |
| | External | 24A-AE-CAB-Exx-Rxxx-xxx | 24A-BE-CAB-Exx-Rxxx-xxx | 24A-EE-CAB-Exx-Rxxx-xxx | 24A-FE-CAB-Exx-Rxxx-xxx |

DUAL PRESSURE MODELS (Internal pilot only – Side ports)

| Port size | Pilot air | 5/2 Single solenoid | 5/2 Double solenoid | 5/3 Pressure Center |
|-------------------|-----------------------|-------------------------|-------------------------|-------------------------|
| | | | | |
| Valve only | Internal from port #3 | 24A-CJ-000-Exx-Rxxx-xxx | 24A-DJ-000-Exx-Rxxx-xxx | 24A-GJ-000-Exx-Rxxx-xxx |
| | Internal from port #5 | 24A-CK-000-Exx-Rxxx-xxx | 24A-DK-000-Exx-Rxxx-xxx | 24A-GK-000-Exx-Rxxx-xxx |
| #10-32 | Internal from port #3 | 24A-CJ-AAB-Exx-Rxxx-xxx | 24A-DJ-AAB-Exx-Rxxx-xxx | 24A-GJ-AAB-Exx-Rxxx-xxx |
| | Internal from port #5 | 24A-CK-AAB-Exx-Rxxx-xxx | 24A-DK-AAB-Exx-Rxxx-xxx | 24A-GK-AAB-Exx-Rxxx-xxx |
| M5 | Internal from port #3 | 24A-CJ-BAB-Exx-Rxxx-xxx | 24A-DJ-BAB-Exx-Rxxx-xxx | 24A-GJ-BAB-Exx-Rxxx-xxx |
| | Internal from port #5 | 24A-CK-BAB-Exx-Rxxx-xxx | 24A-DK-BAB-Exx-Rxxx-xxx | 24A-GK-BAB-Exx-Rxxx-xxx |
| M7 | Internal from port #3 | 24A-CJ-CAB-Exx-Rxxx-xxx | 24A-DJ-CAB-Exx-Rxxx-xxx | 24A-GJ-CAB-Exx-Rxxx-xxx |
| | Internal from port #5 | 24A-CK-CAB-Exx-Rxxx-xxx | 24A-DK-CAB-Exx-Rxxx-xxx | 24A-GK-CAB-Exx-Rxxx-xxx |

SOLENOID OPERATOR

E XX - R XX X - X XX

| XX Pilot type | XX Voltage | X Lead wire length | X Manual operator | XX Electrical connector |
|------------------------------|------------------------|------------------------|-------------------------------|--|
| M2 Muffled exhaust | DB 24VDC (1.0W) | O* No lead wire | 0 No manual operator | BA Flying leads |
| P2 Piped exhaust (M3) | DC 24VDC (1.8W) | A 18" / 45 cm | 1 Recessed non locking | BB Flying leadsw/LED |
| | DD 24VDC (2.5W) | B 24" / 60 cm | 3 Extended non locking | RA Mini JAC solenoid plug-in |
| | DF 24VDC (4.0W) | C 36" / 60 cm | | RB Mini JAC sol. plug-in w/ LED |
| | DH 12VDC (1.0W) | | | TA JST solenoid plug-in |
| | DJ 12VDC (1.8W) | | | TB JST sol. plug-in w/ LED |
| | DK 12VDC (2.5W) | | | |
| | DM 12VDC (4.0W) | | | |

End plate kit required (Port size 1/4"): M-24002-01-01 (internal pilot) – M-24002-02-01 (external pilot)

Note : For pilot exhaust out main exhaust mod. 0353 is required

OPTIONS

24A-XX-X X-Exx-Rxxx-xxx

- A** Manifold base – Side cylinder ports
- B** Manifold base – Bottom cylinder ports (no side cylinder ports)

Direct solenoid and solenoid pilot operated valves 10 mm valve

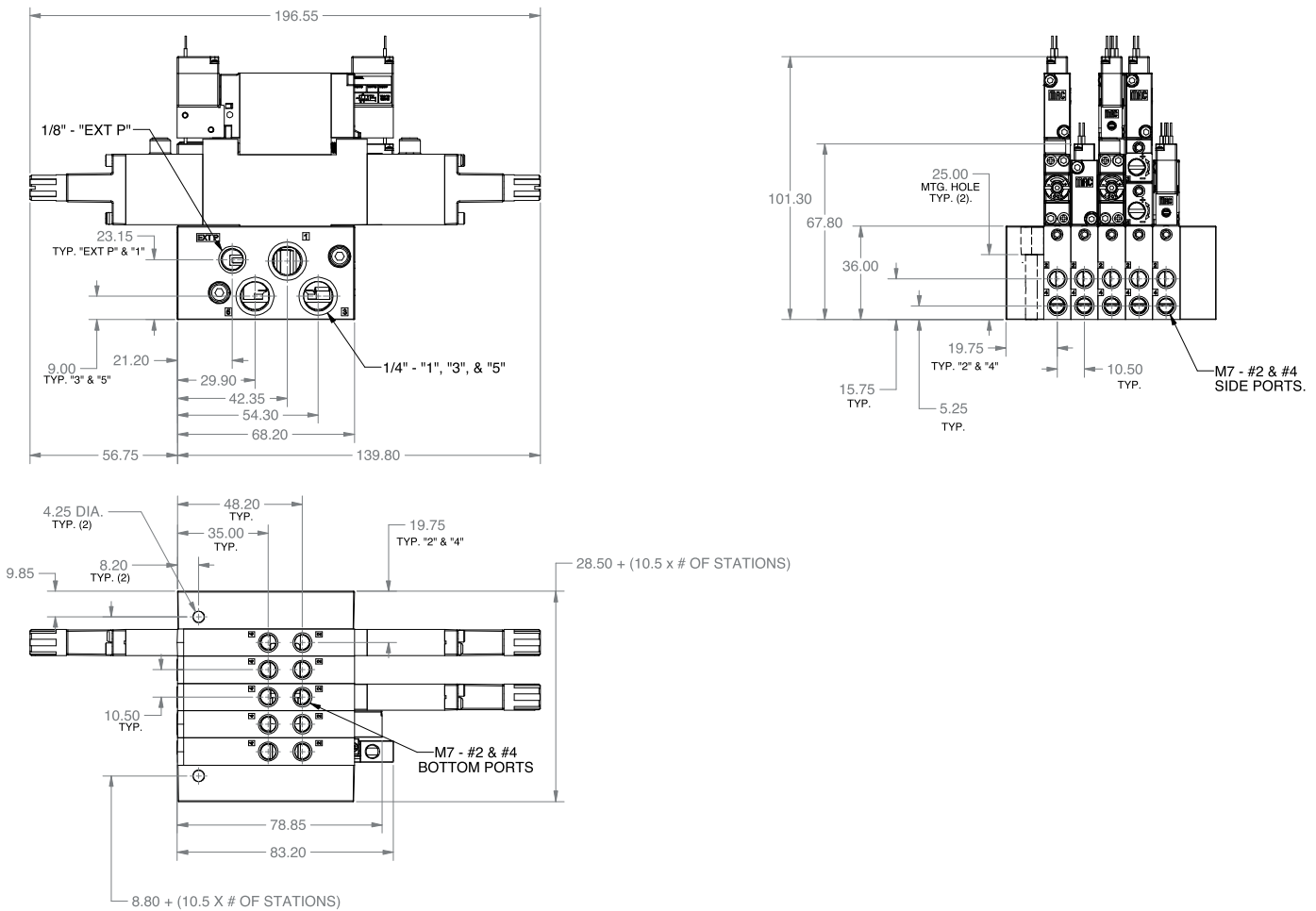
TECHNICAL DATA

| | |
|-----------------|---|
| Fluids: | Compressed air, vacuum, inert gases |
| Pressure range: | 2 position internal pilot: Single solenoid: 30 to 120 psi / 2 to 8 bar Double solenoid: 20 to 120 psi / 1,3 to 8 bar 2/3 position external pilot: vacuum to 120 psi / 8bar 3 position internal pilot: 40 to 120 psi / 2,7 to 8 bar |
| Lubrication: | Not required, if used select a medium aniline point lubricant (between 180°F and 210°F / 80°C to 100°C) |
| Filtration: | 40µ |
| Flow: | 0.4 Cv / 400 NI/min |
| Coil: | Class A (#26 AWG x 18), continuous duty |
| Voltage range: | -15% to +10% of nominal voltage |
| Power | 4.0W, 3.0W, 2.5W, 1.8W, 1.0W |

Spare parts: • Blank station cover plate: M-24004 • Inlet isolator: 28568
• Exhaust isolator (Port #5): 28569 • Exhaust isolator (Port #3): 28570

DIMENSIONS

Dimensions shown are metric



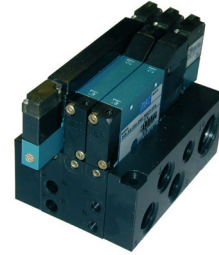


Direct solenoid and solenoid pilot operated valves 10 mm valve

| | | | |
|-----------------|-----------------------|-----------------------------------|------------------------------|
| Function | Port size | Flow [Max] / [Cv / NI/min] | Manifold mounting |
| 5/2, 5/3 | M5, #10-32, M7 | 0.4 / 400 | Manifold base plug-in |

OPERATIONAL BENEFITS

1. 10 mm valve – solenoid pilot operated.
2. Balanced spool, immune to variations of pressure.
3. Bonded spool with minimal friction.
4. Wiping effect, eliminates sticking.
5. Pilot valve with balanced poppet, high flow, short and consistent response times



