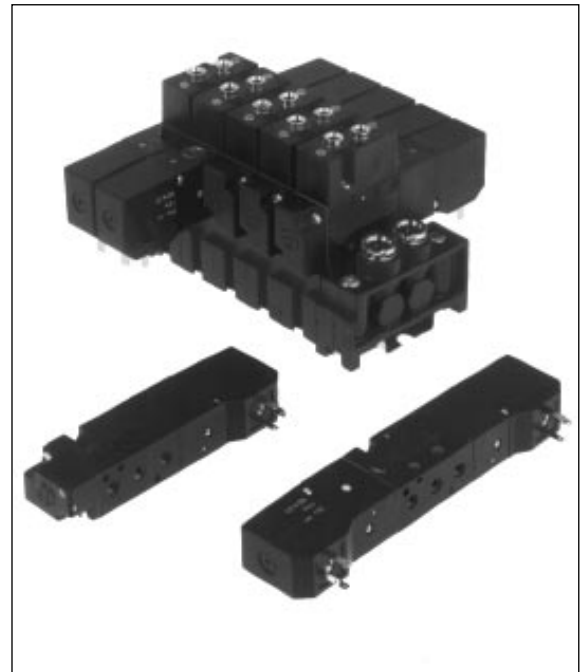


**Integrally Ported 5/2 and 5/3 Spool Valves
Solenoid Actuated and Pilot Operated
Ø 4, Ø 6mm or M5**

- High flow from 17 mm body width
- Low power solenoids with a range of voltages
- Use valves singly or with Base Systems
- Low profile fixed length manifolds
- Modular manifolds can be DIN rail or surface mounted


Technical Data
Medium:

Compressed air, filtered to 40µm lubricated and non-lubricated

Operation:

Spool valve, indirectly actuated

Mounting:

Through-holes in valve body or to 35 mm DIN rail using modular base system

Port Sizes:

M5, Ø 4 mm and Ø 6 mm (with connector blocks)

Operating Pressure:

Maximum 10 bar

See individual details overleaf

Flow Characteristics:

| Size | Function | 'C' | 'b' | 'A' | l/min | Cv | Kv |
|-------|----------|------|------|------|-------|------|------|
| M5 | 5/2 | 1 | 0,55 | 4,23 | 256 | 0,26 | 0,22 |
| Ø 4mm | 5/2 | 0,9 | 0,54 | 3,74 | 226 | 0,23 | 0,2 |
| Ø 6mm | 5/2 | 1,4 | 0,42 | 5,7 | 344 | 0,35 | 0,3 |
| M5 | 5/3 APB | 1,22 | 0,32 | 4,89 | 296 | 0,3 | 0,26 |

Ambient Temperature:

-20°C to +80°C Pilot Models

-20°C to +50°C Solenoid Models

*Consult our Technical Service for use below +2°C

Materials

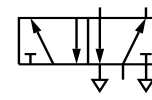
Zinc alloy body, glass filled end caps, aluminium spool with bonded nitrile rubber seals, and glass filled co-polymer bases.

Ordering Information

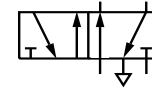
To order, quote model number and voltage code from tables overleaf, e.g. V085516A–B213A for a Solenoid Pilot Actuated, Spring and Air Return model fitted with a 24 V d.c. coil and screwdriver operated manual override.

Multipole Systems

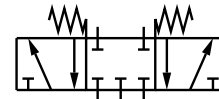
For complete Valve Islands see section 5.4.112



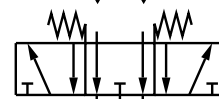
5/2



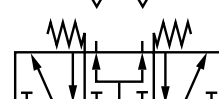
5/2 Twin Supply



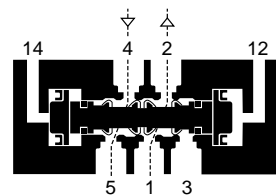
5/3
All ports blocked mid position



5/3
Centre open exhaust mid position



5/3 Centre open pressure mid position





General Information
5/2 Solenoid Actuated Valves

| Symbol | Model | Manual Override | Solenoid Pilot | Operator | Return | Operating Pressure (bar) | Pilot Pressure (bar) | Weight (kg) | Spares kit |
|--------|----------------|-----------------------|----------------|----------|----------------|--------------------------|----------------------|-------------|------------|
| | V085516A-B21*A | Screwdriver Bi-stable | Internal | Solenoid | Spring and Air | 3 - 10 | - | 0,155 | V10034-K00 |
| | V085516A-B31*A | Push Only | | | | | | | |
| | V085511A-B21*A | Screwdriver Bi-stable | Internal | Solenoid | Solenoid | 2 - 10 | - | 0,198 | V10034-K00 |
| | V085511A-B31*A | Push Only | | | | | | | |

*Insert voltage code from table below.

