

# meimag

## 5100W

Electromagnetic Flowmeter  
DN 25 ... DN 1200  
for water up to 70 °C



## Main Features

### MAG 5100W

High measuring accuracy ( $\pm 0.25$  % of measured value; together with MAG 6000)

Earthing electrodes integrated in the measuring tube

Simple commissioning by SENSORPROM

DN 50...300 with coned measuring pipe by 1xDN

Liner with WRC Approval

Temperature resistant up to 70°C (short time 90°C)

### MAG 5000

High measuring accuracy ( $\pm 0.5$  % of measured value)

Wide measuring range

Simple commissioning by SENSORPROM

No calibration necessary

Self diagnosis

LCD-indicator, Current output, Pulse output

Empty pipe detection

Flow-direction signal

Converter for compact/remote mounting

Automatic zero point adjustment

MAG 5000 CT with pattern approval for cold water

### MAG 6000

High measuring accuracy ( $\pm 0.25$  % of measured value)

Batch function

Limit switch

MAG 6000 CT with pattern approval for cold water

Further features see MAG 5000

## Pattern Approval Sign

6.221

05.21

For MAG 5000 CT and MAG 6000 CT

30 °C

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 **SENSUS**  
METERING SYSTEMS



Converter  
MAG 5000 / MAG 6000

Sensor  
MAG 5100W

## Models available

### Sensor MAG 5100W

|            |         |                                |
|------------|---------|--------------------------------|
| DN 25 ...  | DN 1200 | 70 °C (short time 90°C )       |
| DN 25 ...  | DN 40   | PN 40                          |
| DN 50 ...  | DN 150  | PN 16                          |
| DN 200 ... | DN 1200 | Standard PN 10; optional PN 16 |

Liner material: Hard rubber (with WRC-approval)  
DN 50... 300 composite material (with WRC-approval)

Electrodes: Stainless steel  
Pipe connections: Flanges acc. to EN 1092

Earthing electrodes: Stainless steel

Converter MAG 5000 115/230 V AC

Converter MAG 5000 24 V AC/DC

Converter MAG 6000 115/230 V AC

Converter MAG 6000 24 V AC/DC

Converter MAG 5000 CT 115/230 V AC

Converter MAG 6000 CT 115/230 V AC

- Other models on request

## Applications

Measurement of water up to 70 °C

Measurement of waste water

Process control

District metering

Measurement of aggressive mediums and liquids with different viscosities

Batching of fluids (MAG 6000)

## Installation Requirements

Upstream unrestricted straight pipe min. 5 x DN

Downstream unrestricted straight pipe min. 2 x DN

May be installed at any angle

Pipe must always be filled with liquid.

## Measuring Range

The table (see right) shows the relationship between flow velocity  $V$ , flow quantity  $Q$  and sensor dimension DN.

### Selecting of sensor

Normally, the sensor is chosen so that at full scale velocity  $V$  in the meas. pipe is 2 ... 3 m/s or more.

