itmo® 05



Elegant and easy metering with positively controlled valves, variable pressure stroke and in all PTFE design for fluids and gases.

Metering pumps – exactly matching your needs

Ritmo 05 Metering Pumps are specialized, high precision Metering Pumps for laboratories, process optimization, research and development and also for the industrial application for micro quantity metering.

They are characterized by their full-PTFE-design with highest chemical resistance, material purity and FDA-/BGVO- conformity.

Available in 6 installation sizes with a metering range from 3µl/min to 480 ml/min, outlet pressure up to 4 bar and configured for an extreme wide selection range from 1:1000

Applicable for nearly all aggressive fluids and gases, for acids, hydroxides and solvents, for high purity processes and metalfree applications and also for metering process in food and pharma sector.

With positively controlled valves for absolutely tightness between pressure side and suction side, for absolutely vacuum suitability and for robust suction performance

With force fit membran drive and delayed output velocity for constant and low pulsation precision metering

With easy operation with direct adjustment of delivery rate in µl/min or ml/min and clearly arranged keys for a sensational functionality and flexibility

The return function enables aggressive fluids or product melt to be returned from the pump head or the whole metering system to the storage vessel.

The clean function allows opening of both valves in the same time for rinsing or inerting (CIP / SIP) without removing the metering pump from the system.

Process capability and automatisation via analogue interface (4-20 mA), serial interface (RS 232) and master-slave interface.

Pump case with stainless steel, with PFA coating, ilumination or with synthetic-IP65-design

- Metering pumps in full-PTFE-design
- Diaphragm metering pumps with positively controlled valves
- Pulsfree diaphragm pumps
- Heated and cooled metering pumps
- Vacuum metering pumps
- Filling pumps
- Multi channel pumps
- Sampling pumps
- Mixing pumps
- Metering pumps in master-/ slave configuration
- Reflow splitter
- Pulse generator
- Gasmetering-/ gasmixing pumps
- Special acid pumps
- pH-controlled pumps

itmo® 05

Metering pumps with capacities ranging from 3 μl/min - 480 ml/min





Ritmo[®] 05



Specifications

| Pump type | R 05/3 | 05/30 | 05/60 | 05/120 | 05/250 | 05/480 |
|--|---------------------------|--------|--------|--------|--------|--------|
| max. metering capacity (ml/min) | 3 | 30 | 60 | 120 | 250 | 480 |
| min. metering capacity (µl/min) | 3 | 30 | 60 | 120 | 250 | 480 |
| max. stroke frequency (strokes/min) ca. 32 | | ca. 50 | ca. 48 | ca. 46 | ca. 53 | ca. 51 |
| max. pressure inlet (bar) | 4 | 4 | 3 | 2 | 1,5 | 1,5 |
| max. pressure outlet (bar) | 4 | 4 | 3 | 2 | 1,5 | 1,5 |
| Stroke volume (µI) | 95 | 600 | 1250 | 2600 | 4700 | 9400 |
| min. stroke duration (sec.) | 1,8 | 1,2 | 1,2 | 1,2 | 1,2 | 1,1 |
| max. stroke duration (sec.) | 1910 | 1190 | 1260 | 1300 | 1080 | 1190 |
| Repeat accuracy (%) | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| Vacuum at inlet (mbar) | 20 | 20 | 20 | 20 | 20 | 20 |
| Vacuum at outlet (mbar) | 0 | 0 | 0 | 2 | 0 | 0 |
| Max. viscosity (mPas) | 100 | 200 | 300 | 500 | 500 | 500 |
| Max. viscosity (mPas) ** | 200 | 400 | 600 | 800 | 800 | 800 |
| Max. medium temperature (°C) | 120°C | | | | | |
| Material, pump head | PTFE | | | | | |
| Material, diaphragm | PTFE | | | | | |
| Material, valves | PTFE | | | | | |
| Input voltage | 100-240 V | | | | | |
| Power input | 25 W (125 – 800 W heated) | | | | | |

The above rated values have been carefully determined with reference fluid. If other fluids are metered, the above values may differ minimal.

** max. viscosity with using software module R05-AK

Ambient temperature

max. dimensions LxBxT LxBxH

Schutzart



IP 30

50 °C (122 °F)

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270x130x205 (340x130x205 heated)



Fluid connecting options:

- (1) REA-Z-connection with PEEK-screwing and PTFE-/Silicon insert
- 2 REA-P-connection with PEEK-screwing and PTFE-sealing ring and cone
- 3 RGLF-connection with PTFE-adapter and PTFE-/Silicon insert
- 4 RGLK-connection with PTFE-adapter and PTFE-sealing ring and cone
- ⑤ RSVA-stainless steel screwing with PTFE-adaptation