HOW TO ORDER

SINGLE PRESSURE MODELS (Side ports)

| Port size | Pilot air | 5/2 Single solenoid | 5/2 Double solenoid | 5/3 Closed Center | 5/3 Open Center |
|-------------------|-----------|-------------------------|-------------------------|-------------------------|-------------------------|
| | | | | | |
| Valve only | Internal | 24A-AA-000-Exx-RxxP-xxx | 24A-BA-000-Exx-RxxP-xxx | 24A-EA-000-Exx-RxxP-xxx | 24A-FA-000-Exx-RxxP-xxx |
| | External | 24A-AB-000-Exx-RxxP-xxx | 24A-BB-000-Exx-RxxP-xxx | 24A-EB-000-Exx-RxxP-xxx | 24A-FB-000-Exx-RxxP-xxx |
| #10-32 | Internal | 24A-AA-AAA-Exx-RxxP-xxx | 24A-BA-AAA-Exx-RxxP-xxx | 24A-EA-AAA-Exx-RxxP-xxx | 24A-FA-AAA-Exx-RxxP-xxx |
| | External | 24A-AB-AAA-Exx-RxxP-xxx | 24A-BB-AAA-Exx-RxxP-xxx | 24A-EB-AAA-Exx-RxxP-xxx | 24A-FB-AAA-Exx-RxxP-xxx |
| M5 | Internal | 24A-AA-BAA-Exx-RxxP-xxx | 24A-BA-BAA-Exx-RxxP-xxx | 24A-EA-BAA-Exx-RxxP-xxx | 24A-FA-BAA-Exx-RxxP-xxx |
| | External | 24A-AB-BAA-Exx-RxxP-xxx | 24A-BB-BAA-Exx-RxxP-xxx | 24A-EB-BAA-Exx-RxxP-xxx | 24A-FB-BAA-Exx-RxxP-xxx |
| M7 | Internal | 24A-AA-CAA-Exx-RxxP-xxx | 24A-BA-CAA-Exx-RxxP-xxx | 24A-EA-CAA-Exx-RxxP-xxx | 24A-FA-CAA-Exx-RxxP-xxx |
| | External | 24A-AB-CAA-Exx-RxxP-xxx | 24A-BB-CAA-Exx-RxxP-xxx | 24A-EB-CAA-Exx-RxxP-xxx | 24A-FB-CAA-Exx-RxxP-xxx |

DUAL PRESSURE MODELS (Internal pilot only – Side ports)

| Port size | Pilot air | 5/2 Single solenoid | 5/2 Double solenoid | 5/3 Pressure Center |
|-------------------|-----------------------|-------------------------|-------------------------|-------------------------|
| | | | | |
| Valve only | Internal from port #3 | 24A-CG-000-Exx-RxxP-xxx | 24A-DG-000-Exx-RxxP-xxx | 24A-GG-000-Exx-RxxP-xxx |
| | Internal from port #5 | 24A-CH-000-Exx-RxxP-xxx | 24A-DH-000-Exx-RxxP-xxx | 24A-GH-000-Exx-RxxP-xxx |
| #10-32 | Internal from port #3 | 24A-CG-AAA-Exx-RxxP-xxx | 24A-DG-AAA-Exx-RxxP-xxx | 24A-GG-AAA-Exx-RxxP-xxx |
| | Internal from port #5 | 24A-CH-AAA-Exx-RxxP-xxx | 24A-DH-AAA-Exx-RxxP-xxx | 24A-GH-AAA-Exx-RxxP-xxx |
| M5 | Internal from port #3 | 24A-CG-BAA-Exx-RxxP-xxx | 24A-DG-BAA-Exx-RxxP-xxx | 24A-GG-BAA-Exx-RxxP-xxx |
| | Internal from port #5 | 24A-CH-BAA-Exx-RxxP-xxx | 24A-DH-BAA-Exx-RxxP-xxx | 24A-GH-BAA-Exx-RxxP-xxx |
| M7 | Internal from port #3 | 24A-CG-CAA-Exx-RxxP-xxx | 24A-DG-CAA-Exx-RxxP-xxx | 24A-GG-CAA-Exx-RxxP-xxx |
| | Internal from port #5 | 24A-CH-CAA-Exx-RxxP-xxx | 24A-DH-CAA-Exx-RxxP-xxx | 24A-GH-CAA-Exx-RxxP-xxx |

SOLENOID OPERATOR

E XX - R XX X - X XX

| XX Pilot type | XX Voltage | X Lead wire length | X Manual operator | XX Electrical connector |
|------------------------------|------------------------|-----------------------|-------------------------------|--------------------------------------|
| M2 Muffled exhaust | DB 24VDC (1.0W) | P Base plug-in | 0 No manual operator | FA Base plug-in |
| P2 Piped exhaust (M3) | DC 24VDC (1.8W) | | 1 Recessed non locking | FB Base plug-in w/ LED |
| | DD 24VDC (2.5W) | | 3 Extended non locking | FC Base plug-in w/MOV |
| | DF 24VDC (4.0W) | | | FD Base plug-in w/MOV and LED |
| | DH 12VDC (1.0W) | | | |
| | DJ 12VDC (1.8W) | | | |
| | DK 12VDC (2.5W) | | | |
| | DM 12VDC (4.0W) | | | |

End plate kit required (Port size 1/4"): M-24005-01-01 (internal pilot) – M-24005-02-01 (external pilot)

OPTIONS

- 24A-XX-X **X** X-Exx-Rxxx-xxx
- A** Manifold base – Side cylinder ports
 - B** Manifold base – Bottom cylinder ports (no side cylinder ports)

Direct solenoid and solenoid pilot operated valves 10 mm valve

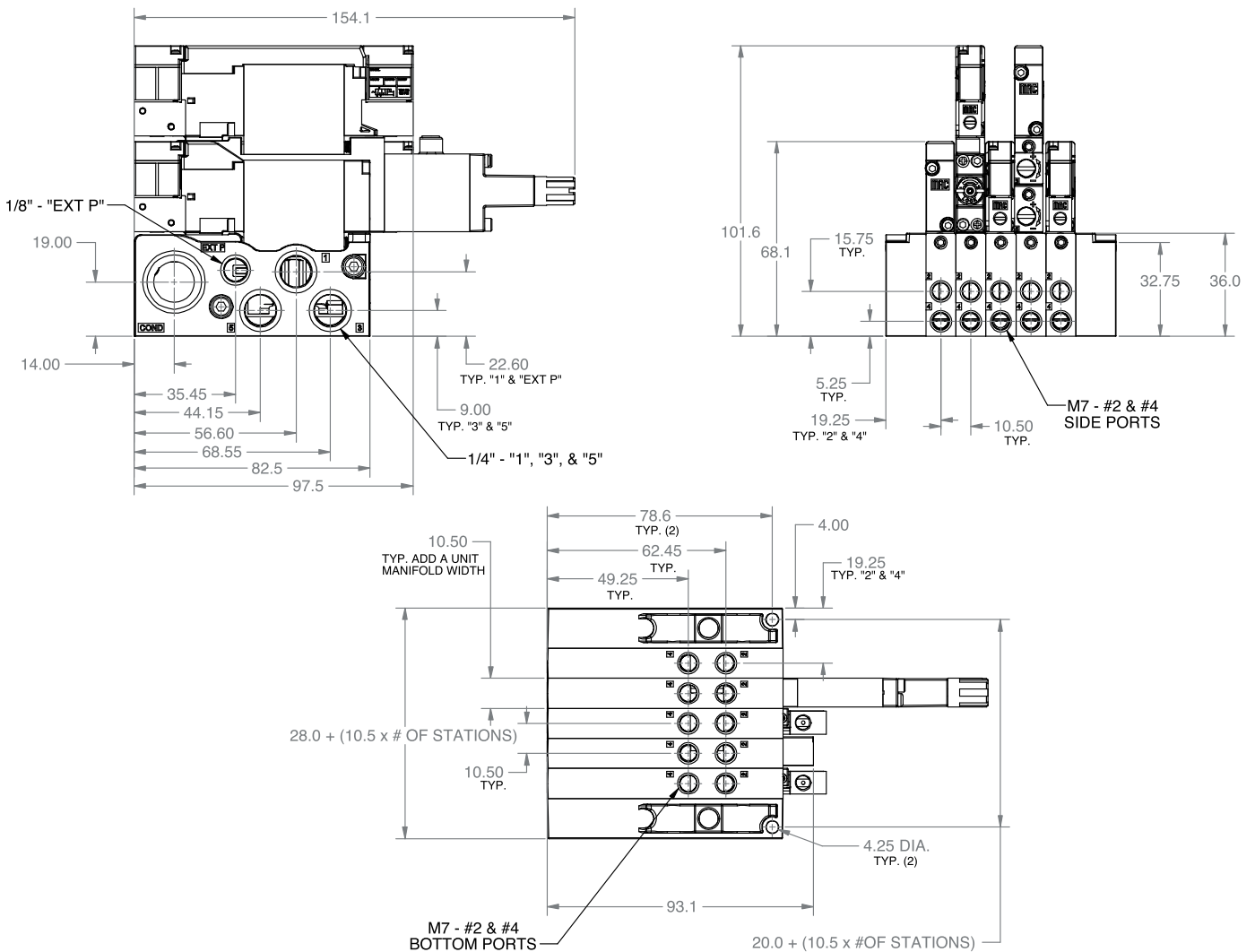
TECHNICAL DATA

| | |
|-----------------|--|
| Fluids: | Compressed air, vacuum, inert gases |
| Pressure range: | 2 position internal pilot: Single solenoid: 30 to 120 psi / 2 to 8 bar Double solenoid: 20 to 120 psi / 1.3 to 8 bar 2/3 position external pilot: vacuum to 120 psi / 8 bar 3 position internal pilot: 40 to 120 psi / 2.7 to 8 bar |
| Lubrication: | Not required, if used select a medium aniline point lubricant (between 180°F and 210°F / 80°C to 100°C) |
| Filtration: | 40µ |
| Flow: | 0.4 Cv / 400 NI/min |
| Coil: | Class A (#26 AWG x 18), continuous duty |
| Voltage range: | -15% to +10% of nominal voltage |
| Power | 4.0W, 3.0W, 2.5W, 1.8W, 1.0W |

