

## The Highlights

- Straightforward input and monitoring of the dosing rate in gal/h with perfect calibration, delivering a unique level of precision
- Smooth, virtually continuous dosing guarantees top process quality and optimum media miscibility
- The Slow Mode decelerates the suction stroke in a way, that even very viscous liquids are dosed with high precision
- Optimum suction ensures that even very small quantities can be dosed reliably
- Thanks to the powerful stepping motor, TrueDos doses with unrivalled precision, stability and effectiveness
- Versatile digital control for customized processes
- Special valve combinations for particularly viscous media
- Various possibilities for individual applications, e.g. contact or analogue signal control, batch dosing with or without timer



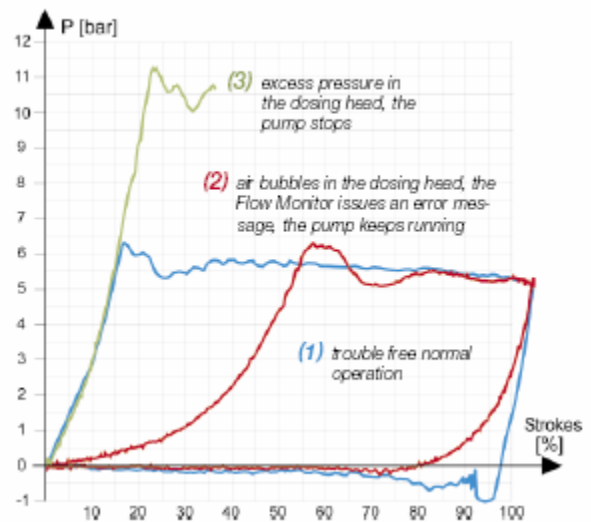
TrueDos Pump with  
PVC Head

## Flow Monitor — unique digital dose monitoring

- Dosing malfunctions - on both the suction and pressure side - are detected and reported immediately and reliably, even with very low volumetric flows and a low number of strokes.
- The system is monitored for excess pressure on the pressure side: simply set the maximum permissible pressure in the dosing head and the pump will stop if it is exceeded.
- The prevailing pressure is measured continually and can be queried at any time at the touch of a button.

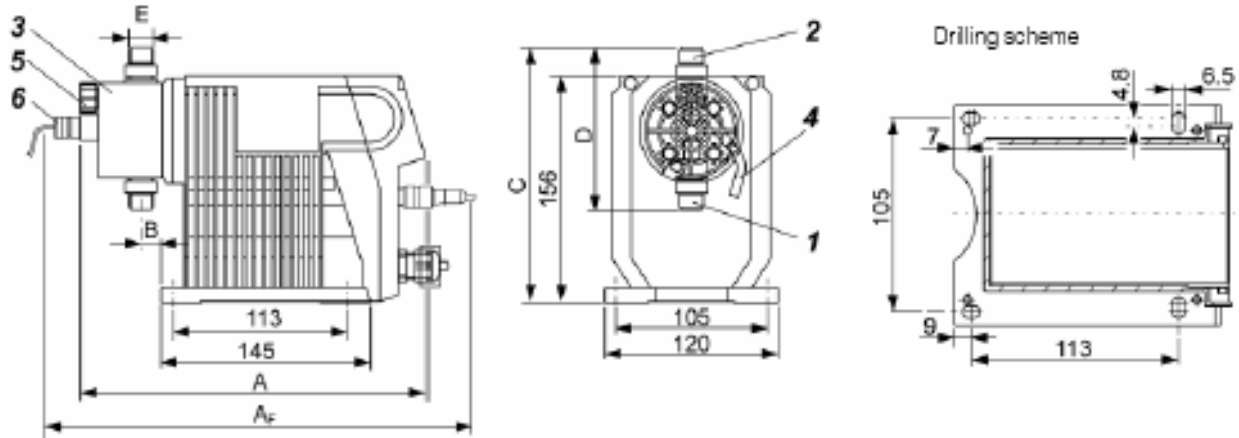


Indication diagram



## Measurements

- TrueDos with Manual Deaeration



Measurements in mm

- |   |                            |   |                         |
|---|----------------------------|---|-------------------------|
| 1 | Suction line from the tank | 4 | Deaeration line         |
| 2 | Dosing line                | 5 | Deaeration screw        |
| 3 | Dosing head                | 6 | Flow monitor (optional) |

