

MEMDOS KMS

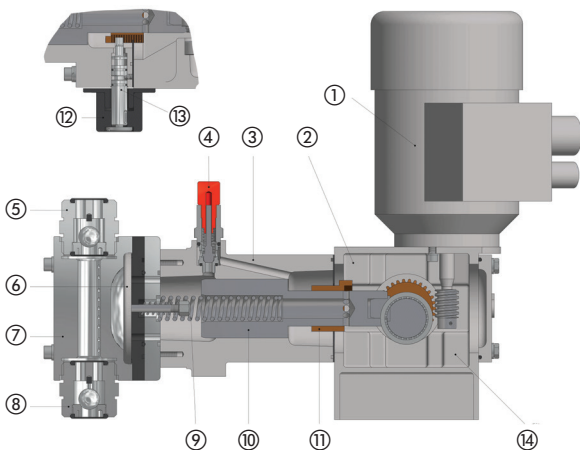
Motor piston diaphragm dosing pump 6 – 1536 l/h up to 25 bar



A modular powerhouse

The MEMDOS KMS was developed in accordance with the modular principle. This offers the advantage that – depending on the problem – you can combine various pump elements and thus obtain a dosing pump that is optimally tailored to your needs.

Design



- | | |
|-------------------------|----------------------|
| 1 Motor | 8 Suction valve |
| 2 Drive | 9 Piston spring |
| 3 Hydraulic unit | 10 Piston |
| 4 Pressure relief valve | 11 Slide valve |
| 5 Pressure valve | 12 Adjusting knob |
| 6 Dosing diaphragm | 13 Adjusting spindle |
| 7 Dosing head | 14 Hydraulic fluid |

Versatile and flexible

During the development of the MEMDOS KMS, a focus was placed on ensuring the following advantages for the user:

Ease of installation

- Quick diaphragm change possible
- No zero-point correction with dismantling of the piston flange required

High flexibility

- The rational structure requires only a minimum of spare parts storage
- The addition of a second dosing unit to the drive produces a double head pump, the MEMDOS ZKMS.
- Thanks to its symmetrical form, the piston flange can be installed on the left-hand or right-hand side of the simple pump. This ensures an economical and compact system design.
- With the addition of only four stud bolts, the dosing pump can be converted from manual stroke adjustment to electrical stroke adjustment.
- Motors with multi-range voltage (220-240/380-420V, 50/60 Hz), a high degree of protection (IP55) and a high insulation class (F) are used for the drive. Special motors (ATEX) on request.
- TÜV-checked pressure relief valves are integrated in all pumps; these prevent damage to the pump and the periphery. The pressure relief valves have been selected to match the pump capacity and the desired maximum pressure in the system.

Technical data

MEMDOS KMS, KMS-HP			6	9-HP	12	24	26-HP	46	80	100	140	137	272	
Delivery capacity at max. backpressure	l/h		6.3	9	12	24	26	46	80	100	140	137	272	
max. delivery pressure	bar		10	25	10	10	25	10	8	8	8	16	10	
Stroke volume	ml/stroke		1.7	1.6	1.7	3.4	3.1	6.8	11	14	20	20	40	
Nominal stroke frequency	rpm		60	90	120	120	140	120	120	140	120	112	112	
Suction lift for non-gassing media	mWS		2											
Piston diameter	mm		14			20		27	37	37	45	32	45	
Nominal valve width			DN8						DN20					
Weight	PVC	≈ kg	11	-	11	-	11	15		31	31	33		
	PVDF		11	-	11	-	11	15		31	31	33		
	Stainless steel (1.4571)		12			18		40	40		42			
Approved ambient temperature	°C	-5 to +45												
Approved media temperature	°C	-5 to +45												
Dosing accuracy		1 %												

MEMDOS KMS, KMS-HP			350	490	582	582-HP	882	1058	1280	1536
Delivery capacity at max. backpressure	l/h		350	490	582	582	882	1058	1280	1536
max. delivery pressure	bar		10	6	4	10	10	10	4	4
Stroke volume	ml/stroke		52	73	87	87	130	130	190	190
Nominal stroke frequency	rpm		112	112	112	112	112	140	112	140
Suction lift for non-gassing media	mWS		2							
Piston diameter	mm		52	58	65	65	80	80	95	95
Nominal valve width			DN20		DN32					
Weight	PVC	≈ kg	40	42	60	85	90		100	
	PVDF		40	42	60	85	90		100	
	Stainless steel (1.4571)		45	47	65	90	100	100	120	120
Approved ambient temperature	°C	-5 to +45								
Approved media temperature	°C	-5 to +45								
Dosing accuracy		1 %								