- Spare parts: • Blank station cover plate: M-24004 • Inlet isolator: 28568
• Exhaust isolator (Port #5): 28569 • Exhaust isolator (Port #3): 28570

DIMENSIONS

Dimensions shown are metric





Direct solenoid and solenoid pilot operated valves

| Function | Port size | Flow [Max]/[Cv / NI/min] | Circuit bar mounting |
|------------------|-----------------------|--------------------------|----------------------|
| 5/2 - 5/3 | #10-32 -M5 -M7 | 0.40 / 400 | Non plug-in |

OPERATIONAL BENEFITS

1. 10 mm valve – solenoid pilot operated.
2. Balanced spool, immune to variations of pressure.
3. Bonded spool with minimal friction.
4. Wiping effect, eliminates sticking.
5. Pilot valve with balanced poppet, high flow, short and consistent response times



HOW TO ORDER

HOW TO ORDER VALVE FOR CIRCUIT BAR MOUNTING SINGLE PRESSURE MODELS

| Pilot air | 5/2 Single solenoid | 5/2 Double solenoid | 5/3 Closed Center | 5/3 Open Center |
|-----------|-------------------------|-------------------------|-------------------------|-------------------------|
| | | | | |
| Internal | 24A-AD-000-Exx-Rxxx-xxx | 24A-BD-000-Exx-Rxxx-xxx | 24A-ED-000-Exx-Rxxx-xxx | 24A-FD-000-Exx-Rxxx-xxx |
| External | 24A-AE-000-Exx-Rxxx-xxx | 24A-BE-000-Exx-Rxxx-xxx | 24A-EE-000-Exx-Rxxx-xxx | 24A-FE-000-Exx-Rxxx-xxx |

DUAL PRESSURE MODELS (Internal pilot only)

| Pilot air | 5/2 Single solenoid | 5/2 Double solenoid | 5/3 Pressure Center |
|-----------------------|-------------------------|-------------------------|-------------------------|
| | | | |
| Internal from port #3 | 24A-CJ-000-Exx-Rxxx-xxx | 24A-DJ-000-Exx-Rxxx-xxx | 24A-GJ-000-Exx-Rxxx-xxx |
| Internal from port #5 | 24A-CK-000-Exx-Rxxx-xxx | 24A-DK-000-Exx-Rxxx-xxx | 24A-GK-000-Exx-Rxxx-xxx |

SOLENOID OPERATOR

E XX - R XX X - X XX

| XX Pilot type | XX Voltage | X Lead wire length | X Manual operator | XX Electrical connector |
|---|--|--|---|--|
| M2 Muffled exhaust P2 Piped exhaust (M3) | DB 24VDC (1.0W) DC 24VDC (1.8W) DD 24VDC (2.5W) DF 24VDC (4.0W) DH 12VDC (1.0W) DJ 12VDC (1.8W) DK 12VDC (2.5W) DM 12VDC (4.0W) | 0* No lead wire A 18" / 45 cm B 24" / 60 cm C 36" / 90 cm | 0 No manual operator 1 Recessed non locking 3 Extended non locking | BA Flying leads BB Flying leads w/LED RA Mini JAC solenoid plug-in RB Mini JAC sol. plug-in w/LED TA JST solenoid plug-in TB JST sol. plug-in w/LED |

* Not available for flying lead connectors

HOW TO ORDER CIRCUIT BAR

| Pilot type | Pilot air | Side cylinder ports | Bottom cylinder ports |
|------------|-----------|---------------------|-----------------------|
| #10-32 UNF | Internal | EBM24A-00AAA-XX | EBM24A-00BAA-XX |
| | External | EBM24A-00ADA-XX | EBM24A-00BDA-XX |
| M5 | Internal | EBM24A-00AAB-XX | EBM24A-00BAB-XX |
| | External | EBM24A-00ADB-XX | EBM24A-00BDB-XX |
| M7 | Internal | EBM24A-00AAC-XX | EBM24A-00BAC-XX |
| | External | EBM24A-00ADC-XX | EBM24A-00BDC-XX |

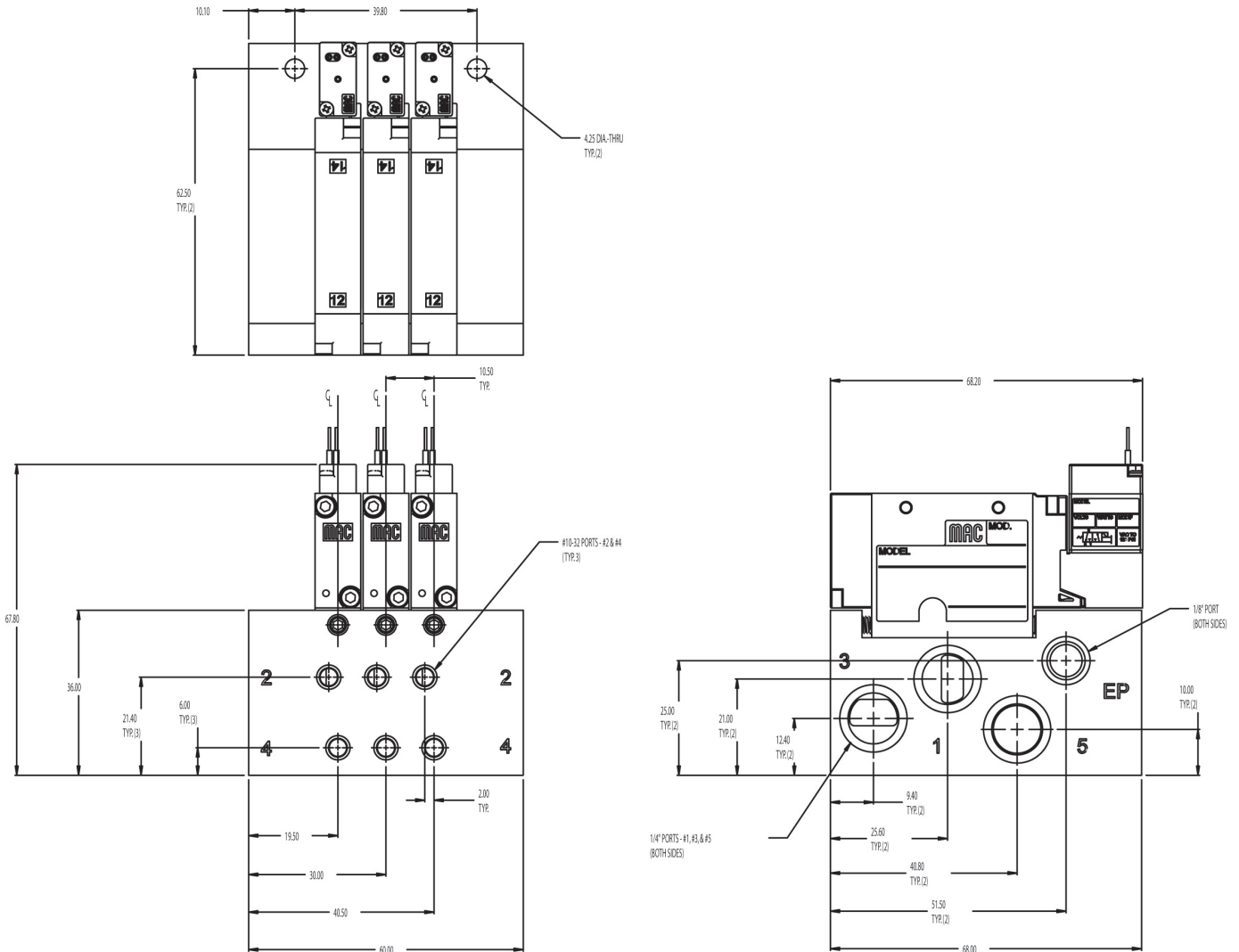
XX = Number of stations

TECHNICAL DATA

| | |
|-----------------|---|
| Fluids: | Compressed air, vacuum, inert gases |
| Pressure range: | 2 position internal pilot: Single solenoid: 30 to 120 psi / 2 to 8 bar (air return), 35 to 120 psi / 2,3 to 8 bar (spring return) Double solenoid: 20 to 120 psi / 1,3 to 8 bar 2/3 position external pilot: vacuum to 120 psi / 8 bar 3 position internal pilot: 40 to 120 psi / 2,7 to 8 bar |
| Lubrication: | Not required, if used select a medium aniline point lubricant (between 180°F and 210°F / 80°C and 100°C) |
| Filtration: | 40µ |
| Flow: | Up to 0.40 Cv / 400 NI/min |
| Coil: | Class A (#26 AWG x 18), continuous duty |
| Voltage range: | -15% to +10% of nominal voltage |
| Power | 4.0W, 3.0W, 2.5W, 1.8W, 1.0W |

