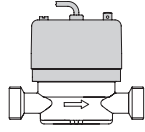




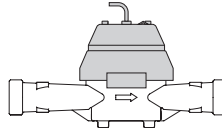
**FLOW SENSORS TYPES**

Single-jet vane-wheel heat meter flow transmitters  
**JS90-XX-NC**  
DN15-20



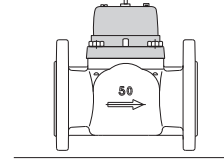
CE, MID, IP65

Single-jet vane-wheel heat meter flow transmitters  
**JS130-XX-NC**  
DN25-40



CE, MID, IP65

Propeller flow sensor with horizontal rotor axis  
**MWN130-XX-NC**  
DN40-300



CE, MID, IP65

**TRANSPORTATION AND STOCK CONDITIONS**

Protect from shock and vibration; transport by covered means of transport in factory or replacement packaging, fully protecting the product from damage.

Storage in an upward or sideways counter position in a closed room, at 5-50°C, with relative humidity up to 90%.

**SAFE OPERATING CONDITIONS**

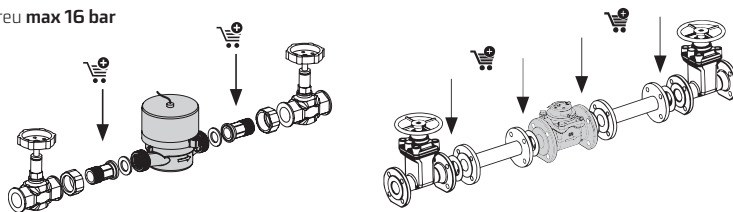
|   |   |   |  |   |
|---|---|---|--|---|
|   |   |   |  |   |
| Do Not Touch Hot Surface                                  | Do not touch damaged equipment  | Do not touch damaged equipment                            | Risk of crushing                                 | Do not apply extra load to equipment  |
|   |   |   |  |   |
| Install/remove equipment only with shut-off valves closed | Risk of injury during installation, removal, or handling of the equipment | Possible leakage of cold or hot water under high pressure | Do not dispose of equipment with household waste | Prevent access to the equipment by unauthorized persons (including unsupervised children), or persons with reduced mental or physical abilities |

**ESSENTIAL INFORMATION**

**max 90°C** for JS90-XX-NC transmitter  
**max 130°C** for JS130-XX-NC and MWN130-XX-NC transmitter

Temperature range **5-55°C**

Working pressure **max 16 bar**

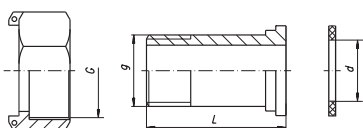


|           | *<br>[mm] |    | <br>[Nm] |
|-----------|-----------|----|----------|
| DN15      | 17        | 29 | 25       |
| DN20      | 20        | 36 | 30       |
| DN25      | 36        | 47 | 35       |
| DN32      | 44        | 54 | 40       |
| DN40      | 46        | 67 | 45       |
| DN40-125  | 24        | 24 |          |
| DN150-200 | 30        | 30 |          |
| DN250-300 | 36        | 36 |          |

\* Pipelines may feature other fastener sizes

**COMPONENTS REQUIRED TO INSTALL FLOW TRANSMITTERS**

Couplings available from Apator Powogaz



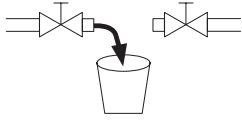
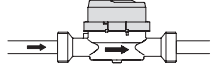
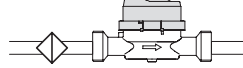
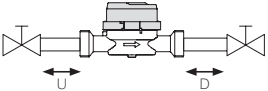

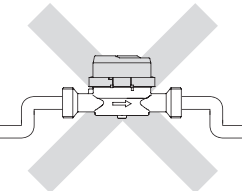
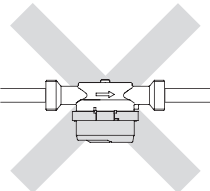
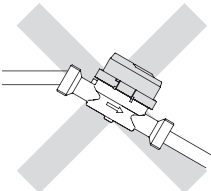
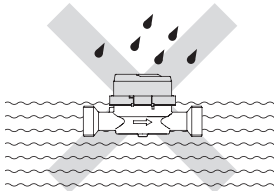
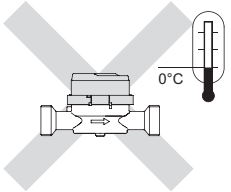
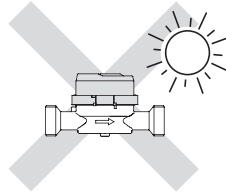
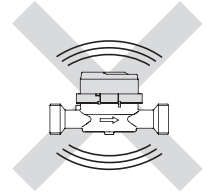
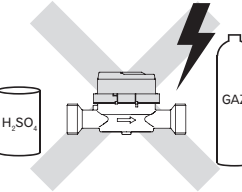
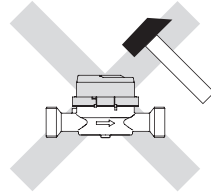
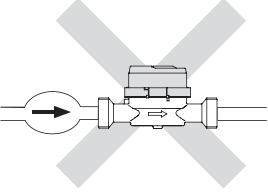
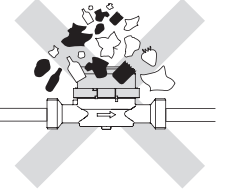
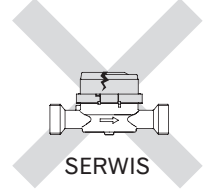



