

Instruction manual

**LIQUI**  **VIEW Base**



**ATTENTION**

Please read this instruction manual carefully before installing and operating the instrument.  
Not following the guidelines could result in personal injury and/or damage to the equipment.

Even though care has been taken in the preparation and publication of the contents of this manual, we do not assume legal or other liability for any inaccuracy, mistake, misstatement or any other error of whatsoever nature contained herein. The material in this manual is for information purposes only, and is subject to change without notice.

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# 1 General Product Information

## 1.1 Introduction

The LIQUI-VIEW *Base* series operate on the vortex principle. The obstruction (bluff body) placed in the flow of the liquid sheds vortices downstream at a frequency proportional to the velocity of the liquid. This pattern of vortices is named the Von Kármán vortex street (fig 1.). A piezo-electric sensor detects the vortices and creates electrical pulses which are proportional to the liquid flow rate. The instruments may be mounted in any position. LIQUI-VIEW *Base* flow meters can be supplied in full scale ranges from 10 l/min up to 150 l/min at max. 12 bar pressure rating. Furthermore the instruments can be supplied with an analog output or a pulse output.

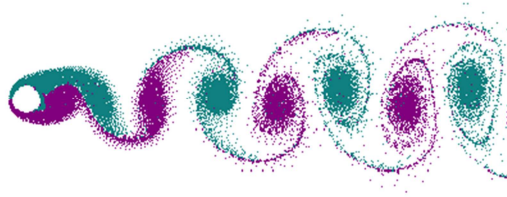


Fig. 1

## 1.2 Intended Use

The intended use of LIQUI-VIEW *Base* instruments is to measure water and water-like liquids which are compatible with the wetted parts of the instrument.

## 1.3 Warranty

Mass Flow ONLINE B.V. products are warranted against defects in material and workmanship for a period of one year from the date of shipment, provided they are used in accordance with the ordering specifications and the instructions in this manual and that they are not subjected to abuse, physical damage or contamination. Products that do not operate properly during this period may be repaired or replaced at no charge.

The warranty includes all initial and latent defects, random failures, and undeterminable internal causes. It excludes failures and damage caused by the customer, such as contamination, improper installation, physical shock etc.

Re-conditioning of products primarily returned for warranty service that is partly or wholly judged non-warranty may be charged for.

Mass Flow ONLINE B.V. prepays outgoing freight charges when any party of the service is performed under warranty, unless otherwise agreed upon beforehand, however, if the product has been returned to Mass Flow ONLINE B.V., these costs are added to the repair invoice. Import and/or export charges, foreign shipping methods/carriers are paid by the customer.

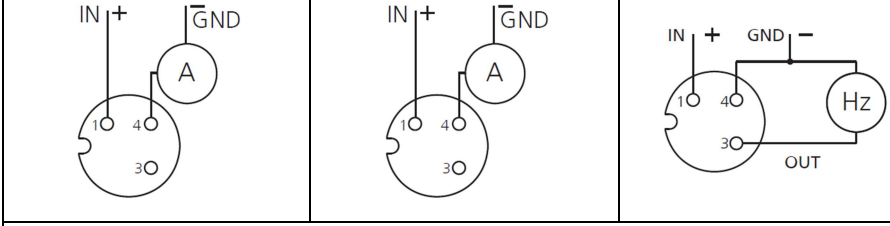
## 2 Installation and Operation

### 2.1 Unpacking and inspection

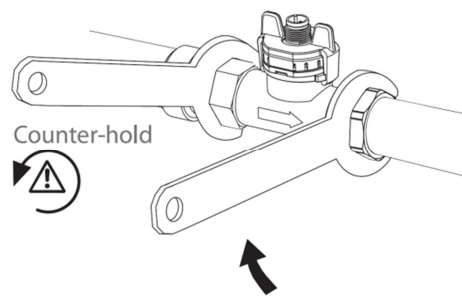
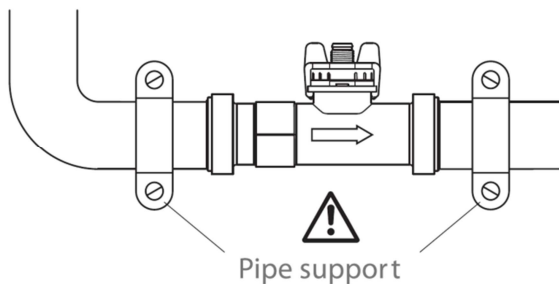
Check the outside packing box for damage incurred during shipment. Should the packing box be damaged, then the local carrier must be notified at once regarding his liability, if so required. At the same time a report should be submitted to your supplier.

Remove the envelope containing the packing list; carefully remove the equipment from the packing box. Inspect the contents for damaged or missing parts.