DIMENSIONS

Dimensions shown are metric





Direct solenoid and solenoid pilot operated valves

| Function | Port size | Flow [Max]/[Cv/NI/min] | Circuit bar mounting |
|------------------|-----------------------|------------------------|------------------------------|
| 5/2 - 5/3 | #10-32 -M5 -M7 | 0.40 / 400 | Plug-in - Low profile |

OPERATIONAL BENEFITS

1. 10 mm valve – solenoid pilot operated.
2. Balanced spool, immune to variations of pressure.
3. Bonded spool with minimal friction.
4. Wiping effect, eliminates sticking.
5. Pilot valve with balanced poppet, high flow, short and consistent response times



HOW TO ORDER

HOW TO ORDER VALVE FOR CIRCUIT BAR MOUNTING
SINGLE PRESSURE MODELS

| Pilot air | 5/2 Single solenoid | 5/2 Double solenoid | 5/3 Closed Center | 5/3 Open Center |
|-----------|-------------------------|-------------------------|-------------------------|-------------------------|
| | | | | |
| Internal | 24A-AA-000-Exx-RxxP-xxx | 24A-BA-000-Exx-RxxP-xxx | 24A-EA-000-Exx-RxxP-xxx | 24A-FA-000-Exx-RxxP-xxx |

DUAL PRESSURE MODELS (Internal pilot only)

| Pilot air | 5/2 Single solenoid | 5/2 Double solenoid | 5/3 Pressure Center |
|-----------------------|-------------------------|-------------------------|-------------------------|
| | | | |
| Internal from port #3 | 24A-CG-000-Exx-RxxP-xxx | 24A-DG-000-Exx-RxxP-xxx | 24A-GG-000-Exx-RxxP-xxx |
| Internal from port #5 | 24A-CH-000-Exx-RxxP-xxx | 24A-DH-000-Exx-RxxP-xxx | 24A-GH-000-Exx-RxxP-xxx |

SOLENOID OPERATOR ▶

E XX - R XX X - X XX

| XX Pilot type | XX Voltage | X Lead wire length | X Manual operator | XX Electrical connector |
|---|--|-----------------------|---|--|
| M2 Muffled exhaust P2 Piped exhaust (M3) | DB 24VDC (1.0W) DC 24VDC (1.8W) DD 24VDC (2.5W) DF 24VDC (4.0W) DH 12VDC (1.0W) DJ 12VDC (1.8W) DK 12VDC (2.5W) DM 12VDC (4.0W) | P Base plug-in | 0 No manual operator 1 Recessed non locking 3 Extended non locking | FA Base plug-in FB Base plug-in w/LED FC Base plug-in w/MOV FD Base plug-in w/LED and MOV |

HOW TO ORDER CIRCUIT BAR (internal pilot only)

| Pilot size | Base Electrical | Side cylinder ports | Bottom cylinder ports |
|------------|-----------------|---------------------|-----------------------|
| #10-32 UNF | Single solenoid | ECD24A-00AAA-A0XX | ECD24A-00BAA-A0XX |
| | Double solenoid | ECD24A-00AAA-B0XX | ECD24A-00BAA-B0XX |
| M5 | Single solenoid | ECD24A-00AAB-A0XX | ECD24A-00BAB-A0XX |
| | Double solenoid | ECD24A-00AAB-B0XX | ECD24A-00BAB-B0XX |
| M7 | Single solenoid | ECD24A-00AAC-A0XX | ECD24A-00BAC-A0XX |
| | Double solenoid | ECD24A-00AAC-B0XX | ECD24A-00BAC-B0XX |

XX = Number of stations

Note : Common inlet and exhaust ports are 1/4"

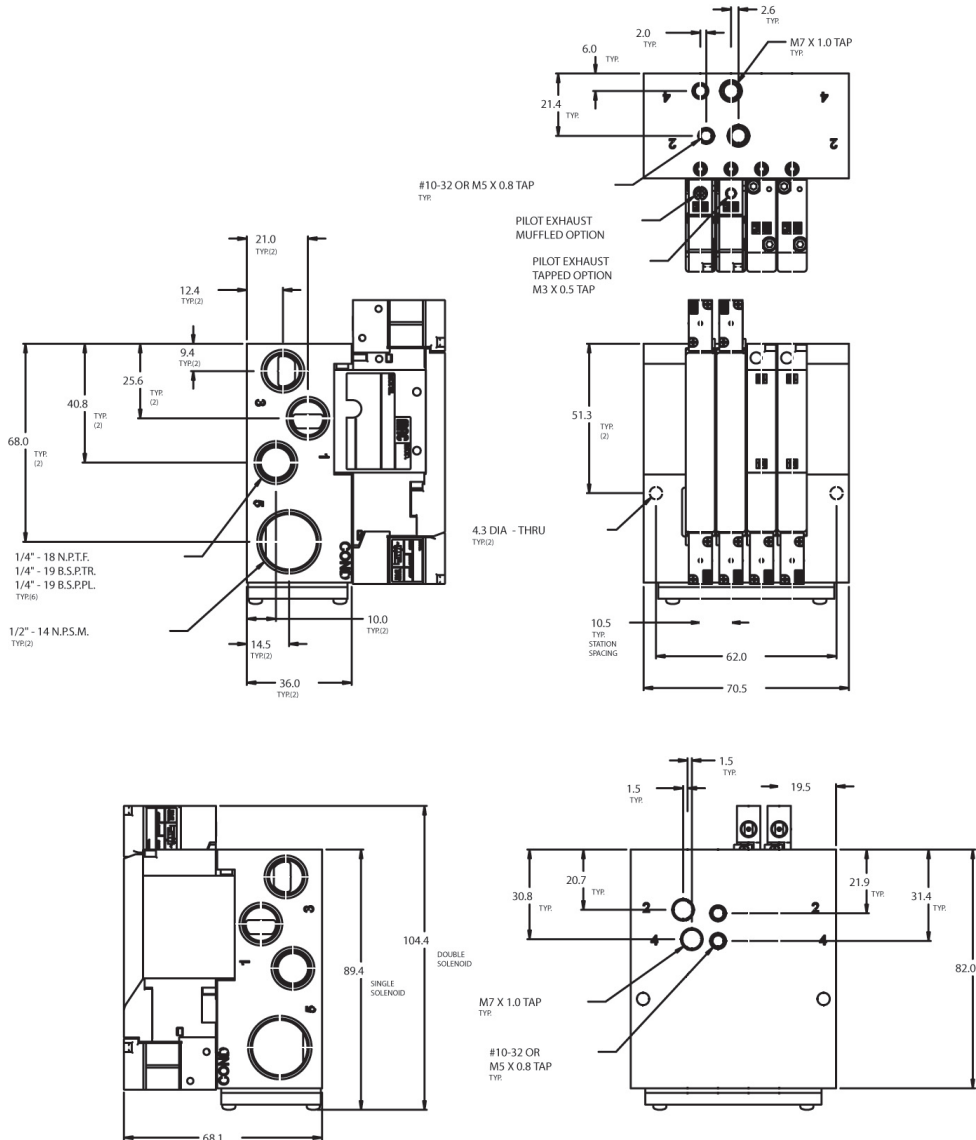
TECHNICAL DATA

| | |
|-----------------|---|
| Fluids: | Compressed air, vacuum, inert gases |
| Pressure range: | 2 position internal pilot: Single solenoid: 30 to 120 psi / 2 to 8 bar (air return), 35 to 120 psi / 2,3 to 8 bar (spring return) Double solenoid: 20 to 120 psi / 1,3 to 8 bar 2/3 position external pilot: vacuum to 120 psi / 8 bar 3 position internal pilot: 40 to 120 psi / 2,7 to 8 bar |
| Lubrication: | Not required, if used select a medium aniline point lubricant (between 180°F and 210°F / 80°C to 100°C) |
| Filtration: | 40µ |
| Flow: | Up to 0.40 Cv / 400 NI/min |
| Coil: | Class A (#26 AWG x 18), continuous duty |
| Voltage range: | -15% to +10% of nominal voltage |
| Power | 4.0W, 3.0W, 2.5W, 1.8W, 1.0W |

Spare parts : • Blank station cover plate : M-24004 • Base wire plug-in protector : 16942-01

DIMENSIONS

Dimensions shown are metric



| Function | Port size | Flow [Max]/[Cv/NI/min] | Circuit bar mounting |
|------------------|-----------------------|------------------------|------------------------------|
| 5/2 - 5/3 | #10-32 -M5 -M7 | 0.40 / 400 | Plug-in - Mid profile |

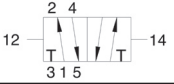
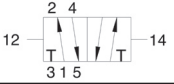

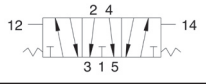
OPERATIONAL BENEFITS

1. 10 mm valve – solenoid pilot operated.
2. Balanced spool, immune to variations of pressure.
3. Bonded spool with minimal friction.
4. Wiping effect, eliminates sticking.
5. Pilot valve with balanced poppet, high flow, short and consistent response times

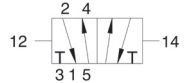




HOW TO ORDER

HOW TO ORDER VALVE FOR CIRCUIT BAR MOUNTING SINGLE PRESSURE MODELS

| Pilot air | 5/2 Single solenoid | 5/2 Double solenoid | 5/3 Closed Center | 5/3 Open Center |
|-----------|---|---|---|---|
| |  |  |  |  |
| Internal | 24A-AA-000-Exx-RxxP-xxx | 24A-BA-000-Exx-RxxP-xxx | 24A-EA-000-Exx-RxxP-xxx | 24A-FA-000-Exx-RxxP-xxx |
| External | 24A-AB-000-Exx-RxxP-xxx | 24A-BB-000-Exx-RxxP-xxx | 24A-EB-000-Exx-RxxP-xxx | 24A-FB-000-Exx-RxxP-xxx |