Technical data for highly-viscous media

MEMDOS KMS-V			12-V	20-V	50-V	137-V	175-V	235-V	291-V	440-V	640-V
Delivery capacity at max. backpressure	l/h		12	20	50	137	175	235	291	440	640
max. delivery pressure	bar		10	6		10					4
Stroke volume	ml/stroke		6.7	11.1	18.5	40.8	52.1	69.9		130.9	190.4
Nominal stroke frequency	rpm		30		45	56					
Suction lift for non-gassing media	mWS		2								
Piston diameter	mm		27	37	45		52	58	65	80	95
Nominal valve width			DN20			DN32					
Weight	PVC	≈ kg	13	15	15		68	68	74	80	100
Approved ambient temperature	°C	-5 to +45									
Approved media temperature	°C	-5 to +45									
Dosing accuracy		1 %									



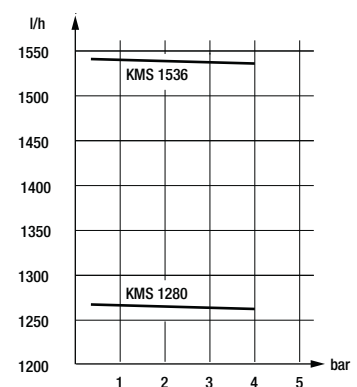
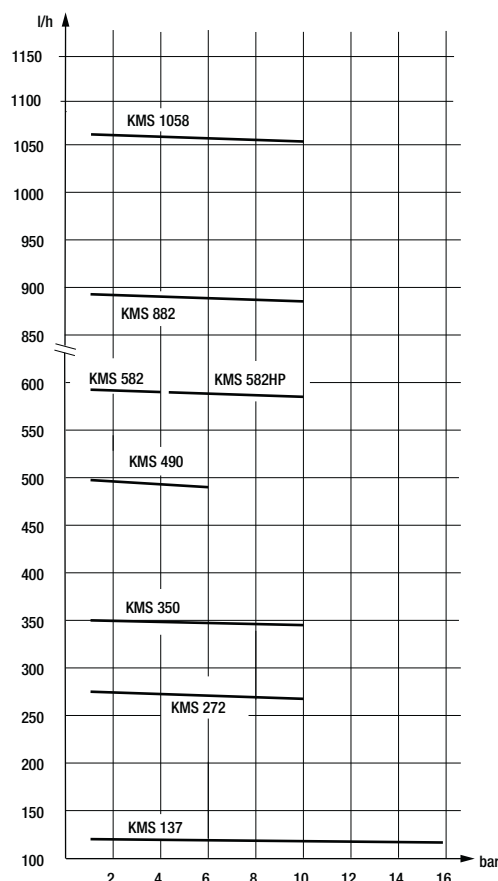
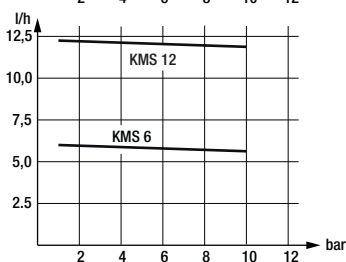
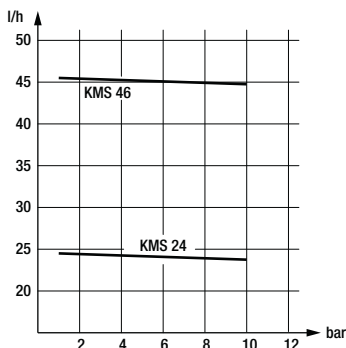
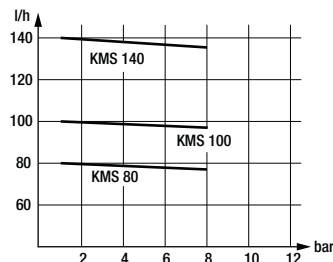
Voltage supply

MEMDOS KMS, KMS-HP	6	9-HP	12	24	26-HP	46	80	100	140	137	272	350	490	582	582-HP	882	1058	1280	1536	
400 V, 3 ph, 50 Hz, 0.09 kW	•	•	•	•	•	•														
460 V, 3 ph, 60 Hz, 0.11 kW	•	•	•	•		•														
400 V, 3 ph, 50 Hz, 0.18 kW							•	•	•											
460 V, 3 ph, 60 Hz, 0.21 kW							•		•											
400 V, 3 ph, 50 Hz, 0.55 kW										•	•	•	•	•						
460 V, 3 ph, 60 Hz, 0.65 kW										•	•	•	•	•						
400 V, 3 ph, 50 Hz, 1.1 kW															•	•	•	•	•	
460 V, 3 ph, 60 Hz, 1.3 kW															•	•		•	•	•
Protection class, insulation class	IP55, F																			