Pump Types	A	AF	B	C	D	E
CDDI0.105-10 A/PVC/V-T-H133B	239	345	23	176	108	G 3/8"
CDDI0.58-10 A/PVC/V-T-H133B	239	345	23	176	108	G 3/8"
CDDI0.5-10 A/PVC/V-T-H133B	239	345	23	176	108	G 3/8"
CDDI1.45-10 A/PVC/V-T-H133B	239	345	23	176	108	G 3/8"
CDDI5.28-10 A/PVC/V-T-H133B	240	346	29	185	133	G 5/8"

## Pump types

- Incl. connections, deaeration line, cable and European plug
- Strokes per minute: max. 180 in normal operation, max. 120 in slow mode

Normal operation		Slow mode		V <sub>hub</sub> [ml] (p = 3 bar)	Order Number
Q [Usg/h]	P <sub>max</sub> [psi]	Q [Usg/h]	P <sub>max</sub> [psi]		
0.001-0.11	145	0.001-0.071	145	0.069	CDDI0.105-10 A/PVC/V-T-H133B
0.007-0.58	232	0.007-0.39	232	0.276	CDDI0.58-10 A/PVC/V-T-H133B
0.007-0.66	145	0.007-0.45	145	0.276	CDDI0.5-10 A/PVC/V-T-H133B
0.015-1.45	145	0.015-0.97	145	0.587	CDDI1.29-10 A/PVC/V-T-H133B
0.053-5.28	43.5	0.053-3.43	43.5	1.95	CDDI5.28-10 A/PVC/V-T-H133B

## Technical Data

Connections	CDDI0.58	* suction side PVC (PE) hose 4/6, PVDF hose 4/6, steel pipe 4/6 * pressure side PVC hose 6/12, PP or PVDF pipe 12/16, steel pipe 4/6		
	CDDI0.105 / 0.5 / 1.29	* suction side PVC (PE) hose 4/6, PVDF hose 4/6, steel pipe 4/6 * pressure side PVC hose 6/12, PP or PVDF pipe 12/16, steel pipe 4/6		
	CDDI5.28	* PVC hose 6/12, PP or PVDF pipe 12/16, steel pipe 1/4"		
Accuracy	dosing flow variation < ± 1.5%, linearity deviation < ± 1.5%			
Noise Level	± 55 dB (A), tested according to DIN 45635-01-KL3			
Max. suction height <i>liquids with viscosity similar to water</i>	CDDI0.105 CDDI0.58 / 0.5 / 1.29 CDDI5.28	<b>Normal Operation</b> flooded suction 4 m WC 3 m WC	<b>Slow mode</b> flooded suction 6 m WC 3 m WC	
Max. viscosity <i>at operating temperature</i>	CDDI0.105 / 0.58 / 0.5 CDDI1.29 / 5.28	<b>Normal Operation</b> 200 mPa s, HV valves 500 mPa s 100 mPa s, HV valves 200 mPa s	<b>Slow mode</b> 200 mPa s, HV valves 1000 mPa s 200 mPa s, HV valves 500 mPa s	
Max. admission pressure	2 bar on the suction side			
Min. backpressure	1 bar on the pressure side (at the pressure joint of the pump)			
Max. temperature	* max. ambient and operating temperature + 40° C * storage temperature - 10° C to + 50° C			
Max. relative air humidity	80%, no condensation			
Motor / voltage	dynamic stepping motor with gear, long range 110 V - 240 V, 50/60 Hz, option 24 V DC <b>power consumption 20 VA</b>			
Enclosure, protection	pump and electronics, material of enclosure: s PS FR GF 22; Pump protection: IP 65			
Weight	up to max. 3.6 kg			

## Options: voltage, display, Profibus

- Voltage: 110-240 V or 24 V DC
- Display: horizontal or at an angle
- Profibus: with or without Profibus® DP—VO incl. GSD file and address decoder document

## Electronics and electronic data

- Continuous operation: start/stop, function check, dosing head deaeration
- Memory function saves up to 65,000 pulses
- Empty tank signal: Reed contact for empty signal/pre-alert
- Flow Monitor (optional)
- Diaphragm breakage indication, dosing head with optical sensor, option
- Stroke signal (standard) or empty pre-alert (adjustable)
- Code protection against unauthorized access
- Calibrating function
- Dosing quantity counter, with reset to 0
- Tamper-proof service hours counter
- Remote On/Off
- Profibus DP interface (option)