DUAL PRESSURE MODELS (Internal pilot only)

| Pilot air | 5/2 Single solenoid | 5/2 Double solenoid | 5/3 Pressure Center |
|-----------------------|---|--|---|
| |  |  |  |
| Internal from port #3 | 24A-CG-000-Exx-RxxP-xxx | 24A-DG-000-Exx-RxxP-xxx | 24A-GG-000-Exx-RxxP-xxx |
| Internal from port #5 | 24A-CH-000-Exx-RxxP-xxx | 24A-DH-000-Exx-RxxP-xxx | 24A-GH-000-Exx-RxxP-xxx |

SOLENOID OPERATOR

E XX - R XX X - X XX

| XX Pilot type | XX Voltage | X Lead wire length | X Manual operator | XX Electrical connector |
|---|--|-----------------------|---|--|
| M2 Muffled exhaust P2 Piped exhaust (M3) | DB 24VDC (1.0W) DC 24VDC (1.8W) DD 24VDC (2.5W) DF 24VDC (4.0W) DH 12VDC (1.0W) DJ 12VDC (1.8W) DK 12VDC (2.5W) DM 12VDC (4.0W) | P Base plug-in | 0 No manual operator 1 Recessed non locking 3 Extended non locking | FA Base plug-in FB Base plug-in w/LED FC Base plug-in w/MOV FD Base plug-in w/LED and MOV |

HOW TO ORDER CIRCUIT BAR

| Pilot size | Pilot | Base Electrical | Side cylinder ports | Bottom cylinder ports |
|------------|----------|------------------------------------|--|--|
| #10-32 UNF | Internal | Single solenoid Double solenoid | ECD24A-00DAA-A0XX ECD24A-00DAA-B0XX | ECD24A-00EAA-A0XX ECD24A-00EAA-B0XX |
| | External | Single solenoid Double solenoid | ECD24A-00DDA-A0XX ECD24A-00DDA-B0XX | ECD24A-00EDA-A0XX ECD24A-00EDA-B0XX |
| M5 | Internal | Single solenoid Double solenoid | ECD24A-00DAB-A0XX ECD24A-00DAB-B0XX | ECD24A-00EAB-A0XX ECD24A-00EAB-B0XX |
| | External | Single solenoid Double solenoid | ECD24A-00ddb-A0XX ECD24A-00ddb-B0XX | ECD24A-00EDB-A0XX ECD24A-00EDB-B0XX |
| M7 | Internal | Single solenoid Double solenoid | ECD24A-00DAC-A0XX ECD24A-00DAC-B0XX | ECD24A-00EAC-A0XX ECD24A-00EAC-B0XX |
| | External | Single solenoid Double solenoid | ECD24A-00DDC-A0XX ECD24A-00DDC-B0XX | ECD24A-00EDC-A0XX ECD24A-00EDC-B0XX |

XX = Number of stations

Note : Common inlet and exhaust ports are 1/4"

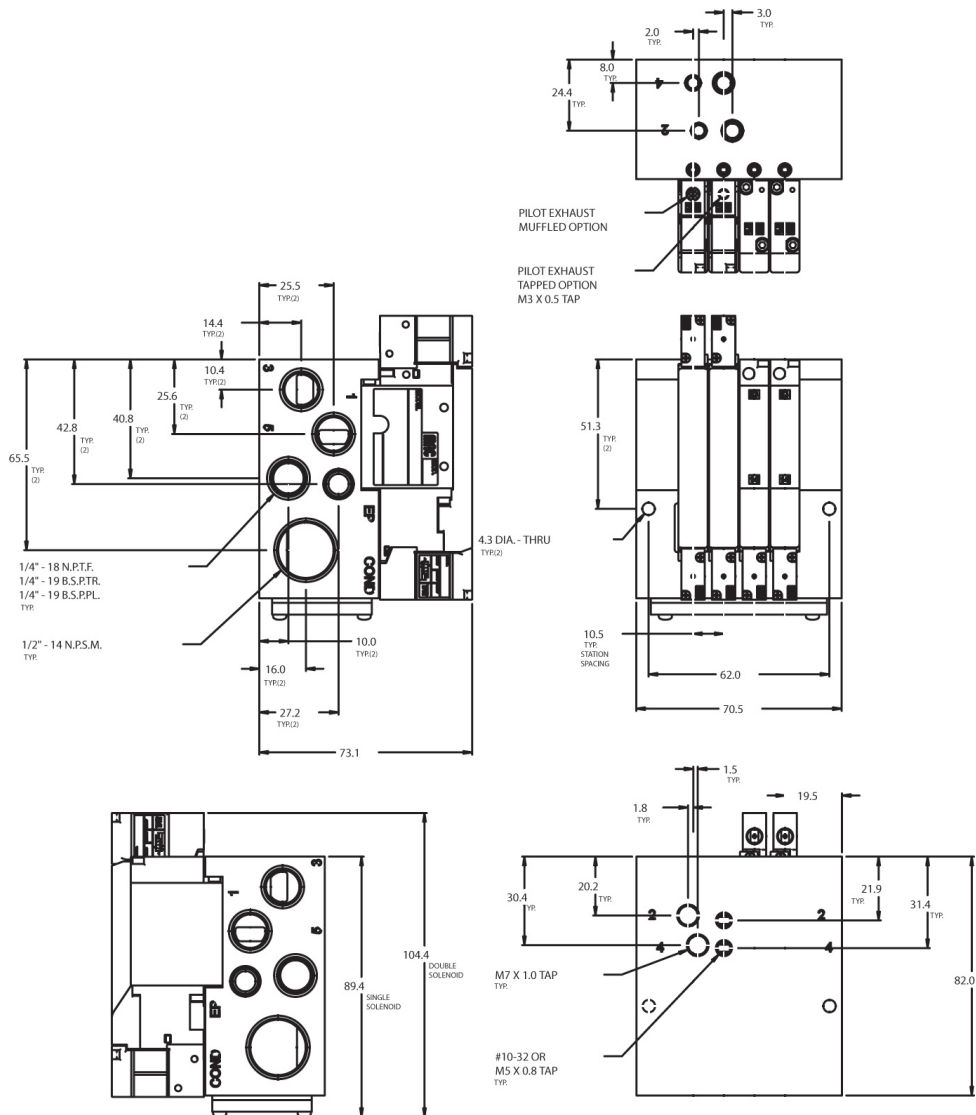
TECHNICAL DATA

| | |
|-----------------|---|
| Fluids: | Compressed air, vacuum, inert gases |
| Pressure range: | 2 position internal pilot: Single solenoid: 30 to 120 psi / 2 to 8 bar (air return), 35 to 120 psi / 2,3 to 8 bar (spring return) Double solenoid: 20 to 120 psi / 1,3 to 8 bar 2/3 position external pilot: vacuum to 120 psi / 8 bar 3 position internal pilot: 40 to 120 psi / 2,7 to 8 bar |
| Lubrication: | Not required, if used select a medium aniline point lubricant (between 180°F and 210°F / 80°C to 100°C) |
| Filtration: | 40µ |
| Flow: | Up to 0.40 Cv / 400 NI/min |
| Coil: | Class A (#26 AWG x 18), continuous duty |
| Voltage range: | -15% to +10% of nominal voltage |
| Power | 4.0W, 3.0W, 2.5W, 1.8W, 1.0W |

Spare parts : • Blank station cover plate : M-24004 • Base wire plug-in protector : 16942-01

DIMENSIONS

Dimensions shown are metric



| Function | Port size | Flow [Max]/[Cv/NI/min] | Circuit bar mounting |
|------------------|-----------------------|------------------------|-------------------------------|
| 5/2 - 5/3 | #10-32 -M5 -M7 | 0.40 / 400 | Plug-in - High profile |

OPERATIONAL BENEFITS

1. 10 mm valve – solenoid pilot operated.
2. Balanced spool, immune to variations of pressure.
3. Bonded spool with minimal friction.
4. Wiping effect, eliminates sticking.
5. Pilot valve with balanced poppet, high flow, short and consistent response times



HOW TO ORDER

HOW TO ORDER VALVE FOR CIRCUIT BAR MOUNTING

SINGLE PRESSURE MODELS

| Pilot air | 5/2 Single solenoid | 5/2 Double solenoid | 5/3 Closed Center | 5/3 Open Center |
|-----------|-------------------------|-------------------------|-------------------------|-------------------------|
| | | | | |
| Internal | 24A-AA-000-Exx-RxxP-xxx | 24A-BA-000-Exx-RxxP-xxx | 24A-EA-000-Exx-RxxP-xxx | 24A-FA-000-Exx-RxxP-xxx |
| External | 24A-AB-000-Exx-RxxP-xxx | 24A-BB-000-Exx-RxxP-xxx | 24A-EB-000-Exx-RxxP-xxx | 24A-FB-000-Exx-RxxP-xxx |

DUAL PRESSURE MODELS (Internal pilot only)

| Pilot air | 5/2 Single solenoid | 5/2 Double solenoid | 5/3 Pressure Center |
|-----------------------|-------------------------|-------------------------|-------------------------|
| | | | |
| Internal from port #3 | 24A-CG-000-Exx-RxxP-xxx | 24A-DG-000-Exx-RxxP-xxx | 24A-GG-000-Exx-RxxP-xxx |
| Internal from port #5 | 24A-CH-000-Exx-RxxP-xxx | 24A-DH-000-Exx-RxxP-xxx | 24A-GH-000-Exx-RxxP-xxx |