MEMDOS KMS-V	12-V	20-V	50-V	137-V	175-V	235-V	291-V	440-V	640-V
400 V, 3 ph, 50 Hz, 0.09 kW	•								
460 V, 3 ph, 60 Hz, 0.11 kW	•								
400 V, 3 ph, 50 Hz, 0.18 kW		•	•						
460 V, 3 ph, 60 Hz, 0.21 kW		•	•						
400 V, 3 ph, 50 Hz, 0.55 kW				•	•				
460 V, 3 ph, 60 Hz, 0.65 kW				•	•				
400 V, 3 ph, 50 Hz, 1.1 kW						•	•	•	•
460 V, 3 ph, 60 Hz, 1.3 kW						•	•	•	•
Protection class, insulation class	IP55, F								

Delivery characteristic curves

These delivery capacities were determined on the manufacturer's test stands. They apply at 20 °C (68 °F) for water, at 100 % stroke frequency. The delivery capacity depends on the medium (density and viscosity) and temperature. As conditions vary between installation locations, you should calibrate the dosing pump.

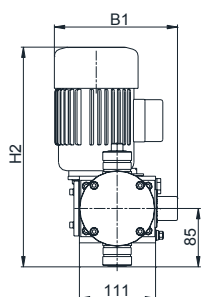
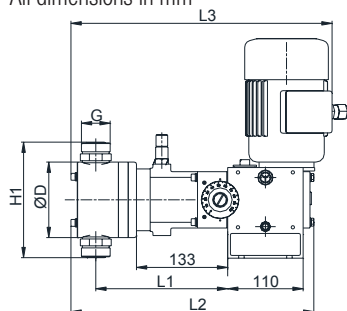


Dimensions MEMDOS KMS, KMS-HP, KMS-V

MEMDOS KMS 6 - 100, 140

MEMDOS KMS-V 12, 20, 50

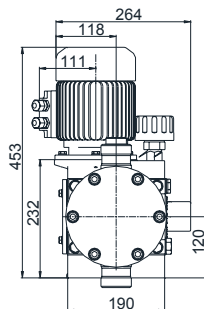
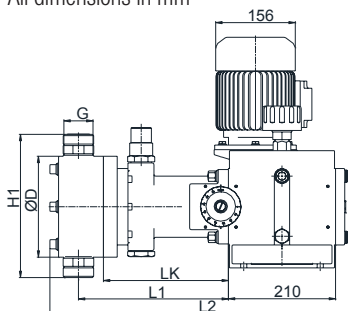
All dimensions in mm



MEMDOS KMS 137, 272 - 583

MEMDOS KMS-V 137, 175

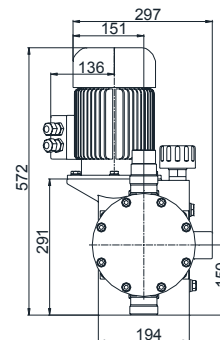
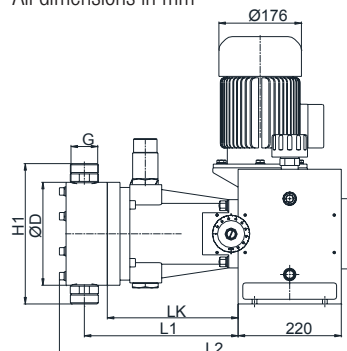
All dimensions in mm



MEMDOS KMS 582HP - 1536

MEMDOS KMS-V 235, 291, 440, 640

All dimensions in mm



KMS	Piston Ø	L1	L2	L3	H1	H2	B1	ØD	G
6,12,24	10-20	170	≈320	≈339	148	≈300	≈172	90	5/8"
46	27	183	≈333	≈352	168	≈300	≈172	110	5/8"
80, 100, 140	37-45	192	≈354	≈381	166	≈320	≈180	110	1 1/4"

KMS-V	Piston Ø	L1	L2	L3	H1	H2	B1	ØD	G
12	27	191	≈353	≈372	166	110	1 1/4"	90	5/8"
20	37	199	≈374	≈401	198	120	2"	110	5/8"
50	45	199	≈374	≈401	208	130	2"	110	1 1/4"

KMS	Piston Ø	L1	L2	LK	H1	ØD	G
137	32	272	≈553 (559*)	240	204	150	1 1/4"
272	45	277	≈558 (564*)	245	204	150	1 1/4"
350	52	280	≈565	245	232	178	1 1/4"
490, 582	58-65	294	≈591	245	281	198	2"

KMS-V	Piston Ø	L1	L2	LK	H1	ØD	G
137	45	290	≈584	240	228	150	2"
175	52	290	≈584	245	256	178	2"

KMS	Piston Ø	L1	L2	LK	H1	ØD	G
582 HP	65	294	607	245	281	198	2"
282, 1058	80	328	632 (626**)	279	300	220	2"
1280, 1536	95	336	646	281	331	250	2"

KMS-V	Piston Ø	L1	L2	LK	H1	ØD	G
235, 291	58	294	607	245	278	198	2"
440	80	336	646	281	298	250	2"
640	95	336	646	281	330	250	2"

*) p > 10 bar, PVC/PVDF

**) with stainless steel head