Operating modes	Input / Display																				
Manual Operation	Input / display of dosing capacity in l/h or gal/h																				
Contact signal control	<table border="1"> <thead> <tr> <th>input / display of dosing capacity in ml/contact</th> <th>Pump type</th> <th>V<sub>min</sub> (ml)</th> <th>V<sub>max</sub> (ml)</th> </tr> </thead> <tbody> <tr> <td></td> <td>CDDI0.105</td> <td>0.001</td> <td>0.07</td> </tr> <tr> <td></td> <td>CDDI0.58 / 0.5</td> <td>0.004</td> <td>0.88</td> </tr> <tr> <td></td> <td>CDDI1.29</td> <td>0.011</td> <td>2.20</td> </tr> <tr> <td></td> <td>CDDI5.28</td> <td>0.038</td> <td>7.86</td> </tr> </tbody> </table>	input / display of dosing capacity in ml/contact	Pump type	V <sub>min</sub> (ml)	V <sub>max</sub> (ml)		CDDI0.105	0.001	0.07		CDDI0.58 / 0.5	0.004	0.88		CDDI1.29	0.011	2.20		CDDI5.28	0.038	7.86
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Current signal 0(4)-20 mA with manual weighting function	display of dosing capacity in l/h or gal/h, weighting function for the manual assignment of the volume flow in proportion to the current signal values (current input / current output)																				
Batch dosing (contact signal/manual)	input / display of dosing capacity in l/h or gal/h (per batch)																				
Batch dosing with timer function	> input / display of dosing flow (1 ml up to 999.9 l) > input / display of dosing capacity (l/h or gal/h) > input starting time of the first batch t <sub>1</sub> = 1 min. up to max. 999 h > input starting time of the subsequent batches t <sub>2</sub> = 1 min. up to max. 999 h																				
Slow mode (longer suction stroke)	reduction of the suction speed and the maximal dosing capacity to avoid cavitation or for dosing viscous liquids																				

## Inputs and outputs

Inputs and outputs		Technical data	Contact / function adjustable with software	
			standard adjustment	adjustable to
Input	contact signal	load < 12 V, 5 mA		
	current signal 0(4) - 20 mA	load < 22 Ohm		
	remote On/Off	load < 12 V, 5 mA	N.O	N.C.
	tank empty signal	load < 12 V, 5 mA	N.O	N.C.
	Flow Monitor			
	diaphragm breakage indication			
Output	current signal 0(4) - 20 mA	load < 350 Ohm		
	error signal	ohm load < 50V DC/75 V AC, 0.5 A	N.O	N.C.
	stroke signal	contact time 200 ms / stroke	N.O	N.C. / empty pre-alert
	empty pre-alert	ohm load < 50V DC/75 V AC, 0.5 A	N.O	N.C. / stroke signal

## Accessories for electronics and Profibus

Signal transmission cable incl. circular connector <i>Please indicate the cable length: 2 or 5 m!</i>	Order Number
For inputs: control contact or remote On/Off or 0/4-20 mA current input, 4-wire cable	321-205
For outputs: empty pre-alert or individual stroke signal or error signal, 4-wire cable	321-206
For output: current signal, 5-wire cable	321-215
Accessories for Profibus DP	Order Number
T-splitter with M 12 connection technology <i>Necessary for every pump!</i>	321-225
Terminating resistor M 12 <i>Necessary for every pump connected at the first and/or the last position of the bus system!</i>	321-224

## Dosing head and valve versions

Dosing head	Valve body	Material				Options: dosing heads with			
		Gaskets	Seat	Ball (*)		special valves	sets for viscous liquids (**)	dia-phragm break-age indication	Flow Monitor
				4/6	6/12 + 12/16	spring-loaded pressure valve	>100 mPa s		
PVC	PVC	Viton	Viton	glass	glass	√	√	√	-
PVC	PVC	Viton	Viton	ceramics	ceramics	√	√	-	√
PVC	PVC	EPDM	EPDM	ceramics	PTFE	√	√	√	√
PVC	PVC	PTFE	PTFE	ceramics	ceramics	√	-	-	√
PP	PP	Viton	Viton	glass	glass	√	√	√	-
PP	PP	Viton	Viton	ceramics	ceramics	√	√	-	√
PP	PP	EPDM	EPDM	ceramics	PTFE	√	√	√	√
PVDF	PVDF	PTFE	PTFE	ceramics	PTFE	√	√	√	√
st. steel	st. steel	st. steel	PTFE	st. steel	st. steel	√	√	√	-
st. steel	st. steel	Viton	Viton	st. steel	st. steel	√	√	√	√

(\*) material depending on the connection size

(\*\*) **suction and pressure side:** spring-loaded valve with steel ball, connection 4/6 (CDDI0.105) or 6/12 (CDDI0.58);  
CDDI5.28: suction side 9/12, pressure side 6/12