



## Variable Area Flowmeter/monitor

Glass cone with fixed or loose flange



measuring  
•  
monitoring  
•  
analysing

URK



- Measuring range:  
water: 1...10 – 15 000 ... 50 000 l/h  
air: 0.02 ... 0.2 – 50 ... 500 Nm<sup>3</sup>/h
- Accuracy class: 4 according to VDI
- $p_{\max}$ : 16 bar;  $t_{\max}$ : 100 °C (65 °C for PVC)
- Connection: flange DIN 2526,  
Form C, ANSI, DN 15 – DN 80
- Material: cast iron,  
stainless steel 1.4301, 1.4404

S2



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**Applications**

- Domestic engineering
- Cooling circuits
- Plant engineering
- Water treatment
- Heating
- Machine tools
- Solar systems
- Welding machines
- Paper machines
- Glass melting pots
- Extrusion machines
- Induction furnaces

**Technical Data**

Installation position: vertical  
 Accuracy class: 4 according to VDI  
 Max. temperature: 100 °C (65 °C for PVC)  
 Max. pressure: 03H... 23H 16 bar (with PN 16 flange)  
 25H... 33H 12 bar (with PN 16 flange)  
 35H... 41H 8 bar (with PN 16 flange)  
 01L... 23L 16 bar (with PN 16 flange)  
 25L... 33L 10 bar (with PN 16 flange)  
 in all other cases 6 bar  
 Calibration conditions: water: 20 °C, air: 20 °C, air pressure: 1.013 bar abs.

**Contact (optional)**

Proximity switch: PNP open collector, n. o. contact (monostable)  
 Ambient temperature: -25 ... +70 °C  
 Supply voltage: 12 ... 24 V<sub>DC</sub>  
 Current consumption: max. 10 mA  
 Cable: 2 m, PVC  
 Protective category: IP67

**Description**

The Kobold URK model flowmeter/monitor works on the basis of the suspended float principle. It is used for measuring the flow rates in closed pipe line systems.

The media flows from below through a glass measuring cone that gets wider on top. Thus, the float is raised and indicates the respective flow rate on the scale provided on the measuring cone. To monitor flow rate limits, the URK meters can be optionally furnished with "open collector" proximity switches.

By its special design, this model is particularly suitable for applications where only very small operating pressures are available. Another advantage is offered by the very large sight glass which optically allows direct flow observation.

**Materials**

**Material combination URK**

| Ordering code | Connection                    | Float   | Seal                       | Centering ring        | Flange (fixed or loose)* | Cover plate*              | Sight glass* | Measuring tube     |
|---------------|-------------------------------|---|----------------------------|-----------------------|--------------------------|---------------------------|--------------|--------------------|
| 73            | cast iron                     | 1.4301  | NBR                        | PVC                   | cast iron                | stainless steel<br>1.4301 | plexiglass   | borosilicate glass |
| 33            | 1.4301                        | 1.4301  | FKM                        | PTFE                  | 1.4301                   |                           |              |                    |
| 55            | 1.4404                        | 1.4404  | FKM                        | PTFE                  |                          |                           |              |                    |
| 99**          | cast iron<br>1.4301<br>1.4404 | 1.4301<br>1.4404<br>aluminum<br>PTFE<br>PVC<br>PP | NBR<br>EPDM<br>FKM<br>PTFE | PVC<br>PTFE<br>1.4301 |                          |                           |              |                    |

\* Not wetted part  
 \*\* Customer specification on request



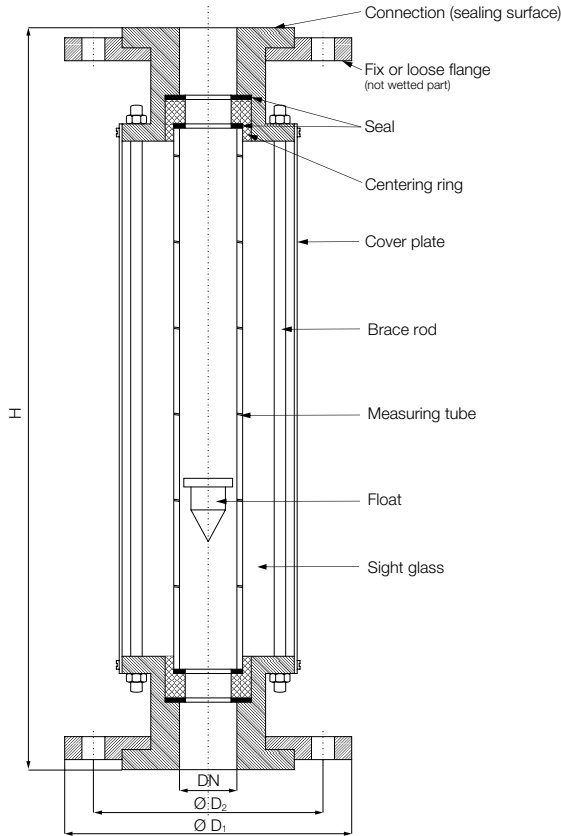
**Order Details** (Example: **URK-73 03H F F4 0**)

