VR10 / VR15 Series for Multipole (IP65) Valve Island

Installation and Maintenance Quick Guide



SAFETY, WARNINGS

This product is intended for use in industrial compressed air or hydraulic system only. Do not use this product where pressures and temperatures can exceed those under 'Technical Data'.

Before using this product with fluids other than those specified, for non-industrial applications, life-support systems, or other applications not within published specifications, consult nice appr. Tregate mission as expression to the minimum point accession of the point of the constant of the point of the p 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 specification warnings found in instruction sheets packed and shipped with this product

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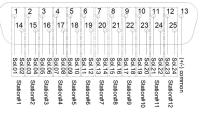
Tightening torque:

M2: 0 15~0 2 Nm (1 3~1 8 lbf-in) M3: 0.4~0.5 Nm (3.5~4.4 lbf·in) M4: 0.7~0.8 Nm (6.2~7.1 lbf·in) Port identification Port / Identification Function Main / Internal pilot air supply E/3/5 Exhaust Outlet A/48B/2 External pilot air supply (if used) 12/14 Collected exhaust of pilot valves 82/84

WIRING RULES FOR MULTIPOLE SERIES

The Multipole has 25 pins, and the output follows the rules below: . If valve stations ≤ 12, 2 pins are always reserved for each valve station* (see table below), but for the station with single solenoid, only Pin No. of Solenoid A (14 Solenoid) is connected.

Station	1	2	3	4	5	6	7	8	9	10	11	12
Pin No. of Sol. A	1	2	3	4	5	6	7	8	9	10	11	12
Pin No. of Sol. B	14	15	16	17	18	19	20	21	22	23	24	25
* The one n Mapping re												



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Specific warnings:

. Check that the specification of the Valve Island and marking on the item of the equipment are suitable for the application being used on.

 Check technical data, such as operating pressure, voltage level, current type and
temperature, on the product label or in the data sheets for compliance with the existing operating conditions.

After removing the packaging, ensure that no contamination enters into the system.
Check before the installation of the system that no contamination exists in the piping and

- Check during installation of the system that gaskets have not become damaged.
- Take measures to avoid unintentional or improper activation.
 Prior to the first electrical operation, ensure no danger would result from the medium
- exhausting from any open ports.
 Consider in case of pressurised systems that lines, valves and other components should
- not be removed. · To avoid damaging the product, please make sure that the maximum torque values are not exceed
- · IMPORTANT: Always switch off the air supply, exhaust the residual pressure and unplug all electrical connections before performing any maintenance.
- Ensure the machine is in a safe condition before operating manual over
- Pay due course and attention to the different polarity types available PNP/NPN. · A polarity protection diode is built in: Incorrect polarity does not cause a short circuit and does not require replacement valve slices. In this case only LED indicator works, but not valve slices



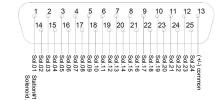
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- . If 12 < valve stations ≤ 24, special rules are required since only 1 pin is allocated to valve station with single solenoid.
- Step 1: Sequence all solenoids following the rules below by starting from 1st station which is the station closest to control module: - If 1st station is with double solenoids, sequence solenoid A as Sol.01, solenoid B as
- Sol.02, following the 2nd station solenoid A sa Sol.03, solenoid B as Sol.04, If 1st station is with single solenoid, sequence solenoid A as Sol.01, following 2nd
- station solenoid A as Sol.02, solenoid B as Sol.03..... If a station is originally configured as blank, always 2 solenoid numbers are allocated.
- The rest of stations should also adhere to the sequence rules above. Step 2: Map each Sol. sequence to Pin No. of D-Sub Connector (see illustration below):



An example (Valve Island with 14 stations) is shown below.



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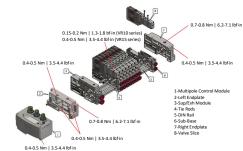


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Valve Island

Medium: Compressed air, filtered (40µm) lubricated or non-lubricated Operating pressure: Piloting pressure: +2 to +7 bar (+29 psi to +101 psi) Operating pressure (Internal pilot supply): +2 to +7 bar (+29 psi to +101 psi) Operating pressure (External pilot supply): -1 to +7 bar (-14.5 psi to +101 psi) Operating temperature: -5°C to +50°C (+23°F to +122°F) * Air supply must be dry enough to avoid ice formation below +2°C (+35°F) **Power Supply**: 24V DC +/- 10% / 12V DC +/- 10% Polarity type: PNP (-com) or NPN (+com) for 24V DC PNP (-com) for 12V DC

INSTALLATION



Notes:

 Lubrication: Valves will function reliably when they are supplied with clean dry air either lubricated or non-lubricated. If the air supply is lubricated, then lubrication must be supplied during the life of the product.

Vibration: In applications where there is significant vibration, the axis of the spool (longitudinal axis of the valve) should be at 90° to the direction of the motion.

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PIN ALLOCATING & WIRE COLOURS IDENTIFYING

Pin no.	Wire colour	Solenoid	Pilot	Station
1	White	Solenoid 1-a	14	1
2	Brown	Solenoid 2-a	14	2
3	Green	Solenoid 3-a	14	3
4	Yellow	Solenoid 4-a	14	4
5	Grey	Solenoid 5-a	14	5
6	Pink	Solenoid 6-a	14	6
7	Blue	Solenoid 7-a	14	7
8	Red	Solenoid 8-a	14	8
9	Black	Solenoid 9-a	14	9
10	Violet	Solenoid 10-a	14	10
11	Grey/Pink	Solenoid 11-a	14	11
12	Red/Blue	Solenoid 12-a	14	12
13	White/Green	Common		
14	Brown/Green	Solenoid 1-b	12	1
15	White/Yellow	Solenoid 2-b	12	2
16	Yellow/Brown	Solenoid 3-b	12	3
17	White/Grey	Solenoid 4-b	12	4
18	Grey/Brown	Solenoid 5-b	12	5
19	White/Pink	Solenoid 6-b	12	6
20	Pink/Brown	Solenoid 7-b	12	7
21	White/Blue	Solenoid 8-b	12	8
22	Brown/Blue	Solenoid 9-b	12	9
23	White/Red	Solenoid 10-b	12	10
24	Brown/Red	Solenoid 11-b	12	11
25	White/Black	Solenoid 12-b	12	12

 This table is based on the female D-Sub cables that NORGREN supplies, IP65 version Part Numbers of D-Sub cables: 1) V11569-E01, 2) V11569-E03, 3) V11569-E05.
 The example (in the columns of Solenoid, Pilot, Station) is based on the configuration of

12 stations, double solenoids Construction & Design is subject to change (A1743-IOM-M6 / Rev.002



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