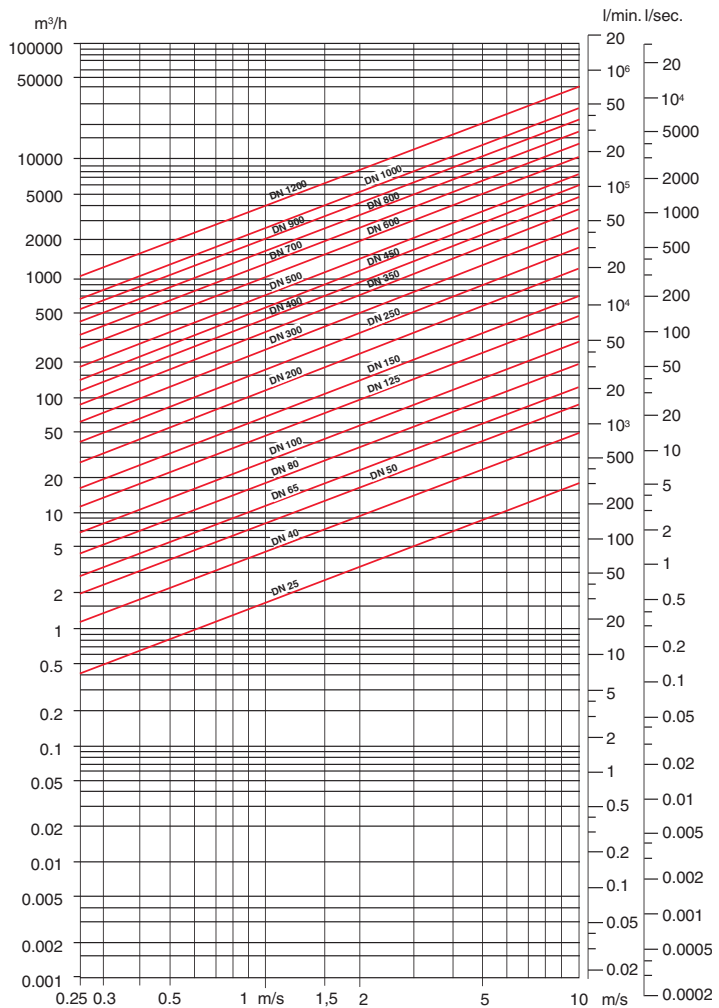
For measuring of mediums with high solids content  $V$  should be 3 ... 5 m/s to avoid deposition

### Prerequisites

Medium pumpable with a conductivity of min 5S/cm.

Power supply 115/230 V AC or 24 V AC/DC.

## Sizing Table (DN 25 ... DN 1200)



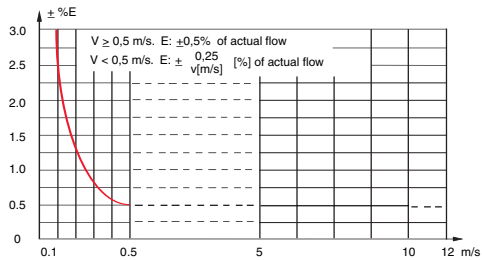
**meimag 5100W**

## Accuracy

under reference conditions

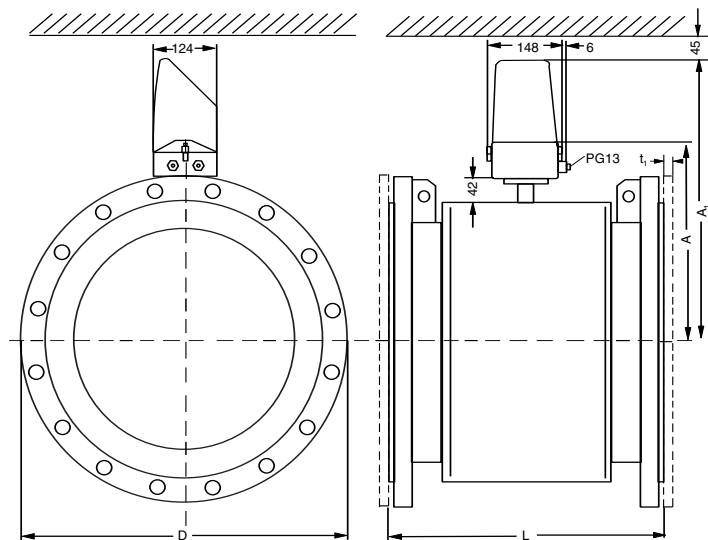
(Display, Frequency, Pulse output)

