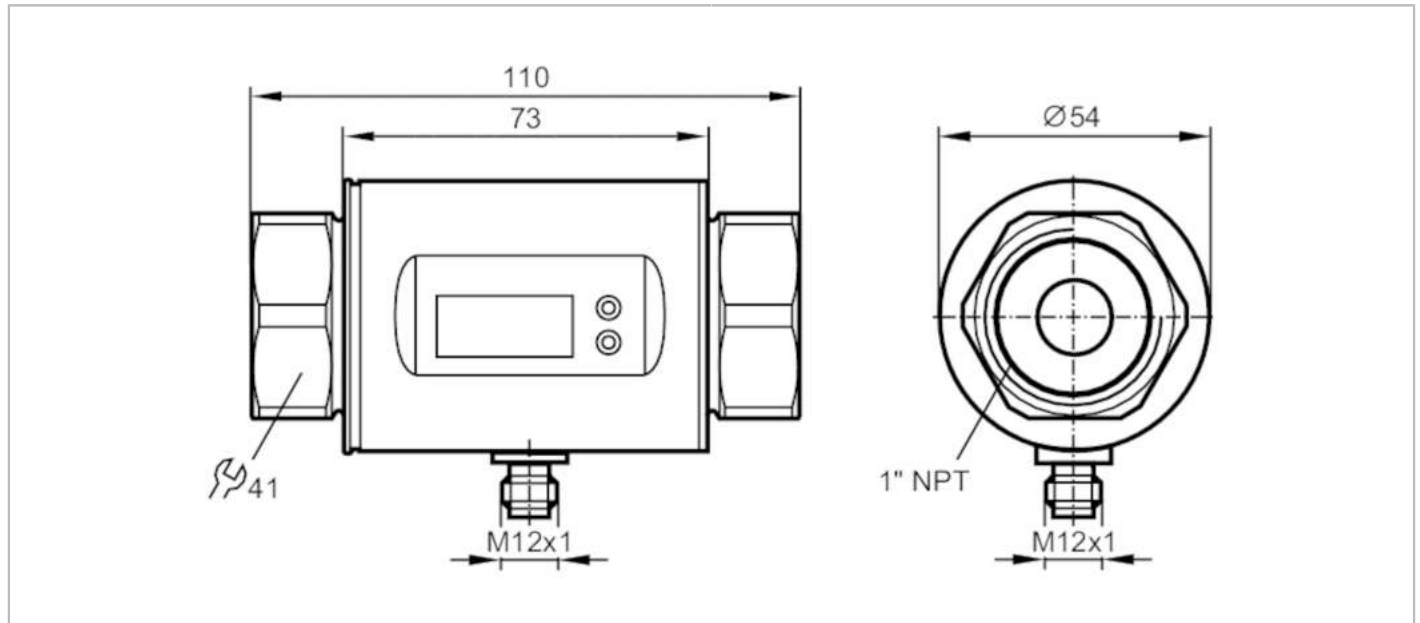


# SM8604



## Magnetic-inductive flow meter

SMN11GGX50KG/US-100



| Product characteristics                        |   |
|--|---|
| Number of inputs and outputs                   | Number of analogue outputs: 2   |
| Measuring range                                | 0.2...100 l/min      0.1...26.4 gpm   |
| Process connection                             | threaded connection 1" NPT DN25   |
| Application                                    |   |
| Special feature                                | Gold-plated contacts  |
| Application                                    | for industrial applications   |
| Media  | conductive liquids; water; hydrous media  |
| Note on media                                  | 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  |
| Pressure rating [Mpa]                          | 1.6   |
| MAWP (for applications according to CRN) [bar] | 11.2  |
| Electrical data                                |   |
| Operating voltage [V]                          | 20...30 DC; (to SELV/PELV)  |
| Current consumption [mA]                       | 120; (24 V)   |
| Protection class                               | III   |
| Reverse polarity protection                    | yes   |
| Power-on delay time [s]                        | 5   |
| Inputs / outputs                               |   |
| Number of inputs and outputs                   | Number of analogue outputs: 2   |
| Outputs  |   |
| Total number of outputs                        | 2   |
| Output signal                                  | analogue signal   |