5/3 Solenoid Actuated Valves

| Symbol | Model | Manual Override | Pilot Supply | Operator | Mid Position | Return | Operating Pressure (bar) | Pilot Pressure (bar) | Weight (kg) | Spares kit |
|--------|----------------|-----------------------|--------------|----------|--------------|----------|--------------------------|----------------------|-------------|------------|
| | V085611A-B21*A | Screwdriver Bi-stable | Internal | Solenoid | APB | Solenoid | -0,9 - 10 | - | 0,158 | V10034-K01 |
| | V085611A-B31*A | Push Button | | | | | | | | |
| | V085711A-B21*A | Screwdriver Bi-stable | Internal | Solenoid | COE | Solenoid | -0,9 - 10 | - | 0,158 | V10034-K02 |
| | V085711A-B31*A | Push Button | | | | | | | | |
| | V085811A-B21*A | Screwdriver Bi-stable | Internal | Solenoid | COP | Solenoid | -0,9 - 10 | - | 0,158 | V10034-K03 |
| | V085811A-B31*A | Push Button | | | | | | | | |

*Insert voltage code from table below.

Pilot Actuated Valves

| Symbol | Model | Manual Override | Operator | Mid-Position | Return | Operating Pressure (bar) | Pilot Pressure (bar) | Weight (kg) | Spares kit |
|--------|----------------|-----------------|----------------|--------------|----------------|--------------------------|----------------------|-------------|------------|
| | V085536A-X0130 | - | Pressure | - | Spring and Air | 2 - 10 | 1,5 + 0,5 x supply | 0,152 | V10034-K00 |
| | V085533A-X0020 | - | Pressure | - | Pressure | 1 - 10 | 2 - 10 | 0,141 | V10034-K00 |
| | V085633A-X0020 | - | Pressure | APB | Spring and Air | 1 - 10 | Minimum 2 bar | 0,119 | V10034-K01 |
| | V085733A-X0020 | - | Pressure | COE | Spring and Air | 1 - 10 | Minimum 2 bar | 0,119 | V10034-K02 |
| | V085833A-X0020 | - | Pressure | COP | Spring and Air | 1 - 10 | Minimum 2 bar | 0,119 | V10034-K03 |
| | V085533A-X0060 | - | Pilot Priority | - | Pilot | -0,9 - 10 | Minimum 2 bar | 0,119 | V10034-K00 |

APB = All Ports Blocked, COE = Centre Open Exhaust, COP = Centre Open Pressure.

***Voltage Codes and Spare Coils**

| Voltage | Codes | Power Inrush/Hold | Coil Part Number |
|--------------|-------|-------------------|------------------|
| 6V d.c. | 1 | 1,5 W | V10025-A11 |
| 12V d.c. | 2 | 1,7 W | V10025-A12 |
| 24V d.c. | 3 | 1,7 W | V10025-A13 |
| 12V 50/60Hz | 1 | 4,1/2,9 VA | V10025-A11 |
| 24V 50/60Hz | 4 | 4,1/2,9 VA | V10025-A14 |
| 48V 50/60Hz | 6 | 4,1/2,9 VA | V10025-A16 |
| 110V 50/60Hz | 8 | 3,5/2,5 VA | V10025-A18 |
| 240V 50/60Hz | 9 | 3,5/2,5 VA | V10025-A19 |

Electrical Details for Solenoid Operators

| | |
|------------------------|---|
| Voltage Tolerances: | ±10% |
| Rating: | 100% E.D. |
| Inlet Orifice: | 0,8 mm |
| Electrical Connection: | DIN 43650 table 'C' |
| Manual Override: | V0855 - A-B21*A - Screwdriver Bi-stable V0855 - A-B31*A - Push button, spring return |
| Protection Class: | IP 65 (DIN 40050) |

