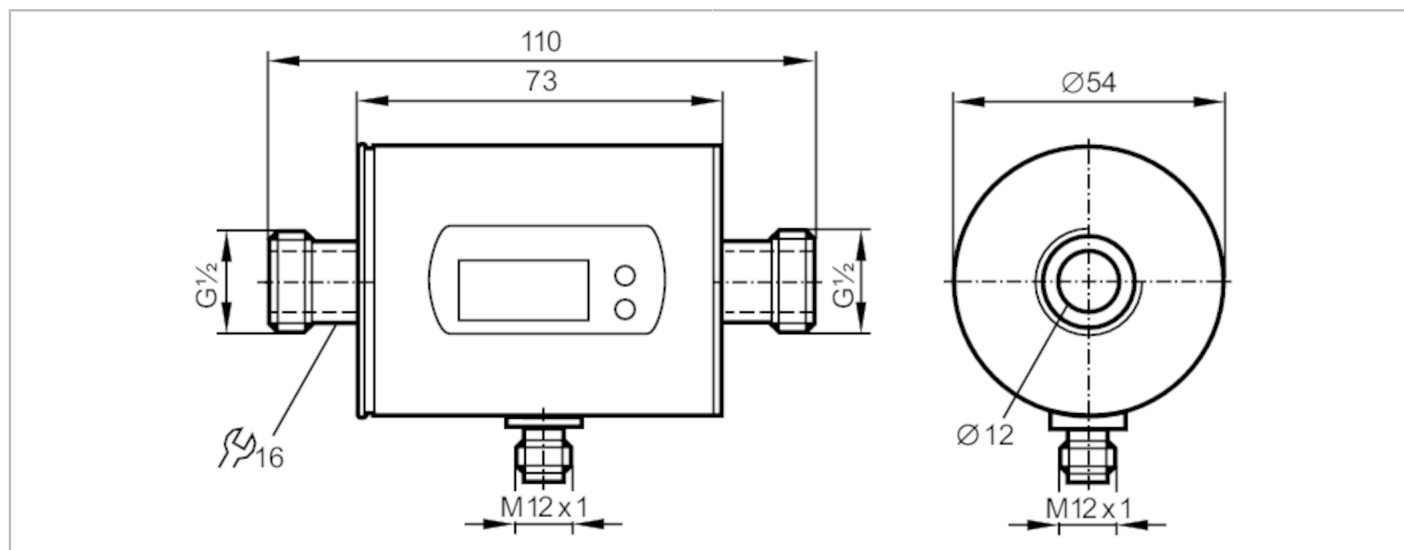


# SM6004



## Magnetic-inductive flow meter

SMR12GGX50KG/US-100



### Application

|                    |                                                                                           |
|--------------------|-------------------------------------------------------------------------------------------|
| Application        | for industrial applications                                                               |
| Installation       | connection to pipe by means of an adapter                                                 |
| Media              | conductive liquids; water; hydrous media                                                  |
| Medien             | conductivity: $\geq 20 \mu\text{S/cm}$<br>viscosity: $< 70 \text{ mm}^2/\text{s}$ (40 °C) |
| Medium temperature | [°C] -10...70                                                                             |
| Pressure rating    | [bar] 16                                                                                  |

### Electrical data

|                             |                                                   |
|-----------------------------|---------------------------------------------------|
| Operating voltage           | [V] 20...30 DC; (according to EN 50178 SELV/PELV) |
| Current consumption         | [mA] 120; (24 V)                                  |
| Protection class            | III                                               |
| Reverse polarity protection | yes                                               |
| Power-on delay time         | [s] 5                                             |

### Outputs

|                            |                         |
|----------------------------|-------------------------|
| Total number of outputs    | 2                       |
| Output signal              | analogue signal         |
| Number of analogue outputs | 2                       |
| Analogue current output    | [mA] 4...20; (scalable) |
| Max. load                  | [Ω] 500                 |
| Overload protection        | yes                     |

### Measuring/setting range

|                          |                  |                |
|--------------------------|------------------|----------------|
| Measuring range          | 0.03...6.6 gpm   | 0.1...25 l/min |
| Display range            | -7.92...7.92 gpm | -30...30 l/min |
| Resolution               | 0.01 gpm         | 0.05 l/min     |
| Analogue start point ASP | 0...5.28 gpm     | 0...20 l/min   |
| Analogue end point AEP   | 1.32...6.6 gpm   | 5...25 l/min   |
| In steps of              | 0.01 gpm         | 0.05 l/min     |

