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FEATURES

- Wetted parts suitable for most aggressive chemicals.
- Air bleed arrangement built into pump head.
- Double ball NRV’s ensure long life.
- Wide operating voltage range viz. 180-280 V. Automatic voltage compensation to ensure dosing consistency.
- Level switch inter-lock facility available (Optional).
- Relay output: potential free change over contact, activates in the event of pump malfunction.(OPTIONAL)
- IP 65 Certified .
- Electrical Class 2 .

SPECIFICATIONS

E Dose NEO is an electronic metering pump with a digital display using a solenoid, controlled by an internal circuit to drive a reciprocating diaphragm

- Electrical : 230 Volts AC (±20%) 50HZ.
- Suction Tubing : 4/6 mm.
- Discharge Tubing : 4/6 mm.
- Dosing rate : 1.5/3/6/10 at 4 Kg/cm².
- Max Strokes / Minute : MAX.400

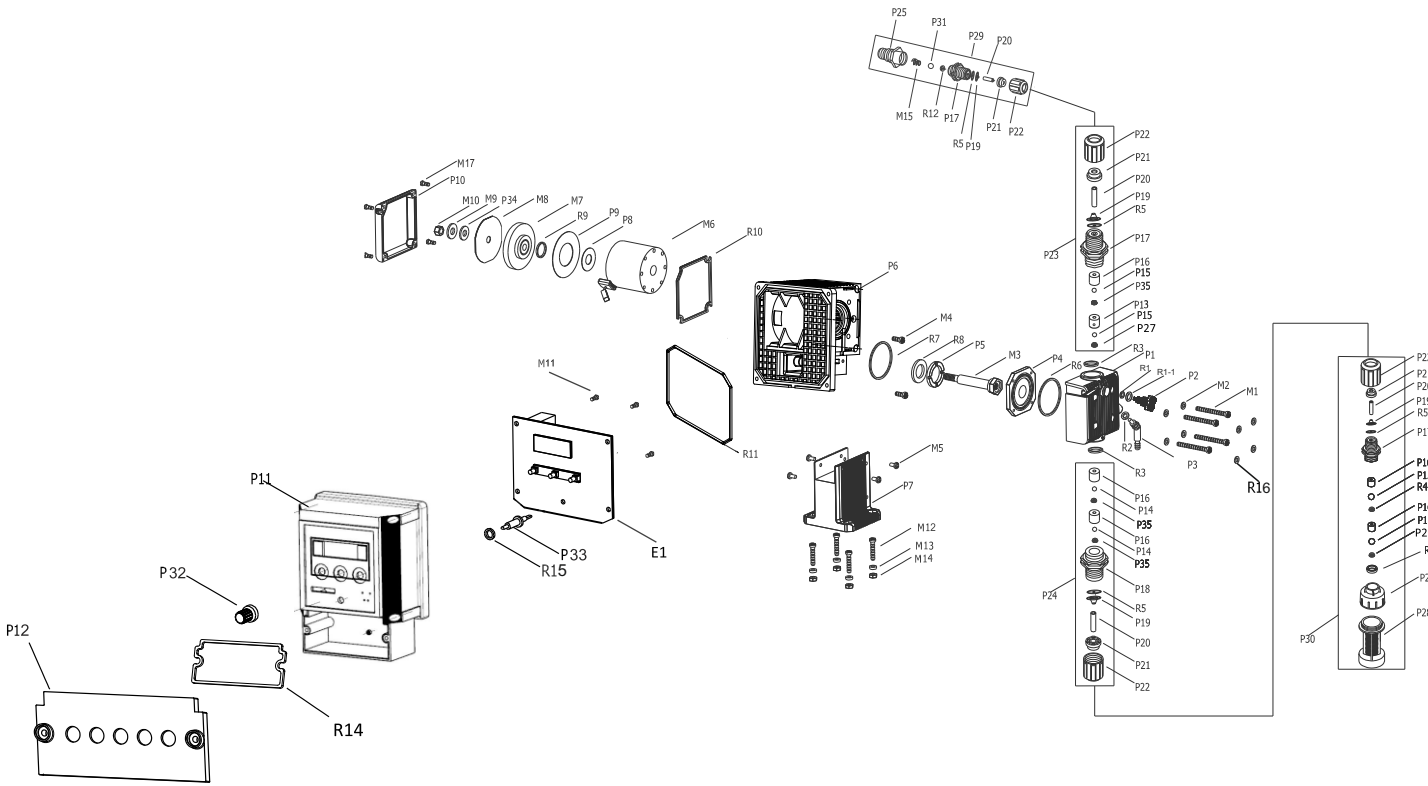
ALSO AVAILABLE

Options of Level Switch Interlock, Relay output, 4-20mA input, pulse input.

SCOPE OF SUPPLY

- Metering pump.
- 3 meter suction & discharge tubing.
- Suction filter cum foot valve.
- Injection / Back pressure assembly.
- O & M manual.

E-DOSE NEO METERING PUMP EXPLODED VIEW



(ALL DETAILS SHOWN IN THE MANUAL ARE SUBJECT TO CHANGE WITH/WITHOUT NOTICE)

PART LIST

S.NO	PART NO.	DESCRIPTION	S.NO.	PART NO	DESCRIPTION
1	P1	DOSING HEAD.	36	R1	ARV NUT SMALL “O” RING
2	P2	AIR RELEASE VALVE.	37	R1-1	ARV NUT BIG “O” RING
3	P3	ARV NOZZEL.	38	R2	ARV NOZZEL “O” RING
4	P4	DIAPHRAGM.	39	R3	DOSING HEAD “O” RING.
5	P5	DIAPHRAGM SPACER.	40	R5	NRV BODY “O” RING.
6	P6	SOLENOID HOUSING.	41	R6	DIAPHRAGM “O” RING
7	P7	MOUNTING BRACKET.	42	R7	SOLENOID HOUSING “O”RING