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

### Measuring/setting range

|                          |                  |                  |
|--------------------------|------------------|------------------|
| Measuring range          | 0.2...100 l/min  | 0.1...26.4 gpm   |
| Display range            | -120...120 l/min | -31.7...31.7 gpm |
| Resolution               | 0.1 l/min        | 0.05 gpm         |
| Analogue start point ASP | 0...80 l/min     | 0...21.1 gpm     |
| Analogue end point AEP   | 20...100 l/min   | 5.3...26.4 gpm   |
| In steps of              | 0.1 l/min        | 0.05 gpm         |

### 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, T19) |
| Damping process value 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 withstand voltage (V DC) |
| CPA approval         | model number            | 009MI                        |
|                      | accuracy class          | -                            |
|                      | maximum allowable error | ± 2,5 % FS                   |
|                      | Q (min)                 | 0,01 m³/h                    |
|                      | Q (t)                   | -                            |
|                      | Q (max)                 | 6 m³/h                       |
| Shock resistance     | DIN EN 60068-2-27       | 20 g (11 ms)                 |
| Vibration resistance | DIN EN 60068-2-6        | 5 g (10...2000 Hz)           |
| MTTF                 | [years]                 | 175                          |

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## Magnetic-inductive flow meter

SMN11GGX50KG/US-100

Pressure Equipment Directive      Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request

| Mechanical data          |   |
|--------------------------|---|
| Weight [g]               | 636.2   |
| 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 1" NPT DN25                         |

| Displays / operating elements |  |   |
|-------------------------------|--|---|
| Display                       | Display unit                               | 6 x LED, green (l/min, m <sup>3</sup> /h, gpm, gph, °C, °F) |
|                               | measured values                            | alphanumeric display, 4-digit                               |
|                               | programming                                | alphanumeric display, 4-digit                               |
| Display unit                  | l/min; m <sup>3</sup> /h; gpm; gph; °C; °F |   |

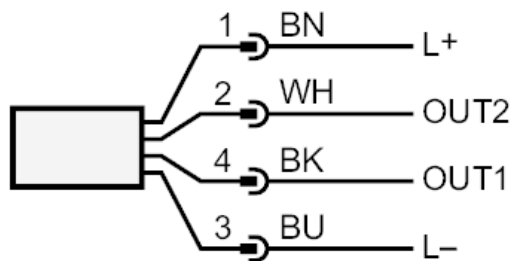
| Remarks       |   |
|---------------|---|
| Remarks       | MW = measured value<br>MEW = Final value of the measuring range |
| Pack quantity | 1 pcs.  |

### Electrical connection

Connector: 1 x M12; coding: A; Contacts: gold-plated



### Connection



OUT1:      colours to DIN EN 60947-5-2  
 analogue output Temperature monitoring  
 OUT2:      analogue output volumetric flow quantity monitoring  
 Core colours :  
 BK =      black  
 BN =      brown  
 BU =      blue  
 WH =      white

# SM8604

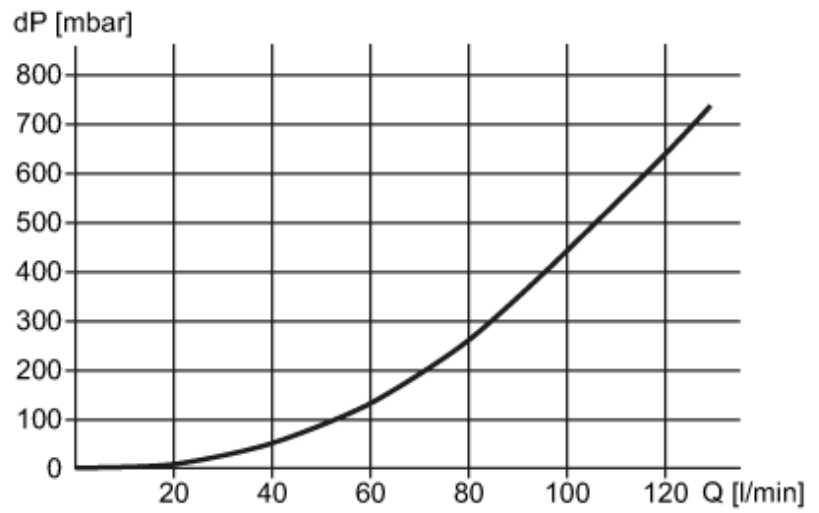


## Magnetic-inductive flow meter

SMN11GGX50KG/US-100

### Diagrams and graphs

Pressure loss



dP Pressure loss

Q volumetric flow quantity