MAG 5100W/5000 · MAG 5100W/6000



V: actual flow velocity (m/s), E: Error in % of actual flow

## Dimension Pictures



## Dimensions and Weights

| DN<br>mm | EN 1092 |      | ANSI  |     | without<br>MAG 6000/5000 |     | with<br>MAG 6000/5000 |      | weight *)<br>(kg) |
|----------|---------|------|-------|-----|--------------------------|-----|-----------------------|------|-------------------|
|          | PN 16   |      | PN 40 |     | 150 lb                   |     | A                     | A1   |                   |
|          | L **)   | D    | L **) | D   | L **)                    | D   | (mm)                  | (mm) |                   |
| 25       |         |      | 200   | 115 | 200                      | 108 | 162                   | 319  | 4                 |
| 40       |         |      | 200   | 150 | 200                      | 127 | 172                   | 329  | 7                 |
| 50       | 200     | 165  |       |     | 200                      | 152 | 172                   | 329  | 9                 |
| 65       | 200     | 185  |       |     | 200                      | 178 | 180                   | 337  | 11                |
| 80       | 200     | 200  |       |     | 200                      | 191 | 185                   | 342  | 12                |
| 100      | 250     | 220  |       |     | 250                      | 229 | 203                   | 360  | 15                |
| 125      | 250     | 250  |       |     | 250                      | 254 | 223                   | 380  | 20                |
| 150      | 300     | 285  |       |     | 300                      | 279 | 238                   | 395  | 26                |
| 200      | 350     | 340  |       |     | 350                      | 343 | 263                   | 420  | 48                |
| 250      | 450     | 405  |       |     | 450                      | 406 | 297                   | 454  | 69                |
| 300      | 500     | 460  |       |     | 500                      | 483 | 314                   | 471  | 86                |
| 350      | 550     | 520  |       |     | 550                      | 533 | 334                   | 491  | 125               |
| 400      | 600     | 580  |       |     | 600                      | 597 | 358                   | 515  | 143               |
| 450      | 600     | 640  |       |     | 600                      | 635 | 389                   | 546  | 173               |
| 500      | 600     | 715  |       |     | 600                      | 699 | 414                   | 571  | 223               |
| 600      | 600     | 840  |       |     | 600                      | 813 | 464                   | 621  | 338               |
| 700      | 700     | 910  |       |     |                          |     | 561                   | 718  | 396               |
| 800      | 800     | 1025 |       |     |                          |     | 612                   | 769  | 474               |
| 900      | 900     | 1125 |       |     |                          |     | 662                   | 819  | 600               |
| 1000     | 1000    | 1255 |       |     |                          |     | 713                   | 870  | 885               |
| 1200     | 1200    | 1485 |       |     |                          |     | 814                   | 971  | 1106              |

All flange dimensions to EN 1092 or ANSI B 16.5

\*) With signal converter MAG 6000/5000 mounted: Weight increases by 2 kg.

\*\*) If earthing flanges are used additionally, the thickness of the earthing flange and gasket must be added to the length.

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## Available Design

|                         | Description  | DN  | PN     | Order-No.<br>PN 10 | Order-No.<br>PN 16 (40) |
|-------------------------|--|-----|--------|--------------------|-------------------------|
| <b>Sensor MAG 5100W</b> | <b>Sensor Meimag 5100W</b>   | 25  | 40     |                    | 829379 (40)             |
|                         |  | 40  | 40     |                    | 829380 (40)             |
|                         | - Liner: Hard rubber / Composite material (with WRC-approval)                  | 50  | 16     |                    | 829381                  |
|                         | - Electrodes: AISI 316 Ti (stainless steel)                                    | 65  | 16     |                    | 829382                  |
|                         | - Flanges: ST 35, EN 1092  | 80  | 16     |                    | 829383                  |
|                         | - Accuracy: ±0,5 %   | 100 | 16     |                    | 829384                  |
|                         | - Pressure rate: see table   | 125 | 16     |                    | 829385                  |
|                         | - Temperature: 0 ... 70 °C   | 150 | 16     |                    | 829386                  |
|                         | - Protection class: IP 67  | 200 | 10     | 829387             | 829388                  |
|                         |  | 250 | 10     | 829389             | 829390                  |
|                         |  | 300 | 10     | 829391             | 829392                  |
|                         | - Integrated earthing electrodes<br>(no additional earthing flanges necessary) | 350 | 10     | 829393             | 829394                  |
|                         |  | 400 | 10     | 829395             | 829396                  |
|                         |  | 500 | 10     | 829397             | 829398                  |
|                         | Other pressure rating, flanges and electrodes on request                       | 600 | 10     | 829399             | 829400                  |
|                         |  | 700 | 10     | 829401             | 829402                  |
|                         | 800  | 10  | 829404 | 829405             |                         |
|                         | 900  | 10  | 829407 | 829408             |                         |
|                         | 1000   | 10  | 829410 | 829411             |                         |
|                         | 1200   | 10  | 829414 | 829413             |                         |

