

M3 series Eletta Flow Meter Quick Guide

Note!
This Quick Guide is an extract from the full Technical Manual for the M300-series Flow Meter. Please refer to the Eletta homepage for full manual at www.eletta.com

Safety	
	Do not install the M-series Flow Meter in an explosive environments.
	Before installation, make sure that the system is not pressurized.
	Never exceed the maximum static pressure, temperature and input voltage. See the type plate on the flow meter.
	Never open the instrument while it is pressurized.
	Electrical installation must only be made by authorized personnel.

Installation	
Position	<p>Mount the Flow Meter horizontally or vertically, but not upside down.</p> <p>Use the two threaded M6 on the side of the Pipe Section if you need to secure the Flow Meter to a wall or similar.</p> <p>To achieve stated accuracy, Eletta recommends that the upstream straight run is at least 15 times the pipe diameter, and the downstream run at least 5 times the pipe diameter. If this is not possible, the Flow Meter will still work but the accuracy can be lower.</p>

	<p>Make sure to mount the Flow Meter correctly. It is possible to turn the top 180 degrees after installation to suit the flow direction.</p>																												
Inside Diameter Pipe Section	<table border="1"> <thead> <tr> <th>Pipe dimension</th> <th>Inside diameter</th> </tr> </thead> <tbody> <tr> <td>DN 15</td> <td>16 mm</td> </tr> <tr> <td>DN 20</td> <td>21 mm</td> </tr> <tr> <td>DN 25</td> <td>26 mm</td> </tr> </tbody> </table> <p>If pipes and fittings with different inside diameter is connected to the Flow Meter, it will effect the accuracy.</p>	Pipe dimension	Inside diameter	DN 15	16 mm	DN 20	21 mm	DN 25	26 mm																				
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Function	The Flow Meter has a 2-wire loop, with 8-28 Vdc power supply and creates a current output of 4-20 mA within the flow ratio.																												
Electrical connection	Connect the cable to the Flow Meter. The connection cable (2.5 m) is found in the delivery box together with the Flow Meter.																												
M12 connector	<p>If you want to extend the cable, use a three lead cable, each lead having a conductive area of at least 0,25 mm² (0,00039 inch²).</p> <table border="1"> <thead> <tr> <th>Function</th> <th>Female connector</th> <th>Wire color</th> </tr> </thead> <tbody> <tr> <td rowspan="2">8-28 VDC</td> <td>+</td> <td>Pole 1</td> <td>WHITE</td> </tr> <tr> <td>-</td> <td>Pole 2</td> <td>BROWN</td> </tr> <tr> <td>RS485A</td> <td>Pole 3</td> <td>GREEN</td> </tr> <tr> <td>RS485B</td> <td>Pole 4</td> <td>YELLOW</td> </tr> <tr> <td>Not active</td> <td>Pole 5</td> <td>GREY</td> </tr> <tr> <td>Not active</td> <td>Pole 6</td> <td>PINK</td> </tr> <tr> <td>Not active</td> <td>Pole 7</td> <td>BLUE</td> </tr> <tr> <td>Not active</td> <td>Pole 8</td> <td>RED</td> </tr> </tbody> </table>	Function	Female connector	Wire color	8-28 VDC	+	Pole 1	WHITE	-	Pole 2	BROWN	RS485A	Pole 3	GREEN	RS485B	Pole 4	YELLOW	Not active	Pole 5	GREY	Not active	Pole 6	PINK	Not active	Pole 7	BLUE	Not active	Pole 8	RED
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Current output	<p>The maximum output load is calculated with the following formula:</p> $\text{Max } \Omega = \frac{\text{Supply Voltage} - 8V}{0.02 \text{ A}} \quad (\text{incl. cable})$																												
Separate Mounting	If your system contains hot media, suffers from extensive vibrations or lack of space, you may need to mount the Pipe Section and the Control Unit separately. See the Installation and Operation Manual, section 2.4 – Separate Mounting.																												

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