### 2.2 Electrical connection

	Analog		Pulse								
	AD-models	A-models	P-models								
Output	4..20mA	4..20mA	Square pulse signal								
Power supply	10 .. 30 vdc	8 .. 33 Vdc	4.75 .. 33 Vdc								
Load	$< (U_{in} - 10V) / 20 \text{ mA}$	$< (U_{in} - 8V) / 20 \text{ mA}$	$< 1 \text{ mA}$								
Current consumption			$< 2 \text{ mA}$								
Connection type	M12 x 1	M12 x 1	M12 x 1								
Hook up											
	<table border="0"> <tr> <td><u>Pin</u></td> <td><u>Colour</u></td> </tr> <tr> <td>1</td> <td>brown</td> </tr> <tr> <td>3</td> <td>blue</td> </tr> <tr> <td>4</td> <td>black</td> </tr> </table>			<u>Pin</u>	<u>Colour</u>	1	brown	3	blue	4	black
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### 2.3 Installation and setup

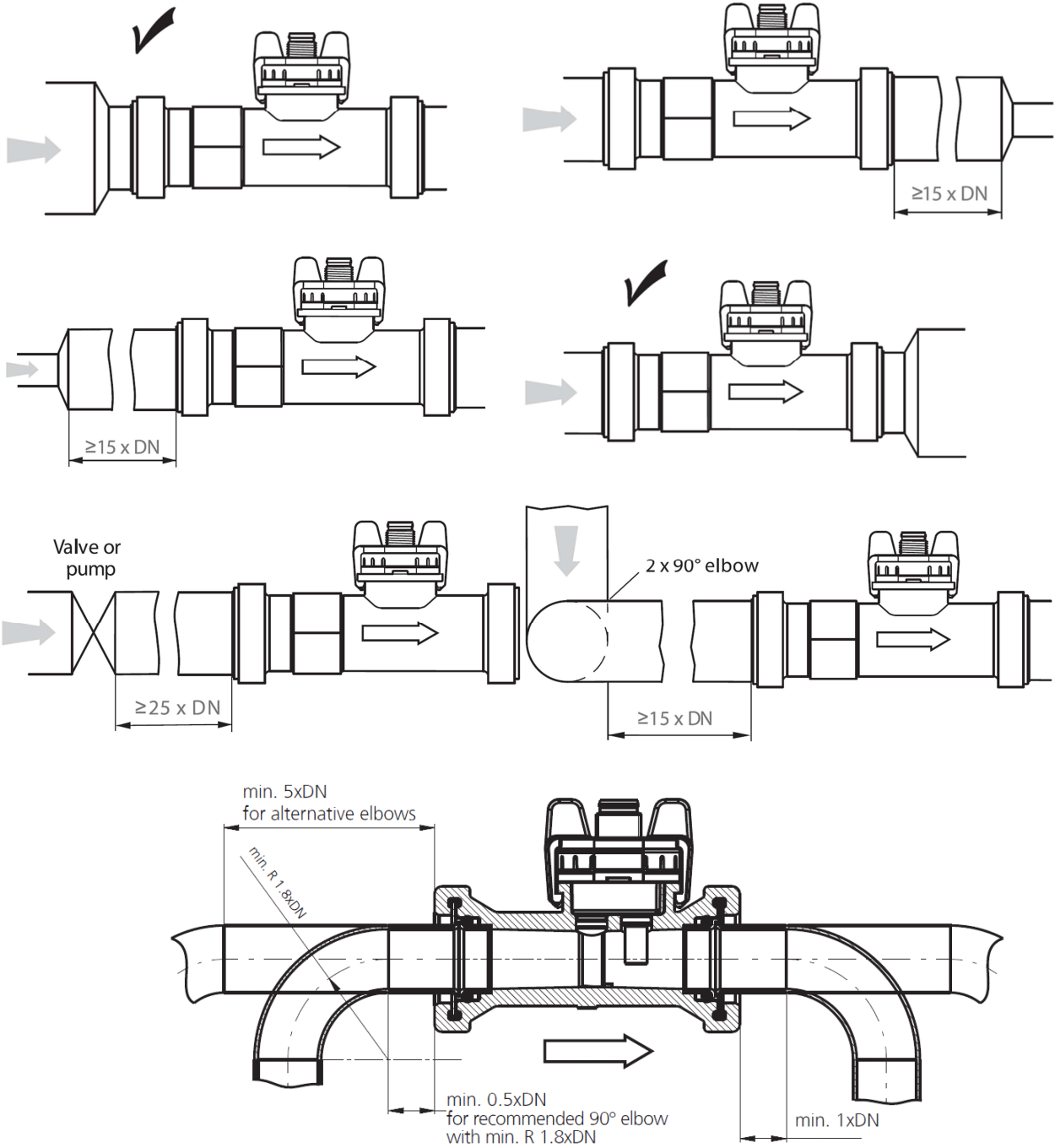


Make sure the LIQUI-VIEW Base is stressless mounted by using, for instance, external mounting brackets.

Model	Admissible Locking torque
LVB-06	min 1, max. 12 Nm
LVB-08	min 1, max. 12 Nm
LVB-10	min 1, max. 12 Nm
LVB-15	min 1, max. 12 Nm
LVB-20	min 2, max. 12 Nm
LVB-25	min 2.5, max. 15 Nm

Consider the following to ensure the correct function of the sensor.

- Only diameter changes from large to small are allowed.
- Avoid repeated elbows in the same level at entry side.



### 3 Contact information

Distribution and first line of support



[https://www.massflow-online.com/service\\_support/](https://www.massflow-online.com/service_support/)

[support@massflow-online.com](mailto:support@massflow-online.com)