LIQUID PUMPS AND METERING PUMPS

for neutral and aggressive liquids

KNF LAB

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First class pumps for first class science

STEPDOS®

Chemically-resistant Diaphragm Metering Pumps

processor controlled

Technical features:

- Precise dosing, even for extremely small amounts
- Low maintenance
- Self-priming and dry run-proof
- Low-pulsation metering stroke motion

Flow rate (ml/min)[1]	Pressure head (mWg)	Suction head (mWg)	Motor 100-230V/50-60Hz operating current (A)/ power P_1 (W)	Protection class	Connections	Weight (kg)	Pump type (see techn. variants) Order No.
0.03-30	60	4	0.23-0.11 / 25	IP 65	UNF 1/4"-28	1.5	FEM 03 KT.18 S
0.03-30	60	4	0.23-0.11 / 25	IP 65	UNF 1/4"-28	1.5	FEM 03 TT.18 S
0.03-30	60	4	0.23-0.11 / 25	IP 65	UNF 1/4"-28	1.5	FEM 03 FT.18 S
0.03-30	60	4	0.23-0.11 / 25	IP 65	UNF 1/4"-28	1.5	FEM 03 ST.18 S
0.03-30	60	4	0.23-0.11 / 25	IP 65	UNF 1/4"-28	1.5	FEM 03 KT.18 RC
0.03-30	60	4	0.23-0.11 / 25	IP 65	UNF 1/4"-28	1.5	FEM 03 TT.18 RC
0.03-30	60	4	0.23-0.11 / 25	IP 65	UNF 1/4"-28	1.5	FEM 03 FT.18 RC
0.03-30	60	4	0.23-0.11 / 25	IP 65	UNF 1/4"-28	1.5	FEM 03 ST.18 RC
0.08-80	20	3	0.30-0.13 / 30	IP 65	DN 4/6 mm	1.5	FEM 08 KT.18 S
0.08-80	20	3	0.30-0.13 / 30	IP 65	DN 4/6 mm	1.5	FEM 08 TT.18 S
0.08-80	20	3	0.30-0.13 / 30	IP 65	NPT 1/8"	1.5	FEM 08 FT.18 S
0.08-80	20	3	0.30-0.13 / 30	IP 65	NPT 1/8"	1.5	FEM 08 ST.18 S
0.08-80	20	3	0.30-0.13 / 30	IP 65	DN 4/6 mm	1.5	FEM 08 KT.18 RC
0.08-80	20	3	0.30-0.13 / 30	IP 65	DN 4/6 mm	1.5	FEM 08 TT.18 RC
0.08-80	20	3	0.30-0.13 / 30	IP 65	NPT 1/8"	1.5	FEM 08 FT.18 RC
0.08-80	20	3	0.30-0.13 / 30	IP 65	NPT 1/8"	1.5	FEM 08 ST.18 RC

[1] Water at 20°C and zero pressure head

Technical variants:

Code	Comment
S	Manual operation via key pad: **Run mode:** continuous metering **Dispense mode:** metering according to volume and time
RC	The RC version features all functions of the S version. In addition, it can be controlled externally, via analog or digital signals. (The software and a control cable are included.)

Material in contact with the pumped media

Code	Pump head	Diaphragm	Valves
KT	PP	PTFE-coated	FFPM
TT	PVDF	PTFE-coated	FFPM
FT	PTFE	PTFE-coated	FFPM
ST	Stainless steel (1.4435)	PTFE-coated	FFPM

Overview of technical features:

Dimensional stability diaphragm
- Nearly no loss of capacity between atmospheric pressure and maximum pressure
- Consistently high metering precision during continual operations

Stepper motor with sinus compensation
- Uniform output over the entire stroke motion

Calibration function
- For precise metering under the given conditions of use

Integrated solenoid valve
- No dripping and no flowing back, even after long idling

Small dead volume
- Good suction
- Low danger of carry-over

Lateral connections
- The hoses are easy to screw on

IP 65 Housing
- Protected against splash

LIQUIPORT®

Chemically-resistant Diaphragm Liquid Pumps

adjustable flow rate
(manual or external)

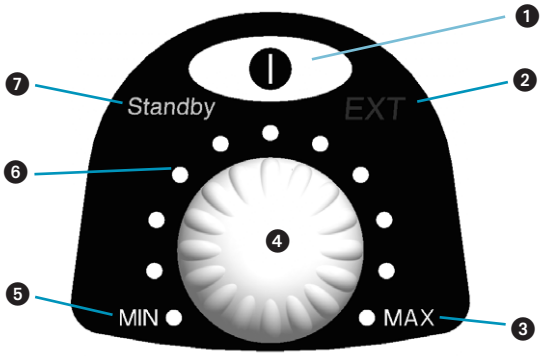
Technical features:

- Low maintenance
- Self priming
- Dry running
- Versions for external control (RC)