|  | G<br>[cal] | g<br>[cal] | d<br>[mm] | L<br>[mm] | Index        |
|--|------------|------------|-----------|-----------|--------------|
| Set of couplings with gaskets DN 15 mm | 3/4"       | 1/2"       | 17        | 37,5      | 0616-100-018 |
| Set of couplings with gaskets DN 20 mm | 1"         | 3/4"       | 23        | 45,5      | 0616-100-019 |
| Set of couplings with gaskets DN 25 mm | 1 1/4"     | 1"         | 29        | 46,5      | 0616-100-021 |
| Set of couplings with gaskets DN 32 mm | 1 1/2"     | 1 1/4"     | 36        | 56,0      | 0616-100-026 |
| Set of couplings with gaskets DN 40 mm | 2"         | 1 1/2"     | 43        | 66,0      | 0616-100-020 |
| Set of couplings with gaskets DN 50 mm | 2 1/2"     | 2"         | 54        | 76,0      | 0616-100-035 |

Gaskets for flange connections compliant with PN-EN 1514-1:2001

|       | d1<br>[mm] | d2<br>[mm] |
|-------|------------|------------|
| DN40  | 49         | 92         |
| DN50  | 61         | 107        |
| DN65  | 77         | 127        |
| DN80  | 89         | 142        |
| DN100 | 115        | 162        |
| DN125 | 141        | 192        |
| DN150 | 169        | 218        |
| DN200 | 220        | 273        |
| DN250 | 273        | 329        |
| DN300 | 324        | 384        |

## INSTALLATION AND OPERATION GUIDELINES

|   |  |   |  |   |
|---|--|---|--|---|
|  <p>Installation shall be performed by persons with authorisations related to the use of water supply and sewage networks</p>  |  <p>Close all valves prior to installation/dismantling</p>                              |  <p>When installing/dismantling the valves, place a vessel underneath the device</p> |  <p>Install the flow transmitter in line with the flow of water</p>  |  <p>It is recommended to install a sediment filter before the flow transmitter</p> |
|  <p>Straight sections before and after the flow transmitter should comply with the specifications listed in the table below </p> |  <p>Protect from air locks, do not install at the highest point of the installation</p> |  <p>Do not install the flow transmitter face down</p>                                |  <p>Protect from strain resulting from installing the water meter on non-coaxial installations</p>   |  <p>Protect from flooding</p>  |
|  <p>Protect from freezing</p>   |  <p>Protect from high temperatures and UV radiation</p>                                |  <p>Do not expose to vibrations</p>   |  <p>Do not use near acids, gas and electrical installations</p>   |  <p>Protect from impact</p>   |
|  <p>Protect from the hydrodynamic water hammer effect</p>   |  <p>Protect from contaminants at the installation site</p>                            |  <p>Send damaged flow transmitters to the service centre</p>                       |  <p>Do not place the used device together with municipal waste. Take it to a waste segregation point – comply with the rules of recycling.</p> <p><b>IMPORTANT:</b> Detailed information on the operation of the device can be found at <a href="http://www.apator.com">www.apator.com</a></p> |   |

## INSTALLATION POSSIBILITIES AND REQUIREMENTS

| Water meter/meter type | Transducer installation positions*            |                 | Sensitivity class on the flow profile |  |
|------------------------|---|-----------------|---------------------------------------|--|
|                        | Horizontal with the counter facing upwards H↑ | According to CE | According to the manufacturer         |  |
| JS90-XX-NC             | ✓   | U0 D0           | U5 D3                                 |  |
| JS130-XX-NC            | ✓   | U0 D0           | U5 D3                                 |  |
| MWN130-XX-NC           | ✓   | U0 D0           | U5 D3                                 |  |

\* The tolerance of the flow axis position for all flow transmitters, whether horizontal, vertical or at an intermediate angle, is 5° in accordance with PN-EN ISO 4064-2.

\*\* If there are fittings (disturbing the flow) in front of or behind the flow transmitter, it is recommended to extend the straight sections to the lengths specified in the table. In the case of fittings that strongly disturb the flow profile, the above values can be increased two or three times.



## CLASSIFICATION OF ENVIRONMENTAL CONDITIONS

| Type of flow transmitter                      | JS90-NC | JS130-NC | MWN130-NC |
|---|---------|----------|-----------|
| Climatic classification<br>(EN-1434-1:2015)   | A       | A        | C         |
| Mechanical classification<br>(EN-1434-1:2015) | M1      | M1       | M1        |

### WARNINGS:

This manual is the property of Apator Powogaz S.A., and all rights to this document are reserved. Any copying or distribution of this manual is strictly prohibited. As this manual is part of the device, it should be kept with the device to ensure access to information for both the user and qualified service personnel. It is recommended to read this manual before first using the device to ensure safe and proper operation.

Apator Powogaz S.A. shall not be held liable for any personal injuries, indirect damages, or material losses resulting from improper installation or incorrect use of the device, inconsistent with its intended purpose.

### PROHIBITED:

The device must be used in accordance with this manual, and any modifications, attempts at self-repair, or improper use of the device are prohibited. In case of malfunction or suspected issues with the device, contact qualified service personnel.

Apator Powogaz S.A. has the right to modify and improve the manufactured equipment without prior notice.



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