Medium: Compressed air, filtered lubricated or non lubricated
Operation: Solenoid actuated spool valves
Operating pressure: 3 ..., 10 bar (43,5 ..., 145 psi)
Details see following pages

Flow: 950 ... 1300 l/min
Flow direction: Internal pilot supply fixed
Air ports: Flange pattern, see page 4 ... 6
Mounting position: Spring return valves, preferably horizontal

Ambient/Media temperature:
- Versions 3/2 & 5/2 WV; solenoid/spring & solenoid/solenoid:
  -40 ... +65°C (-40 ... +149°F)
- Versions 3/2 & 5/2 WV; solenoid/air spring:
  -25 ... +65°C (-13 ... +149°F)
- Versions 2x3/2 WV; solenoid/solenoid:
  -20 ... +65°C (-4 ... +149°F)

Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F).

Materials:
- Housing and base plate: aluminium
- Spindle: stainless steel
- Piston, spacers and cover: synthetic material, aluminium
- Static and dynamic seals: NBR/VMQ
- Screws: zinc plated
- Springs: stainless steel

Technical features
- Flange version
- High flow rate
- Proven sealing system using Herion experience in the chemical and process industry
- Maintenance-free
- Optional manual overrides
- Wide temperature range
- Shock and vibration tested to EN 61373, Category 1, class A and B

Electrical details for solenoid operators

<table>
<thead>
<tr>
<th>Voltage tolerance</th>
<th>± 30%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power consumption</td>
<td>4.5 ... 5.4 W (12, 24, 36, 72, 85, 110 V d.c.), details see page 4</td>
</tr>
<tr>
<td>Rating</td>
<td>100 % ED</td>
</tr>
<tr>
<td>Protection class</td>
<td>IP 65 with sealed plugs (ISO 6952)</td>
</tr>
<tr>
<td>Manual override</td>
<td>Push only - Standard</td>
</tr>
<tr>
<td>Solenoid</td>
<td>4 x 90° rotate</td>
</tr>
<tr>
<td>Solenoid plug interface</td>
<td>Type A, EN 175301-803 (DIN 43650)</td>
</tr>
<tr>
<td>Material</td>
<td>Thermosat (body), NBR (seals)</td>
</tr>
</tbody>
</table>
### 3/2 directional control valves, solenoid actuated

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Port size</th>
<th>Function</th>
<th>Actuation/return</th>
<th>Pilot supply</th>
<th>Flow (l/min)</th>
<th>Operating pressure (bar)</th>
<th>Pilot pressure (bar)</th>
<th>Weight (kg)</th>
<th>Drawing No.</th>
<th>Model *1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flange</td>
<td>NC</td>
<td>Solenoid/spring</td>
<td>internal</td>
<td>1300</td>
<td>3 ... 10</td>
<td>–</td>
<td>0,29</td>
<td>1</td>
<td>VR61Z417A-D#*</td>
<td></td>
</tr>
</tbody>
</table>

# Insert code for manual override. Note: Standard option is 3 = push only, see page 3

* Insert voltage code from table on page 3

NC = Normally closed

### 5/2 directional control valves, solenoid actuated

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Port size</th>
<th>Function</th>
<th>Actuation</th>
<th>Pilot supply</th>
<th>Flow (l/min)</th>
<th>Operating pressure (bar)</th>
<th>Pilot pressure (bar)</th>
<th>Weight (kg)</th>
<th>Drawing No.</th>
<th>Model *1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flange</td>
<td>NC</td>
<td>Solenoid/spring</td>
<td>internal</td>
<td>1300</td>
<td>3 ... 10</td>
<td>–</td>
<td>0,29</td>
<td>3</td>
<td>VR61Z517A-D#*</td>
<td></td>
</tr>
</tbody>
</table>