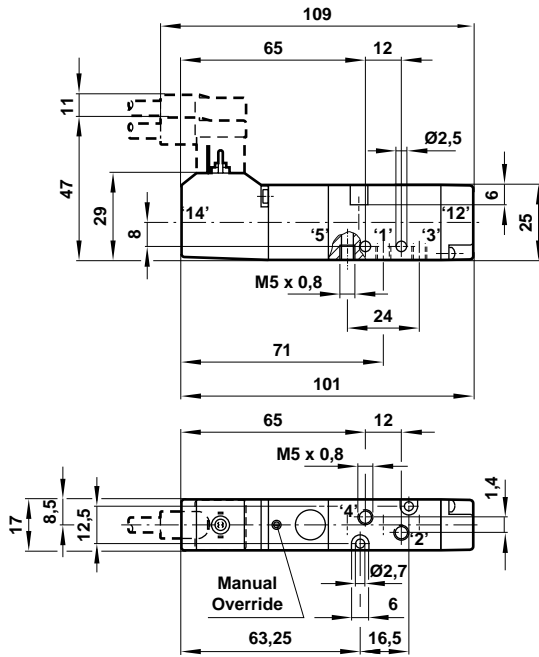
For details of connector plugs and light emitting seals see section 7.7.001.

Accessories

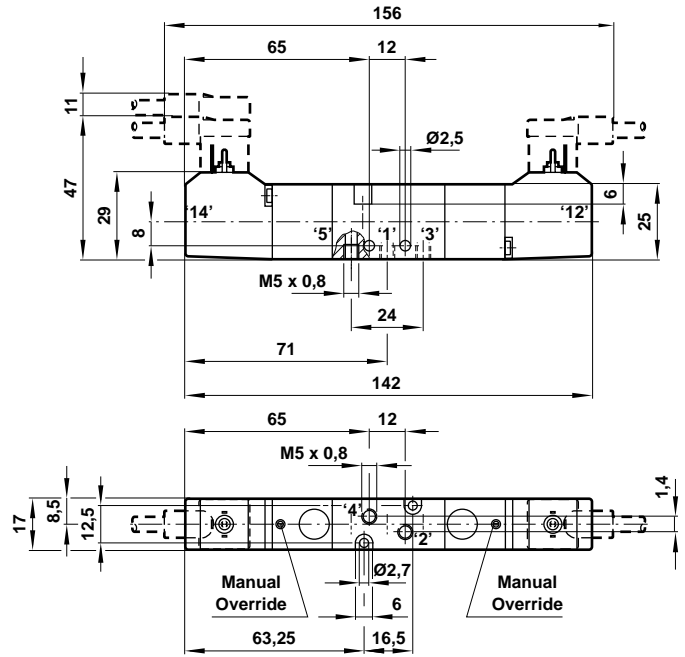
| | | | | |
|--------------------------------|----------------|-----------------------|--------------------|---------------|
| | | | | |
| Optional Port Connector Blocks | Blanking Plate | Optional Tie Rod Kits | DIN Rail | Blanking Plug |
| V085516A-Q0404, Ø4 mm | V095516A-Q1100 | V085516A-Q0302-0316 | V10009-C00 1 metre | V10511-K01 |
| V085516A-Q0404, Ø6 mm | - | - | - | - |



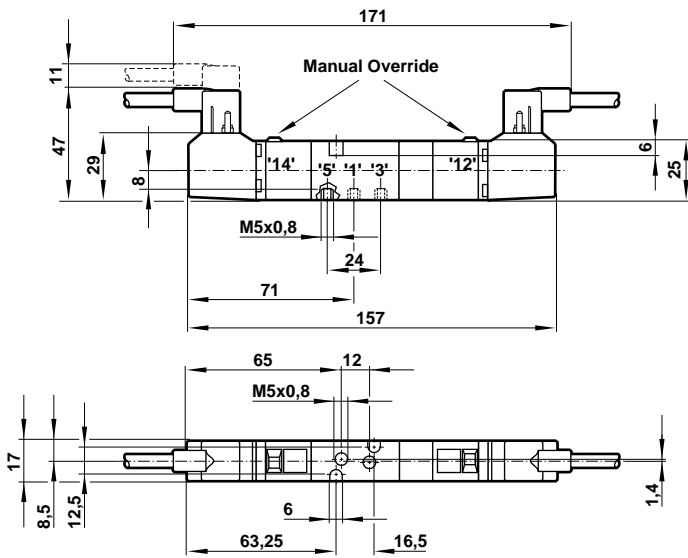
V085516A Models
5/2 Single Solenoid Valve