8	P8	PVC WASHER.	43	R8	PLUNGER WASHER.
9	P9	PVC RING.	44	R9	SOLENOID SPACER “O”RING
10	P10	SOLENOID HOUSING COVER.	45	R10	SOLENOID HOUSING COVER WASHER.
11	P11	PCB HOUSING.	46	R11	PCB HOUSING WASHER.
12	P12	PCB HOUSING COVER.	47	R12	INJECTION VALVE ADAPT.WASHER
13	P13	DISCHARGE NRV BALL HOUSING	48	R13	FILTER TOP CAP WASHER (14X19X2)
14	P14	NRV BALL PTFE (DIA 6MM).	49	R14	PCB HOUSING FRONT WASHER.
15	P15	NRV BALL GLASS(DIA6MM).	50	R15	PCB KNOB STICK WASHER.
16	P16	NRV BALL HOUSING	51	R16	BOLT HEAD CAP
17	P17	NRV BODY (DISCHARGE).	52	E1	PCB.
18	P18	NRV BODY (SUCTION).	53	E2	MAIN SUPPLY CABLE.
19	P19	NRV NOZZEL.	54	E3	2-WAY CONNECTOR.
20	P20	TUBING.	55	M1	DOSING HEAD FIT.BOLT(M4X40S.S316).
21	P21	TUBING CAP.	56	M2	DOSING HEAD FIT.WASHER (M4 S.S).
22	P22	TUBING CONNECTOR.	57	M3	PLUNGER (S.S).
23	P23	DISCHARGE VALVE ASSLY.	58	M4	SOLENOID FIT. BOLT (M4X8 S.S.)
24	P24	SUCTION VALVE ASSLY.	59	M5	MOUNTING BRACKET SCREW (M8X9.5 S.S)
25	P25	INJECTION VALVE ADAPTOR	60	M6	SOLENOID ASSLY.
26	P26	SUCTION FILTER TOP CAP.	61	M7	SOLENOID SPACER.
27	P27	BALL SEAL (PTFE WASHER)	62	M8	S.S SPRING.
28	P28	FOUR RIB ADAPTOR.	63	M9	SPRING FITTING WASHER.
29	P29	INJ VALVE ASSLY.	64	M10	SPRING FITTING NUT (M8).
30	P30	SUCTION FILTER ASSLY.	65	M11	PCB FITTING SELF TAPING (M4X6.5)
31	P31	INJ. VALVE BALL (DIA 8MM).	66	M12	M6X20 BOLT.
32	P32	FREQUENCY KNOB.	67	M13	M6 WASHER.
33	P33	PCB KNOB STICK.	68	M14	M6 NUT.
34	P34	PTFE PLUNGER WASHER(25X8.5X1.5).	69	M15	INJECTION VALVE SS SPRING.
35	P35	SMALL STEP WASHER (PTFE).	70	M16	COUPLING PLATE FIT.SCREW (M4X9.5)
			71	M17	SOLENOID HSG.COVER SCREW SELF TAPING (M4X13).
			72	M18	PCB HSG. FITTING BOLT (M3X10)



