



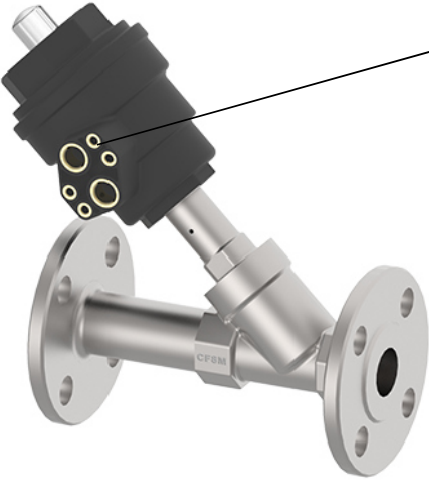
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|--|---|---|----------------------------|----------------------------------|-----------------|
| TD-106-1<br>Rev No. 5<br><br>Form No.  |  | <b>PRODUCT STANDARD</b><br><b>SWITCHGEAR</b><br><b>HYDERABAD</b>  |                            | <b>Product</b><br><b>STD NO.</b> | <b>SG 80003</b> |
|  |   |   |                            | Rev No 00                        |                 |
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| COPYRIGHT AND CONFIDENTIAL<br>The information on this document is the property of BHARAT HEAVY ELECTRICALS LIMITED,<br>It must not be used directly or indirectly in any way detrimental to the interest of the company. |   | <b><u>BIDIRECTIONAL CHANGE OVER VALVE WITH SOLENOID VALVE</u></b><br><b><u>Material code: SG9780003010</u></b>  |                            |                                  |                 |
|  |   | <p>1. <b>Description:</b> Bi-directional Change over valve with Solenoid Valve mounted for Oxygen generator.</p> <p>2. <b>Scope of supply:</b> 1No. of Bi-directional Change over valve mounted with solenoid valve and suitable brass silencers.</p> <p>3. <b>Technical details for Bidirectional Change Over Valve:</b></p> <ol style="list-style-type: none"> <li>1) Item – Bidirectional Changeover Valve 2” Flanged end (normally closed)</li> <li>2) Type - Angle seated (By Directional)</li> <li>3) Port Size – 2” or 50NB Flanged</li> <li>4) Body Material - CF8 (SS-304) or better</li> <li>5) Media Pressure Range - 0 Bar to 7 Bar</li> <li>6) Seal – PTFE</li> <li>7) Media Temperature - - 10 to 100 Degree C</li> <li>8) Pneumatic Pressure - 3.5 Bar to 7 Bar</li> <li>9) Media -Air, Gases etc.</li> <li>10) End connections – 50NB, class 150 SORF Flanged.</li> <li>11) Namur connection for compatible to Solenoid Valve.</li> <li>12) Orifice --- 2” Full bore</li> </ol> <p>4. <b>Technical details for Solenoid valve with spring return and brass silencers:</b></p> <ol style="list-style-type: none"> <li>1) Item - Solenoid Valve with Spring Return</li> <li>2) Type - 3/2 Convertible Namur</li> <li>3) Port Size In/Exhaust – In/ Exhaust 1/4" BSP</li> <li>4) Body Material - Aluminium</li> <li>5) Media Pressure Range - 2 - 10bar</li> <li>6) Seal - NBR (Nitrile)</li> <li>7) Media Temperature – 5 Deg C to 60 Deg C</li> <li>9) Operating voltage AC - (50HZ) -230V</li> <li>10) Power Consumption - AC-6W</li> <li>11) Features – spool with cartridge Type design for Long Life, compact Design, Manual Override</li> <li>12) Media - Compressed Air, Filtered &amp; Lubricated as required</li> <li>13) Silencer: Brass</li> <li>14) Mounting fasteners suitable to Namur connection shall be supplied along with material.</li> </ol> |                            |                                  |                 |
| <b>Revisions:</b><br><br><b>Refer to record of revisions:</b>  |   | <b>Prepared:</b><br>K. SANGEETHA  | <b>Approved:</b><br>RAVI J | <b>Date:</b><br>12.05.2021       |                 |

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**5. Detailed Diagram:**




**Bidirectional Change Over Valve  
silencer**



**Solenoid valve with spring return with  
silencer**

Vendor to ensure that solenoid valve gas ports and mounting dimensions should match with Bidirectional Change Over Valve.




**Silencer (Brass)**

Vendor to ensure that solenoid valve gas ports and mounting dimensions should match with Bidirectional Change Over Valve.

**6. Quality assurance Inspection and Testing Requirement:**

- i) QP to be furnished by manufacturer as per their standard practices
- ii) Test report / certificates to be furnished by the manufacturer.
- iii) COC to be furnished by the manufacturer (for catalogue items)

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|---|----------------------------------|----------------------------|----------------------------|
| <b>Revisions:</b><br><br><b>Refer to record of revisions:</b> | <b>Prepared:</b><br>K. SANGEETHA | <b>Approved:</b><br>RAVI J | <b>Date:</b><br>12.05.2021 |
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| TD-106-1<br>Rev No. 5  | Form No. |    | <h1 style="text-align: center;">PRODUCT STANDARD</h1> <h2 style="text-align: center;">SWITCHGEAR</h2> <h3 style="text-align: center;">HYDERABAD</h3> |  | <b>Product<br/>STD NO.</b> | <b>SG 80003</b>                          |
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| <p style="text-align: center;">COPYRIGHT AND CONFIDENTIAL</p> <p>The information on this document is the property of BHARAT HEAVY ELECTRICALS LIMITED,<br/>It must not be used directly or indirectly in any way detrimental to the interest of the company.</p> |          | <p><b>7. Conservation and Packing:</b></p> <p>Conservation and packing shall be as per manufacturer standard practices.</p> <p><b>8. Warranty:</b></p> <p>The equipment is provided with warranty against faulty / defective material / workmanship/ manufacturing defects for 18 months from the date of dispatch or 12 months from the date of commissioning whichever is earlier.</p> <p><b>9. Documents Required:</b></p> <p>Following documents and drawings shall be furnished by manufacturer:</p> <ol style="list-style-type: none"> <li>Make and Model and Schematic Arrangement drawing</li> <li>GA drawings including weight and dimensions.</li> <li>Technical Datasheet</li> <li>O&amp;M manual, test certificates, catalogue, List of spares,etc.</li> <li>COC to be furnished by the manufacturer (for catalogue items)</li> </ol> |  |  |                            |  |
|  |          |   |  | <p><b>Revisions:</b></p> <p><b>Refer to record of revisions:</b></p> |                            | <p><b>Prepared:</b><br/>K. SANGEETHA</p> |



| Product |
|---------|
| STD no. |

**SG 80003**

Rev No. 001

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## RECORD OF REVISIONS

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