SOLENOID OPERATOR

E XX - R XX X - X XX

| XX Pilot type | XX Voltage | X Lead wire length | X Manual operator | XX Electrical connector |
|---|--|-----------------------|---|--|
| M2 Muffled exhaust P2 Piped exhaust (M3) | DB 24VDC (1.0W) DC 24VDC (1.8W) DD 24VDC (2.5W) DF 24VDC (4.0W) DH 12VDC (1.0W) DJ 12VDC (1.8W) DK 12VDC (2.5W) DM 12VDC (4.0W) | P Base plug-in | 0 No manual operator 1 Recessed non locking 3 Extended non locking | FA Base plug-in FB Base plug-in w/LED FC Base plug-in w/MOV FD Base plug-in w/LED and MOV |

Note : Flow controls are integral, regulator must be ordered separately (see next page)

HOW TO ORDER CIRCUIT BAR

| Pilot size | Pilot | Base Electrical | Bottom cylinder Ports w/side regulator | Bottom cylinder ports w/side flow controls |
|------------|----------|-----------------|--|--|
| #10-32 UNF | Internal | Single solenoid | ECD24A-00GAA-AOXX | ECD24A-00HAA-AOXX |
| | External | Double solenoid | ECD24A-00GAA-B0XX | ECD24A-00HAA-B0XX |
| M5 | Internal | Single solenoid | ECD24A-00GDA-AOXX | ECD24A-00HDA-AOXX |
| | | Double solenoid | ECD24A-00GDA-B0XX | ECD24A-00HDA-B0XX |
| | External | Single solenoid | ECD24A-00GAB-AOXX | ECD24A-00HAB-AOXX |
| | | Double solenoid | ECD24A-00GAB-B0XX | ECD24A-00HAB-B0XX |
| M7 | Internal | Single solenoid | ECD24A-00GDB-AOXX | ECD24A-00HDB-AOXX |
| | | Double solenoid | ECD24A-00GDB-B0XX | ECD24A-00HDB-B0XX |
| | External | Single solenoid | ECD24A-00GAC-AOXX | ECD24A-00HAC-AOXX |
| | | Double solenoid | ECD24A-00GAC-B0XX | ECD24A-00HAC-B0XX |
| | | Single solenoid | ECD24A-00GDC-AOXX | ECD24A-00HDC-AOXX |
| | | Double solenoid | ECD24A-00GDC-B0XX | ECD24A-00HDC-B0XX |

XX = Number of stations

Note : Common inlet and exhaust ports are 1/4"

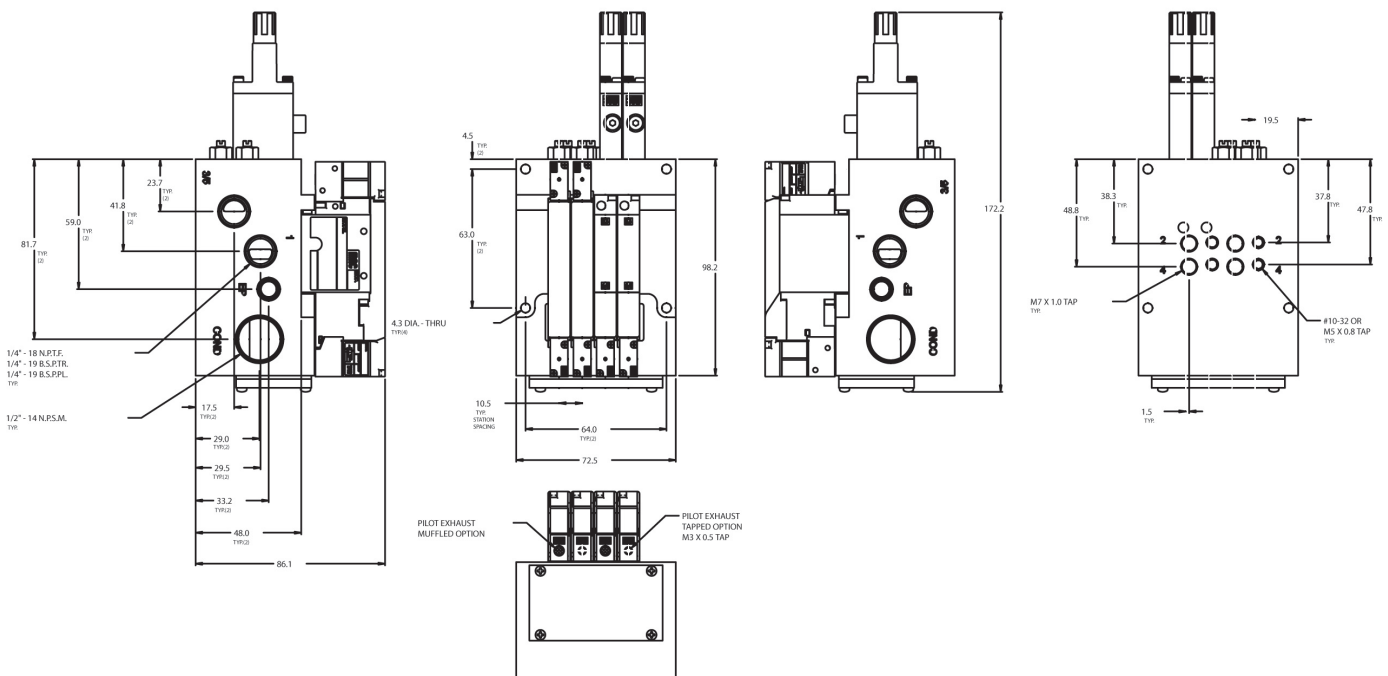
TECHNICAL DATA

| | |
|-----------------|---|
| Fluids: | Compressed air, vacuum, inert gases |
| Pressure range: | 2 position internal pilot: Single solenoid: 30 to 120 psi / 2 to 8 bar (air return), 35 to 120 psi / 2,3 to 8 bar (spring return) Double solenoid: 20 to 120 psi / 1,3 to 8 bar 2/3 position external pilot: vacuum to 120 psi / 8 bar 3 position internal pilot: 40 to 120 psi / 2,7 to 8 bar |
| Lubrication: | Not required, if used select a medium aniline point lubricant (between 180°F and 210°F / 80°C to 100°C) |
| Filtration: | 40µ |
| Flow: | Up to 0.40 Cv / 400 NI/min |
| Coil: | Class A (#26 AWG x 18), continuous duty |
| Voltage range: | -15% to +10% of nominal voltage |
| Power | 4.0W, 3.0W, 2.5W, 1.8W, 1.0W |

- Spare parts :
- Regulator : PR24A-COAX
 - A 0 to 120 psi / 8 bar
 - B 0 to 80 psi / 5,3 bar
 - C 0 to 40 psi / 2,7 bar
 - Gage kit : N-42004-01 • Blank station cover plate : M-24004
 - Base wire plug-in protector : 16942-01

DIMENSIONS

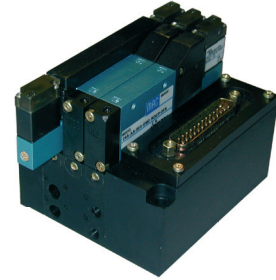
Dimensions shown are metric



| | | | |
|------------------|-------------------------|-------------------------------|--------------------------|
| Function | Port size | Flow [Max]/[Cv/NI/min] | Manifold mounting |
| 5/2 - 5/3 | #10-32 - H5 - H7 | 0.40 / 400 | MACconnect® |

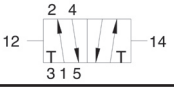
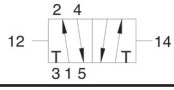
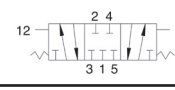
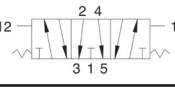
OPERATIONAL BENEFITS

1. 10 mm valve – solenoid pilot operated
2. Balanced spool, immune to variations of pressure.
3. Bonded spool with minimal friction.
4. Wiping effect, eliminates sticking.
5. Pilot valve with balanced poppet, high flow, short and consistent response times
6. Maximum of 16 solenoids powered by a single multi-pin connector.