| Model               | Material combination   | Measuring range     |                          | Pressure loss [mbar] | Flange                           |                          |                         | Contacts               |  |
|---------------------|------------------------|---------------------|--------------------------|----------------------|----------------------------------|--------------------------|-------------------------|------------------------|--|
|                     |                        | water [l/h]         | air [Nm <sup>3</sup> /h] |                      | type                             | DIN 2526, Form C, PN 6   | DIN 2526, Form C, PN 16 |                        | ANSI 150 lbs   |
| URK-                | 73<br>33<br>55<br>99** |                     | 01L = 0.02...0.2         | 10                   | F=fixed flange<br>L=loose flange | F4 = DN 15<br>F5 = DN 20 | B4 = DN 15              | A4 = 1/2"<br>A5 = 3/4" | 0 = no contact<br>P* = 1 PNP normally open<br>R* = 2 PNP normally open |
|                     |                        | 03H = 1...10        | 03L = 0.032...0.32       | 10                   |                                  |                          |                         |                        |  |
|                     |                        | 05H = 1.6...16      | 05L = 0.05...0.5         | 10                   |                                  |                          |                         |                        |  |
|                     |                        | 07H = 2.5...25      | 07L = 0.08...0.8         | 12                   |                                  |                          |                         |                        |  |
|                     |                        | 09H = 4.0...40      | 09L = 0.13...1.3         | 9                    |                                  |                          |                         |                        |  |
|                     |                        | 11H = 6.3...63      | 11L = 0.2...2.0          | 17                   |                                  |                          |                         |                        |  |
|                     |                        | 13H = 10...100      | 13L = 0.32...3.2         | 24                   |                                  |                          |                         |                        |  |
|                     |                        | 15H = 16...160      | 15L = 0.5...5            | 28                   |                                  |                          |                         |                        |  |
|                     |                        | 17H = 25...250      | 17L = 0.8...8            | 28                   |                                  |                          |                         |                        |  |
|                     |                        | 19H = 40...400      | 19L = 1.3...13           | 36                   |                                  |                          |                         |                        |  |
|                     |                        | 21H = 63...630      | 21L = 2.0...20           | 34                   |                                  |                          |                         |                        |  |
|                     |                        | 23H = 100...1000    | 23L = 3.2...32           | 43                   |                                  |                          |                         |                        |  |
|                     |                        | 25H = 160...1600    | 25L = 5...50             | 48                   |                                  |                          |                         |                        |  |
|                     |                        | 27H = 250...2500    | 27L = 8...80             | 48                   |                                  |                          |                         |                        |  |
|                     |                        | 29H = 400...4000    | 29L = 13...130           | 51                   |                                  |                          |                         |                        |  |
|                     |                        | 31H = 630...6300    | 31L = 20...200           | 57                   |                                  |                          |                         |                        |  |
|                     |                        | 33H = 1000...10000  | 33L = 25...250           | 70                   |                                  |                          |                         |                        |  |
|                     |                        | 35H = 1600...16000  | 35L = 32...320           | 93                   |                                  |                          |                         |                        |  |
|                     |                        | 37H = 2500...25000  | 37L = 40...400           | 102                  |                                  | F7 = DN 32               | B7 = DN 32              | A8 = 1 1/2"            |  |
|                     |                        | 39H = 10000...40000 | 39L = 50...500           | 95                   |                                  |                          |                         |                        |  |
| 41H = 15000...50000 |                        | 102                 |                          |                      |                                  |                          |                         |                        |  |
| YYY = others        |                        |                     | on request               |                      |                                  |                          |                         |                        |  |

\* Monostable switch. Other switching functions on request

\*\* Customer specification on request

**Dimensions**



| DN | DIN      |                        |                        |           |          |                        |                        |           | ANSI |              |                        |                        |           |
|----|----------|------------------------|------------------------|-----------|----------|------------------------|------------------------|-----------|------|--------------|------------------------|------------------------|-----------|
|    | Model    | PN6                    |                        |           | PN16     |                        |                        |           | Size | Class 150 RF |                        |                        |           |
|    |          | D <sub>1</sub><br>[mm] | D <sub>2</sub><br>[mm] | H<br>[mm] | Model    | D <sub>1</sub><br>[mm] | D <sub>2</sub><br>[mm] | H<br>[mm] |      | Model        | D <sub>1</sub><br>[mm] | D <sub>2</sub><br>[mm] | H<br>[mm] |
| 15 | URK-..F4 | 80                     | 55                     | 380       | URK-..B4 | 95                     | 65                     | 380       | ½"   | URK-..A4     | 88,9                   | 60,5                   | 380       |
| 20 | URK-..F5 | 90                     | 65                     |           | URK-..B5 | 105                    | 75                     | 390       | ¾"   | URK-..A5     | 98,6                   | 69,9                   |           |
| 25 | URK-..F6 | 100                    | 75                     | 390       | URK-..B6 | 115                    | 85                     |           | 400  | 1"           | URK-..A6               | 108,0                  | 79,2      |
| 32 | URK-..F7 | 120                    | 90                     | 400       | URK-..B7 | 140                    | 100                    | 400       |      | 1¼"          | URK-..A7               | 117,3                  | 88,9      |
| 40 | URK-..F8 | 130                    | 100                    | 410       | URK-..B8 | 150                    | 110                    | 410       | 1½"  | URK-..A8     | 127,0                  | 98,6                   | 400       |
| 50 | URK-..F9 | 140                    | 110                    |           | URK-..B9 | 165                    | 125                    |           | 410  | 2"           | URK-..A9               | 152,0                  | 120,7     |
| 65 | URK-..FA | 160                    | 130                    | 550       | URK-..BA | 185                    | 145                    | 550       | 2½"  | URK-..AA     | 177,8                  | 139,7                  | 550       |
| 80 | URK-..FB | 190                    | 150                    | 560       | URK-..BB | 200                    | 160                    | 560       | 3"   | URK-..AB     | 190,5                  | 152,4                  |           |