# Insert code for manual override. Note: Standard option is 3 = push only, see page 3

* Insert voltage code from table on page 3

### 3/3 directional control valves, solenoid actuated

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Port size</th>
<th>Function</th>
<th>Actuation</th>
<th>Pilot supply</th>
<th>Flow (l/min)</th>
<th>Operating pressure (bar)</th>
<th>Pilot pressure (bar)</th>
<th>Weight (kg)</th>
<th>Drawing No.</th>
<th>Model *1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flange</td>
<td>APB</td>
<td>Solenoid/solenoid</td>
<td>internal</td>
<td>950</td>
<td>3 ... 10</td>
<td>–</td>
<td>0,47</td>
<td>5</td>
<td>VR61Z511A-D#*</td>
<td></td>
</tr>
</tbody>
</table>

# Insert code for manual override. Note: Standard option is 3 = push only, see page 3

* Insert voltage code from table on page 3

APB = All ports blocked

CDE = Centre open exhaust

COP = Centre open pressure
Option selector
(directional control valves, solenoid actuated)

<table>
<thead>
<tr>
<th>Function</th>
<th>Substitute</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/2 - NC</td>
<td>4</td>
</tr>
<tr>
<td>5/2</td>
<td>5</td>
</tr>
<tr>
<td>5/3 - APB</td>
<td>6</td>
</tr>
<tr>
<td>5/3 - COE</td>
<td>7</td>
</tr>
<tr>
<td>5/3 - COP</td>
<td>8</td>
</tr>
</tbody>
</table>

VR61Z★★★A-D★★★N

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Substitute</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 V d.c.</td>
<td>22</td>
</tr>
<tr>
<td>24 V d.c.</td>
<td>23</td>
</tr>
<tr>
<td>36 V d.c.</td>
<td>24</td>
</tr>
<tr>
<td>72 V d.c.</td>
<td>2A</td>
</tr>
<tr>
<td>85 V d.c.</td>
<td>2C</td>
</tr>
<tr>
<td>110 V d.c.</td>
<td>27</td>
</tr>
</tbody>
</table>

Manual override
Substitute
Without | 1
Push and turn | 2
Push only | 3

Actuation/return
Pilot
Supply
Substitute
Solenoid/Solenoid | Internal | 11
Solenoid/spring | Internal | 17

Selection of voltage codes

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Part number code</th>
<th>Power consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 V d.c.</td>
<td>22N</td>
<td>5.2 W</td>
</tr>
<tr>
<td>24 V d.c.</td>
<td>23N</td>
<td>4.5 W</td>
</tr>
<tr>
<td>36 V d.c.</td>
<td>24N</td>
<td>4.7 W</td>
</tr>
<tr>
<td>72 V d.c.</td>
<td>2AN</td>
<td>4.8 W</td>
</tr>
<tr>
<td>85 V d.c.</td>
<td>2CN</td>
<td>5.4 W</td>
</tr>
<tr>
<td>110 V d.c.</td>
<td>27N</td>
<td>5.3 W</td>
</tr>
</tbody>
</table>

Solenoids comply with ROHS directive 2011/165/EU
Coils are CE marked in accordance with low voltage directive 2007/96/EG

Accessories

Connector DIN EN 175301-803, form A (DIN 43650 A)

0570275
12 ... 250 V a.c./d.c.
VR61Z, 3/2, 5/2 or 5/3
Solenoid actuated spool valves

Dimensions

1

Dimensions in mm
Projection/First angle

2

Manual override
Sealing area
9 mm deep
VR61Z, 3/2, 5/2 or 5/3

Solenoid actuated spool valves

Dimensions in mm
Projection/First angle

Manual override
Sealing area
9 mm deep
VR61Z, 3/2, 5/2 or 5/3
Solenoid actuated spool valves

Dimensions in mm
Projection/First angle

Flange pattern

[Diagram]

Manual override
Sealing area
9 mm deep

Warning
These products are intended for use in industrial compressed air and rail transport systems only. Do not use these products where pressures and temperatures can exceed those listed under «Technical features/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 IMI 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.