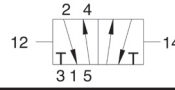
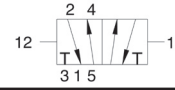
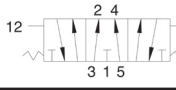


HOW TO ORDER

SINGLE PRESSURE MODELS (Side Ports)

| Port size | Pilot air | 5/2 Single solenoid | 5/2 Double solenoid | 5/3 Closed Center | 5/3 Open Center |
|------------------|-----------|--|--|---|--|
| | |  |  |  |  |
| Valve | Internal | 24A-AA-000-Exx-RxxP-xxx | 24A-BA-000-Exx-RxxP-xxx | 24A-EA-000-Exx-RxxP-xxx | 24A-FA-000-Exx-RxxP-xxx |
| less base | External | 24A-AB-000-Exx-RxxP-xxx | 24A-BB-000-Exx-RxxP-xxx | 24A-EB-000-Exx-RxxP-xxx | 24A-FB-000-Exx-RxxP-xxx |
| #10-32 | Internal | 24A-AA-AA1-Exx-RxxP-xxx | 24A-BA-AA2-Exx-RxxP-xxx | 24A-EA-AA2-Exx-RxxP-xxx | 24A-FA-AA2-Exx-RxxP-xxx |
| | External | 24A-AB-AA1-Exx-RxxP-xxx | 24A-BB-AA2-Exx-RxxP-xxx | 24A-EB-AA2-Exx-RxxP-xxx | 24A-FB-AA2-Exx-RxxP-xxx |
| M5 | Internal | 24A-AA-BA1-Exx-RxxP-xxx | 24A-BA-BA2-Exx-RxxP-xxx | 24A-EA-BA2-Exx-RxxP-xxx | 24A-FA-BA2-Exx-RxxP-xxx |
| | External | 24A-AB-BA1-Exx-RxxP-xxx | 24A-BB-BA2-Exx-RxxP-xxx | 24A-EB-BA2-Exx-RxxP-xxx | 24A-FB-BA2-Exx-RxxP-xxx |
| M7 | Internal | 24A-AA-CA1-Exx-RxxP-xxx | 24A-BA-CA2-Exx-RxxP-xxx | 24A-EA-CA2-Exx-RxxP-xxx | 24A-FA-CA2-Exx-RxxP-xxx |
| | External | 24A-AB-CA1-Exx-RxxP-xxx | 24A-BB-CA2-Exx-RxxP-xxx | 24A-EB-CA2-Exx-RxxP-xxx | 24A-FB-CA2-Exx-RxxP-xxx |

DUAL PRESSURE MODELS (Side ports)

| Port size | Pilot air | 5/2 Single solenoid | 5/2 Double solenoid | 5/3 Pressure Center |
|-------------------|-----------------------|---|--|---|
| | |  |  |  |
| Valve only | Internal from port #3 | 24A-CG-000-Exx-RxxP-xxx | 24A-DG-000-Exx-RxxP-xxx | 24A-GG-000-Exx-RxxP-xxx |
| less base | Internal from port #5 | 24A-CH-000-Exx-RxxP-xxx | 24A-DH-000-Exx-RxxP-xxx | 24A-GH-000-Exx-RxxP-xxx |
| #10-32 | Internal from port #3 | 24A-CG-AA1-Exx-RxxP-xxx | 24A-DG-AA2-Exx-RxxP-xxx | 24A-GG-AA2-Exx-RxxP-xxx |
| | Internal from port #5 | 24A-CH-AA1-Exx-RxxP-xxx | 24A-DH-AA2-Exx-RxxP-xxx | 24A-GH-AA2-Exx-RxxP-xxx |
| M5 | Internal from port #3 | 24A-CG-BA1-Exx-RxxP-xxx | 24A-DG-BA2-Exx-RxxP-xxx | 24A-GG-BA2-Exx-RxxP-xxx |
| | Internal from port #5 | 24A-CH-BA1-Exx-RxxP-xxx | 24A-DH-BA2-Exx-RxxP-xxx | 24A-GH-BA2-Exx-RxxP-xxx |
| M7 | Internal from port #3 | 24A-CG-CA1-Exx-RxxP-xxx | 24A-DG-CA2-Exx-RxxP-xxx | 24A-GG-CA2-Exx-RxxP-xxx |
| | Internal from port #5 | 24A-CH-CA1-Exx-RxxP-xxx | 24A-DH-CA2-Exx-RxxP-xxx | 24A-GH-CA2-Exx-RxxP-xxx |

SOLENOID OPERATOR

E XX - R XX X - X XX

| | | | | |
|---|--|---------------------------|---|---|
| XX Pilot type | XX Voltage | X Lead wire length | X Manual operator | XX Electrical connector |
| M2 Muffled exhaust P2 Piped exhaust (M3) | DB 24VDC (1.0W) DC 24VDC (1.8W) DD 24VDC (2.5W) DF 24VDC (4.0W) DH 12VDC (1.0W) DJ 12VDC (1.8W) DK 12VDC (2.5W) | P Base plug-in | 0 No manual operator 1 Recessed non locking 3 Extended non locking | FA Base plug-in FB Base plug-in w/ LED FC Base plug-in w/MOV FD Base plug-in w/MOV and LED |

OPTIONS

• Base type and configuration:

- 24A-XX-X **A** X-Exx-RxxP-xxx
A Manifold base – Side cylinder ports
B Manifold base – Bottom cylinder ports (no side cylinder ports)

• MACconnect® configuration

- 24A-XX-XX **1**-Exx-RxxP-xxx
1 Single solenoid – Plug-in to the left
2 Double solenoid – Plug-in to the left
3 Single solenoid – Plug-in to the right
4 Double solenoid – Plug-in to the right

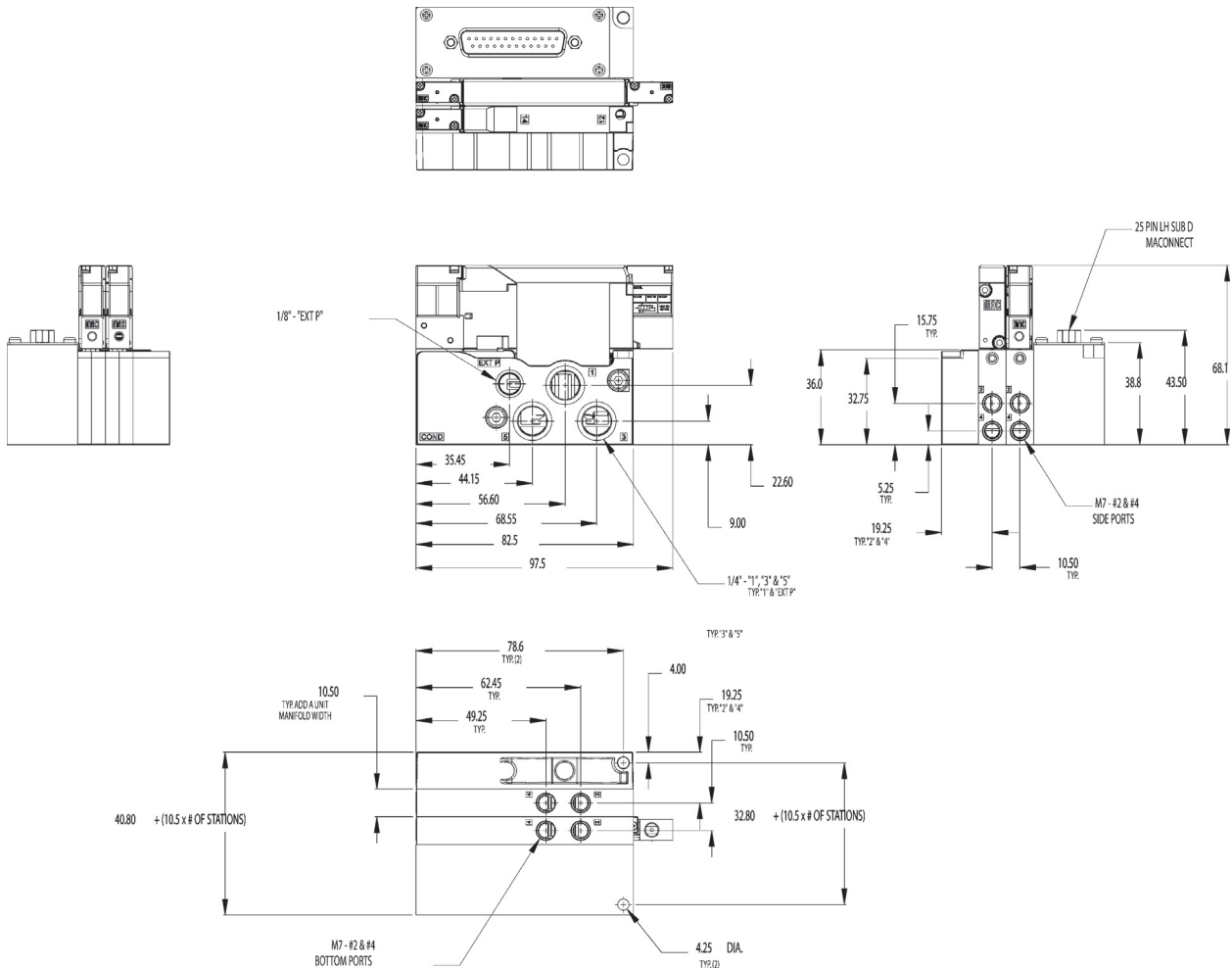
TECHNICAL DATA

| | |
|-----------------|--|
| Fluid: | Compressed air, vacuum, inert gases |
| Pressure range: | 2 position internal pilot: Single solenoid: 30 to 120 psi / 2 to 8 bar Double solenoid: 20 to 120 psi / 1,3 to 8 bar 2/3 position external pilot: vacuum to 120 psi / 8 bar 3 position internal pilot: 40 to 120 psi / 2,7 to 8 bar |
| Lubrication: | Not required, if used select a medium aniline point lubricant (between 180°F and 210°F / 80°C to 100°C) |
| Filtration: | 40µ |
| Flow: | Up to 0.40 Cv / 400 NI/min |
| Coil: | Class A (#26 AWG x 18), continuous duty |
| Voltage range: | -15% to +10% of nominal voltage |
| Power | 4.0W, 3.0W, 2.5W, 1.8W, 1.0W |

- Spare parts :
- Blank station cover plate: M-24004 • Inlet isolator: 28568
 - Exhaust isolator (Port #5): 28569 • Exhaust isolator (Port #3): 28570

DIMENSIONS

Dimensions shown are metric



MACConnect® adapter Assembly

M-24007- XX - X

- | | |
|---|---|
| <ul style="list-style-type: none"> 09 9 Pin Sub-D 10 10 Pin 15 15 Pin Sub-D 16 16 Pin 20 20 Pin 24 24 Pin Amp CPC 25 25 Pin Sub-D 26 26 Pin | <ul style="list-style-type: none"> 1 Left End 3 Right End |
|---|---|

Note: For negative commons, use MOD 7536 after model number

MACConnect® Fastening End Plate Kit

M-24006 - XX - 01X

- | | |
|--|--|
| <ul style="list-style-type: none"> 01 Left End of Stack – Internal pilot 02 Left End of Stack – External Pilot 03 Right End of Stack – Internal Pilot 04 Right End of Stack – External Pilot | <ul style="list-style-type: none"> Leave Blank for NPTF Threads P BSPPL Threads T BSPTR THreads |
|--|--|

Note: "01" should be used when the Fastening End Plate Kit is ordered separately. When the kit is ordered with an assembly this number will change to indicate the number of valves in the stack.