V085511A Models
5/2 Double Solenoid Valve

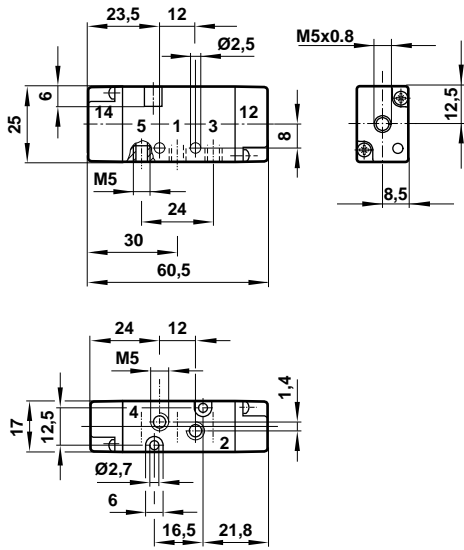


V085*11A-B21*A Model
5/3 Double Solenoid Valve

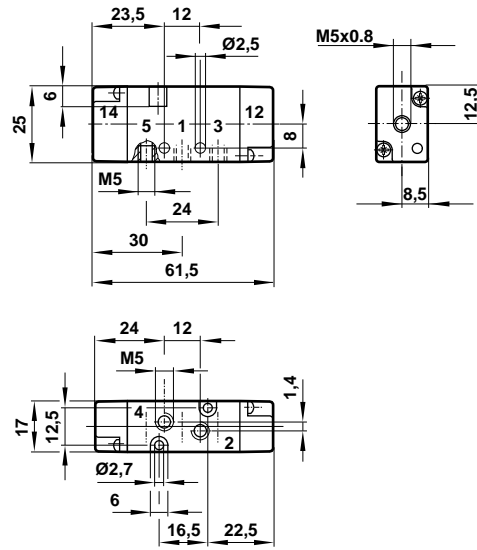




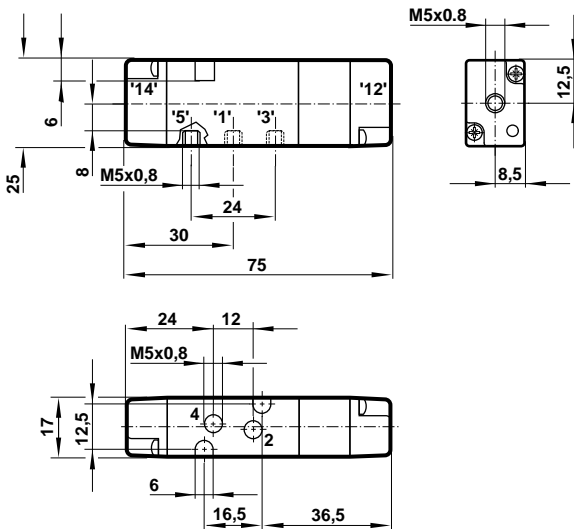
V085536A-X0130 Model
5/2 Single Pilot Valve



V085533A-X0020 and V085533A-X0060
5/2 Double Pilot Valves

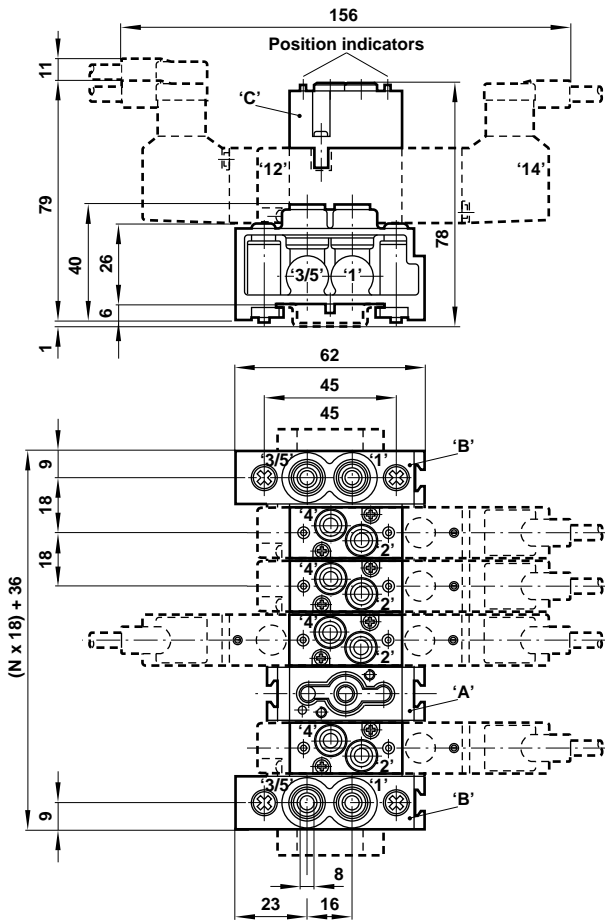


V085*33A-X0020 Model
5/3 Double Pilot Valve





Modular Manifold for DIN rail or surface mounting



N = Number of stations

Manifold Block (A)