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|                                      |                                                                                       |                                                |
|--------------------------------------|---------------------------------------------------------------------------------------|------------------------------------------------|
| Temperature monitoring               |                                                                                       |                                                |
| Measuring range                      | [°C]                                                                                  | -20...80                                       |
| Resolution                           | [°C]                                                                                  | 0.2                                            |
| Analogue start point                 | [°C]                                                                                  | -20...60                                       |
| Analogue end point                   | [°C]                                                                                  | 0...80                                         |
| In steps of                          | [°C]                                                                                  | 0.2                                            |
| Accuracy / deviations                |                                                                                       |                                                |
| Flow monitoring                      |                                                                                       |                                                |
| Accuracy (in the measuring range)    |                                                                                       | ± (2 % MW + 0,5 % MEW)                         |
| Repeatability                        |                                                                                       | ± 0,2% MEW                                     |
| Temperature monitoring               |                                                                                       |                                                |
| Accuracy                             | [K]                                                                                   | ± 2,5 (Q > 1 l/min)                            |
| Response times                       |                                                                                       |                                                |
| Flow monitoring                      |                                                                                       |                                                |
| Response time                        | [s]                                                                                   | 0.15; (dAP = 0)                                |
| Damping for the switching output dAP | [s]                                                                                   | 0...3                                          |
| Temperature monitoring               |                                                                                       |                                                |
| Dynamic response T05 / T09           | [s]                                                                                   | T09 = 20 (Q > 1 l/min)                         |
| Operating conditions                 |                                                                                       |                                                |
| Ambient temperature                  | [°C]                                                                                  | -10...60                                       |
| Storage temperature                  | [°C]                                                                                  | -25...80                                       |
| Protection                           |                                                                                       | IP 67                                          |
| Tests / approvals                    |                                                                                       |                                                |
| EMC                                  | DIN EN 60947-5-9                                                                      | 500 V withstand voltage (V DC)                 |
| Shock resistance                     | DIN IEC 68-2-27                                                                       | 20 g (11 ms)                                   |
| Vibration resistance                 | DIN IEC 68-2-6                                                                        | 5 g (10...2000 Hz)                             |
| MTTF                                 | [years]                                                                               | 175                                            |
| Pressure Equipment Directive         | Sound Engineering Practice; can be used for group 2 fluids; group 1 fluids on request |                                                |
| Mechanical data                      |                                                                                       |                                                |
| Weight                               | [g]                                                                                   | 515.6                                          |
| Materials                            | stainless steel (1.4404 / 316L); PBT-GF20; PC; FKM; TPE                               |                                                |
| Materials (wetted parts)             | stainless steel (1.4404 / 316L); PEEK; FKM                                            |                                                |
| Process connection                   | threaded connection G 1/2 flat seal                                                   |                                                |
| Displays / operating elements        |                                                                                       |                                                |
| Display                              | Display unit                                                                          | 6 x LED, green (l/min, m³/h, gpm, gph, °C, °F) |
|                                      | measured values                                                                       | alphanumeric display, 4-digit                  |
|                                      | programming                                                                           | alphanumeric display, 4-digit                  |
| Display unit                         | l/min; m³/h; gpm; gph; °C; °F                                                         |                                                |
| Remarks                              |                                                                                       |                                                |
| Remarks                              | MW = measured value                                                                   |                                                |
|                                      | MEW = Final value of the measuring range                                              |                                                |
| Pack quantity                        | 1 pcs.                                                                                |                                                |

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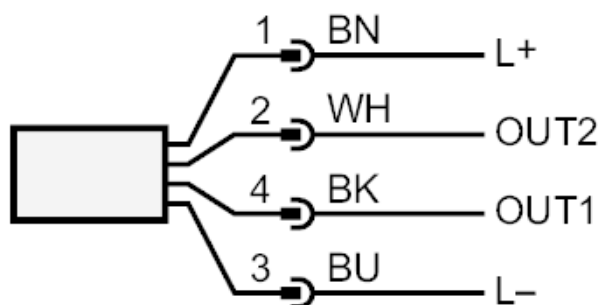
SMR12GGX50KG/US-100

### Electrical connection

Connector: 1 x M12; Contacts: gold-plated



### Connection



colours to DIN EN 60947-5-2

OUT1: analogue output Temperature monitoring

OUT2: analogue output volumetric flow quantity monitoring

Core colours :

BK = black

BN = brown

BU = blue

WH = white

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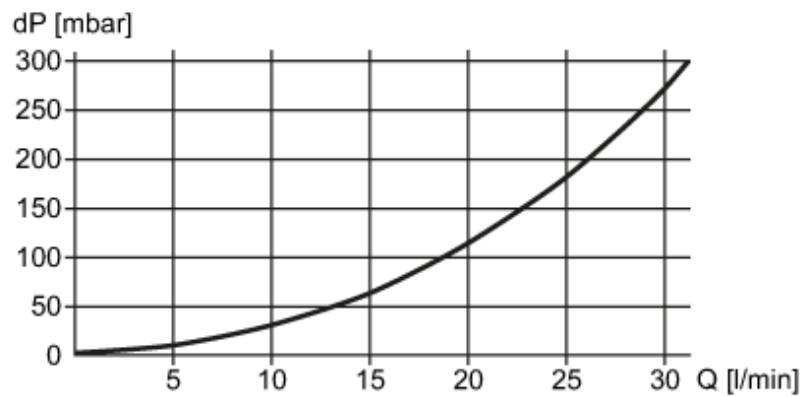


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### Diagrams and graphs

Pressure loss



dP Pressure loss

Q volumetric flow quantity