Flow rate (l/min) [1]	Pressure head (mWg)	Suction head (mWg)	Motor 100-240V/50-60Hz power P_1 (W)	Protection class	Connections for tube ID	Weight (kg)	Pump type [2] Order No.
0.2-1.3	10	3	12	IP 65	8 mm	1.0	NF 100 KT.18 S
0.2-1.3	10	3	12	IP 65	8 mm	1.0	NF 100 TT.18 S
0.2-1.3	10	3	12	IP 65	8 mm	1.0	NF 100 FT.18 S
0.2-1.3	60	3	18	IP 65	8 mm	1.0	NF 1.100 KT.18 S
0.2-1.3	60	3	18	IP 65	8 mm	1.0	NF 1.100 TT.18 S
0.2-1.3	60	3	18	IP 65	8 mm	1.0	NF 1.100 FT.18 S
0.2-1.3	10	3	12	IP 65	8 mm	1.0	NF 100 KT.18 RC
0.2-1.3	10	3	12	IP 65	8 mm	1.0	NF 100 TT.18 RC
0.2-1.3	10	3	12	IP 65	8 mm	1.0	NF 100 FT.18 RC
0.2-1.3	60	3	18	IP 65	8 mm	1.0	NF 1.100 KT.18 RC
0.2-1.3	60	3	18	IP 65	8 mm	1.0	NF 1.100 TT.18 RC
0.2-1.3	60	3	18	IP 65	8 mm	1.0	NF 1.100 FT.18 RC
0.5-3.0	10	3	24	IP 65	12 mm	1.5	NF 300 KT.18 S
0.5-3.0	10	3	24	IP 65	12 mm	1.5	NF 300 TT.18 S
0.5-3.0	10	3	24	IP 65	12 mm	1.5	NF 300 FT.18 S
0.5-3.0	60	3	24	IP 65	12 mm	1.5	NF 1.300 KT.18 S
0.5-3.0	60	3	24	IP 65	12 mm	1.5	NF 1.300 TT.18 S
0.5-3.0	60	3	24	IP 65	12 mm	1.5	NF 1.300 FT.18 S
0.5-3.0	10	3	24	IP 65	12 mm	1.5	NF 300 KT.18 RC
0.5-3.0	10	3	24	IP 65	12 mm	1.5	NF 300 TT.18 RC
0.5-3.0	10	3	24	IP 65	12 mm	1.5	NF 300 FT.18 RC
0.5-3.0	60	3	24	IP 65	12 mm	1.5	NF 1.300 KT.18 RC
0.5-3.0	60	3	24	IP 65	12 mm	1.5	NF 1.300 TT.18 RC
0.5-3.0	60	3	24	IP 65	12 mm	1.5	NF 1.300 FT.18 RC

[1] Water at 20°C and zero pressure head
[2] Material version, see table on the left. Pump version, Code: **S** = manual operating, **RC** = manual operating and external control

Operation of Pump (manual operating)



Position	Description	Function
1	**ON/OFF button**	Turns the pump on and off
2	**EXT**	Lights up when analog signal is being used (RC-Version)
3	**MAX**	Maximum flow rate
4	**Knob**	Adjusts the flow from 10% to 100%
5	**MIN**	Minimum flow rate
6	**LED**	Indicates the flow rate
7	**Standby**	„Standby“ lights up green, as soon as the pump is plugged in. Pump is not running

SIMDOS®

Chemically-resistant Diaphragm Dosing Pumps

Dosing simplified
(manual or external)

Technical features:

- Intuitive operation
- Adaptable to fluid characteristics
- Quick and Easy calibration
- Analog and impulse control (RC)
- Volume dosing function (1 - 1000 ml)
- Interval function without loss at the data
- Low maintenance
- Self priming
- Dry running
- Chemically-resistant versions

Flow rate (ml/min)	Pressure head (mWg)	Suction head (mWg)	Motor 100-240V/50-60Hz power P_1 (W)	Protection class	Connections for tube (ID/OD)	Weight (kg)	Pump type [1] Order No.
1-100	60	3	10	IP 65	4/6 mm	0,9	FEM 1.10 KT.18 S
1-100	60	3	10	IP 65	4/6 mm	0,9	FEM 1.10 TT.18 S
1-100	60	3	10	IP 65	4/6 mm	0,9	FEM 1.10 FT.18 S
1-100	60	3	10	IP 65	4/6 mm	0,9	FEM 1.10 KT.18 RC
1-100	60	3	10	IP 65	4/6 mm	0,9	FEM 1.10 TT.18 RC
1-100	60	3	10	IP 65	4/6 mm	0,9	FEM 1.10 FT.18 RC

[1] Material version, see table. Pump version, Code: **S** = manual operating, **RC** = manual operating and external control (see table).

Technical variants:

Code	Comment
S	■ Manual operation
RC	■ Manual operation ■ Analog control: 0 -10 V, 0 -20 mA, 4 -20 mA from 0 to 100% ■ Start / Stop through logic conrol (TTL) ■ Reset / Prime through logic control (TTL) ■ Output signal fault alarm ■ Cable for external control included

Material in contact with the pumped media

Code	Pump head	Diaphragm	Valves
KT	PP	PTFE-coated	FFKM
TT	PVDF	PTFE-coated	FFKM
FT	PTFE	PTFE-coated	FFKM

Technical datas:

- Allowed ambient temperature: + 5 up to + 40 °C
- Allowed liquid temperature: + 5 up to + 80 °C
- Maximum viscosity allowed: 150 cSt
  (reduced performance up to 500 cSt)
- Repeatability: ± 1 %
- Dimensions in mm (H x W x D) : 140 x 87 x 130

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es the right to make changes.