V085516A-Q01A8 Single Station Manifold Block

End Plate Kit (B)

V085516A-Q02A8

Consisting of 1 left hand and 1 right hand end cap with push-in connectors and DIN rail mounting system
Size: Ø 8 mm tube

Optional Port Connector Blocks (C)

Push-in port connector block with integral position indicators

V085516A-Q0404 Size: Ø 4 mm tube

V085516A-Q0406 Size: Ø 6 mm tube

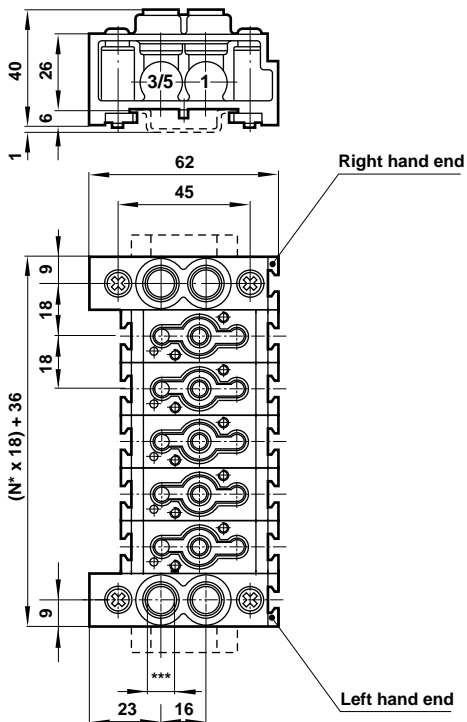
Tie Rod Kits

V085516A-Q03**

** = Number of stations in manifold, 02 to 16.

Pillar screws supplied as standard with Manifold Blocks and End Plate kits. Tie Rod Kits are an optional extra.

Modular Manifold assemblies for DIN rail or surface mounting



N = Number of stations

*** For Ø8 mm tube

Modular Manifold Assemblies

V088AX-XXXXX**

Manifold assemblies for 2 to 16 stations, ** = 02 to 16.
Size: Ø 8 mm tube

Dual Pressure Modular Manifold assemblies

V088AX-**XXX**

Manifold assemblies for 2 to 16 stations, allows supply of two different inlet pressures simultaneously

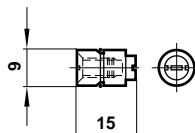
Size: Ø 8 mm tube

** = 1 to 15 to indicate position of Dual Pressure Plug, e.g V088AX03-07XX indicates a 10 station base divided into groups of 3 and 7.

Dual Pressure Plug

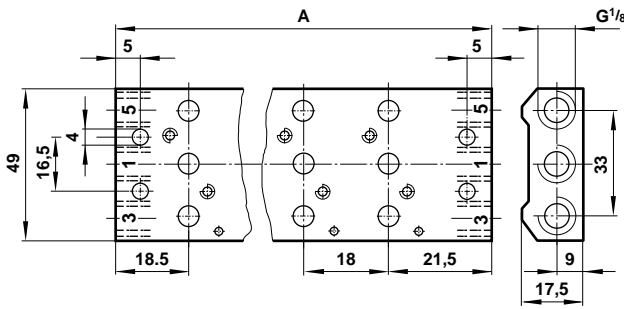
V085516A-Q05AA

To be placed in the inlet gallery



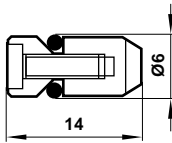


Fixed Length Manifold



| Type | No. of stations | A |
|--------------|-----------------|-----|
| V10026 – G02 | 2 | 58 |
| V10026 – G04 | 4 | 94 |
| V10026 – G06 | 6 | 130 |
| V10026 – G08 | 8 | 166 |
| V10026 – G10 | 10 | 202 |
| V10026 – G12 | 12 | 238 |

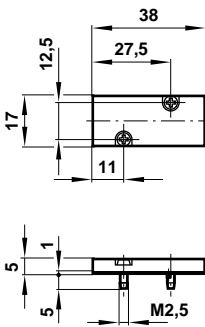
Note: Gaskets and valve fixing screws are supplied with these manifolds.



Blanking Plugs

V10511-K01

For dual pressure supply on Fixed Length Manifold.



Blanking Plate

V095516A-Q1100

Blanking Plate for blocking off unwanted stations.

Accessories

Connector plugs and light emitting seals see section 7.7.001.

Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where *pressures* and *temperatures* can exceed those listed under 'Technical Data'.

Before using these products with fluids other than those specified, for non-industrial applications, life-support systems, or other applications not within published specifications, consult NORGREN.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes. The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.