How to order MACConnect® Stack

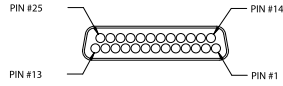
1. Determine the desired MACConnect® adapter assembly. The left end adapter is considered the first station in the stack and the right end adapter is considered the last station in the stack.
2. Choose the desired valves, make sure the valves are "plugging in" toward the adapter (i.e. adapter is located on the left end then valves must "plug-in" to the left).
3. Choose the appropriate fastening end plate kit. This end plate kit is located on the opposite end of the adapter (i.e. if adapter is located on the left end choose kit for right end of the stack).
4. Make sure the number of solenoids does not exceed 16.

Example:

| Quantity | Part number |
|----------|---|
| 1 | M-24007-25-1 (left end adapter) |
| 5 | 24A-AA-AA1-EM2-RDCP-1FA (Single solenoid plug-in to the left) |
| 4 | 24A-BA-AA2-EM2-RDCP-1FA (Double solenoid plug-in to the left) |
| 1 | M-24006-03-09 (end plate kit on right end of stack) |

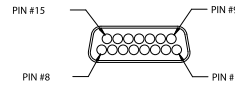
Note: total number of solenoids is 13.

CONNECTOR OPTIONS



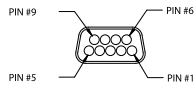
| PIN # | SOLENOID # |
|-------|------------|
| 1 | 1 |
| 2 | 2 |
| ~ | ~ |
| 16 | 16 |
| 21 | + COMMON |
| 22 | + COMMON |
| 23 | + COMMON |
| 24 | + COMMON |
| 25 | + COMMON |

25 PIN SUB-D



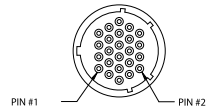
| PIN # | SOLENOID # |
|-------|------------|
| 1 | 1 |
| 2 | 2 |
| ~ | ~ |
| 13 | 13 |
| 14 | + COMMON |
| 15 | + COMMON |

15 PIN SUB-D



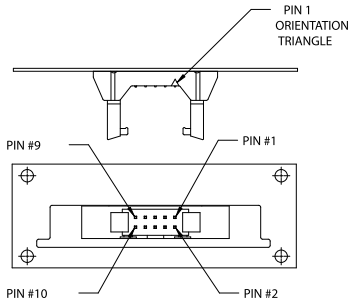
| PIN # | SOLENOID # |
|-------|------------|
| 1 | 1 |
| 2 | 2 |
| ~ | ~ |
| 8 | 8 |
| 9 | + COMMON |

9 PIN SUB-D



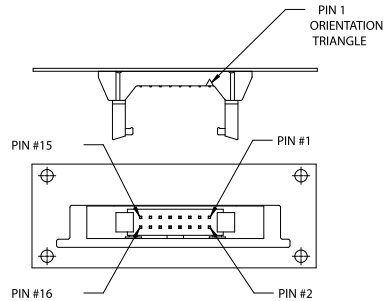
| PIN # | SOLENOID # |
|-------|------------|
| 1 | 1 |
| 2 | 2 |
| ~ | ~ |
| 20 | 20 |
| 21 | + COMMON |
| 22 | + COMMON |
| 23 | + COMMON |
| 24 | + COMMON |

24 PIN AMP CPC



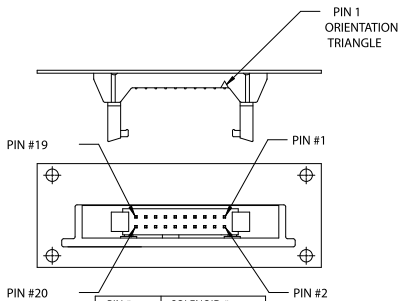
| PIN # | SOLENOID # |
|-------|------------|
| 1 | 1 |
| 2 | 2 |
| ~ | ~ |
| 8 | 8 |
| 9 | + COMMON |
| 10 | + COMMON |

10 PIN



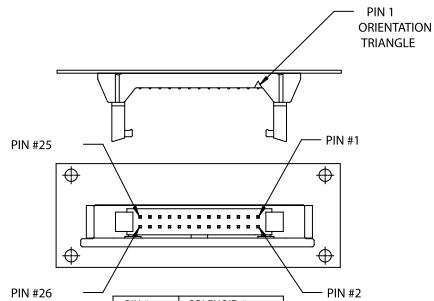
| PIN # | SOLENOID # |
|-------|------------|
| 1 | 1 |
| 2 | 2 |
| ~ | ~ |
| 12 | 12 |
| 13 | + COMMON |
| 14 | + COMMON |
| 15 | + COMMON |
| 16 | + COMMON |

16 PIN



| PIN # | SOLENOID # |
|-------|------------|
| 1 | 1 |
| 2 | 2 |
| ~ | ~ |
| 16 | 16 |
| 17 | + COMMON |
| 18 | + COMMON |
| 19 | + COMMON |
| 20 | + COMMON |

20 PIN



| PIN # | SOLENOID # |
|-------|------------|
| 1 | 1 |
| 2 | 2 |
| ~ | ~ |
| 16 | 16 |
| 21 | + COMMON |
| 22 | + COMMON |
| 23 | + COMMON |
| 24 | + COMMON |
| 25 | + COMMON |
| 26 | + COMMON |

26 PIN

Sandwich pressure regulators with manual adjust knob

OPERATIONAL BENEFITS

1. Easy mounting: saves on installation costs in comparison with inline regulators
2. Compact all-included units.
3. Large orifice provides high flow
4. Various functions available
5. Simple, reliable and solid design



HOW TO ORDER

NON PLUG-IN SANDWICH REGULATORS (with gage port)

| Pilot air | Single pressure Regulator "12" end | Dual pressure * Regulator both ends |
|-----------|------------------------------------|-------------------------------------|
| Internal | PR24A-BAAA | PR24A-BCAA |
| External | PR24A-BBAA | PR24A-BDAA |

PLUG-IN SANDWICH REGULATORS (with gage port)

| Single pressure Regulator "12" end Internal pilot | Single pressure Regulator "12" end External pilot |
|---|---|
| PR24A-AAAA | PR24A-ABAA |

* For use with dual pressure valves.

OPTIONS

Pressure range:

PR24A-xxx **X**

| | |
|----------|-----------------------|
| A | 0 to 120 PSI / 8 bar |
| B | 0 to 80 PSI / 5,3 bar |
| C | 0 to 40 PSI / 2,7 bar |

Notes:

- External pilot regulator required only when supply pressure (primary) to the valve is below the minimum operating pressure of the 24 series valve.
- When an internal pilot regulator is used with the 24 series valve, the valve should be ordered as external pilot. This ensures that the pilot supply is not regulated. If an internal pilot valve is used with an internal pilot regulator, the pilot supply is regulated.

TECHNICAL DATA

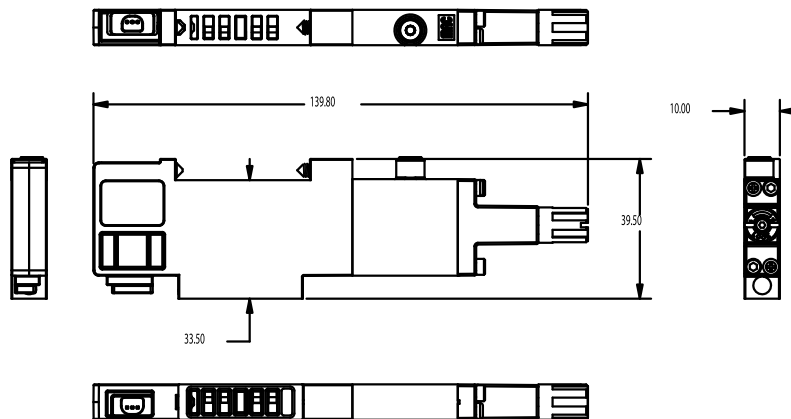
| | |
|--------------------|---|
| Fluids: | Compressed air, vacuum, inert gases |
| Pressure range: | 0 to 120 PSI / 8 bar |
| Regulating range: | 0 to 120 PSI / 8 bar |
| Lubrication: | Not required, if used select a medium aniline point lubricant (between 180°F and 210°F / 80°C to 100°C) |
| Filtration: | 40μ |
| Coil: | Class A (#26 AWG x 18), continuous duty |
| Temperature range: | 0°F to 120°F / -18°C to +50°C |

- Spare parts:
- Gage Kit No coupling: N-42004-01
 With short coupling: N-42004-02 (required with double solenoid valve)
 With long coupling: N-42004-03 (required with double solenoid valve)
 - Sandwich flow control Plug-in with flow control on same end: FC24A-AB
 Non plug-in with flow control on same end: FC24A-BB
 Non plug-in with flow control on each end: FC24A-CA

DIMENSIONS

Dimensions shown are metric

Single regulator



Double regulator