|                                  | Description  | Code-No.                                 | Order-No. |
|----------------------------------|--|--|-----------|
| <b>Accessories<br/>MAG 5100W</b> | Submersible kit (IP 68 10 m WG)<br>For use with standard MAG 5100W, if the sensor is buried or permanently submerged | 085U0220                                 | 828478    |
|                                  | Earthing and protection flange<br>Type C<br>(additional inlet protection for abrasive media)                         | Please mention<br>size and pressure rate |           |

|                               | Description                                       | Application                             | Protection class                        | Code-No.   | Order-No.  |
|-------------------------------|---|---|---|------------|------------|
| <b>Converter<br/>MAG 5000</b> | Converter MAG 5000<br>compact mounted             | 115/230 V AC<br>50/60 Hz                | IP 67, glass fibre reinforced polyamide | 083F5018   | 828479     |
|                               |   |   | IP 00, 19"-Insert                       | 083F5020   | on request |
|                               | 24 V DC<br>(11 ... 30 V)                          | IP 67, glass fibre reinforced polyamide | 083F5017                                | 829260     |            |
|                               |   | IP 00, 19"-Insert                       | 083F5021                                | on request |            |
|                               | Converter MAG 5000 CT<br>pattern approved version | 115/230 V AC<br>50/60 Hz                | IP 67, glass fibre reinforced polyamide | 083F5050   | 829416     |
|                               |   |   | IP 67, glass fibre reinforced polyamide | 083F5046   | 829421     |
| <b>Converter<br/>MAG 6000</b> | Converter MAG 6000<br>compact mounted             | 115/230 V AC<br>50/60 Hz                | IP 67, glass fibre reinforced polyamide | 083F5014   | 828480     |
|                               |   |   | IP 00, 19"-Insert                       | 083F5023   | on request |
|                               | Converter MAG 6000 CT<br>pattern approved version | 115/230 V AC<br>50/60 Hz                | IP 67, glass fibre reinforced polyamide | 083F5015   | 829261     |
|                               |   |   | IP 67, glass fibre reinforced polyamide | 083F5010   | 829420     |

|  | Description   | Code-No. | Order-No. |        |
|--|---|----------|-----------|--------|
| <b>Accessories<br/>MAG 5000<br/>MAG 6000<br/>Further accessories on<br/>request.</b> | <b>Wall mounting kit for IP 67</b><br>Wall mounting enclosure, 5 pcs. M20 brackets, | 085U1001 | 828483    |        |
|  | <b>Standard electrode and coil cable</b> 3 x 1.5 mm <sup>2</sup> PVC Length:        | 10 m     | 083F0221  | 828892 |
|  |   | 20 m     | 083F0210  | 828485 |
|  |   | 40 m     | 083F0211  | 828486 |
|  |   | 60 m     | 083F0212  | 828487 |
|  |   | 100 m    | 083F0213  | 828488 |
|  | <b>Special electrode cable, double screened</b> PVC Length:                         | 10 m     | 083F0221  | 828892 |
| 40 m   |   | 083F3094 | 828490    |        |
| 60 m   |   | 083F3093 | 828491    |        |
| 100 m  |   | 083F3092 | 828492    |        |
| (recommended for long distances and if empty pipe detection is used)                 |   |          |           |        |

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