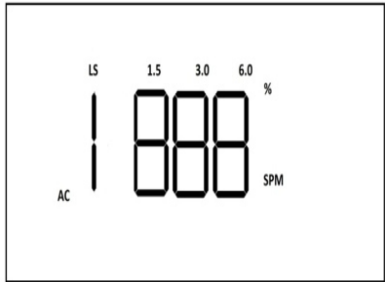
MATERIAL OF CONSTRUCTION FOR WETTED PARTS

Pump Head	: Glass filled PP
Diaphragm	: PTFE
Connectors	: Glass filled PP
Suction tubing	: PE
Discharge tubing	: PE
Ball Seal	: PTFE
Noise	: ≤ 50dB.

INSTALLATION

- Install the pump in a dry environment and mount it on a tank/surface using the mounting brackets and nut-bolts provided.
- Place the pump above the liquid to be dosed within a maximum limit of 1.5 meter suction lift.
- The discharge point (marked with arrow) should always be facing upward.
- The suction nipple will be on the lower side with the suction tubing being immersed completely in solution.
- Cut the suction tubing to the desired length and attach suction filter to it.
- Ensure that suction filter is placed vertical and always immersed completely in solution.
- Use the remaining tubing on the discharge side and connect the back pressure/injection valve to the injection pipe into which dosing is to be done.
- Connect nozzle on pump to the injection valves.
- Plug the pump into a 230 Volts AC electrical outlet.

OPERATING INSTRUCTIONS



The numbers displayed for 1.5; 03; 06; 10 indicates th capacity of pump in LPH at 4Kg/cm².

When “SPM” is displayed, numbers on display indicate actual strokes per minute.

When “LS” is displayed- it means that the pump has a level switch interlock.

When “AC” is displayed- it indicates the input voltage.

When “%” is displayed, the numbers displayed indicate the percentage setting.

1. The ON/OFF key is used to switch the pump OFF and ON.
2. When pump is in operation, by pressing the ► key, you can scroll to display either the percentage dosing, number of strokes per minute or the input A.C. voltage

STARTING THE PUMP

SWITCH ON THE MAINS POWER SUPPLY TO THE PUMP.

Press the ON/OFF key to start the pump. Turn the frequency knob fully clockwise so that the display shows 100 (This is the maximum frequency setting of the pump). Make sure all the air is primed out of the system by opening the bleed valve until liquid flows out in a continuous stream. Close bleed valve. Pump is now in operation. Adjust the knob to the desired percentage frequency to achieve required dosing flow.

[Note- By pressing the ► button once, the strokes per minute (spm) value is displayed.

Pressing a second time displays the input voltage. Press ► once again to show the percentage dosing].

LOCKING THE FREQUENCY KNOB

Normally the frequency knob can be rotated to increase or decrease the frequency of the dosing. In case you desire to lock the setting to prevent unnecessary tampering, use the following procedure.

Press the ON/OFF button to stop the pump.

Then press the ► and ▲ buttons simultaneously (display shows P A E and then cursor blinks)

Then using the ▲ key to scroll left to right and the ▲ key to increase the value- set the pass-word to 191 and then press the ON/OFF button. The display shows lck first and then OFF.

Using the ▲ Key change display to ON. Press Enter. Then press ON/OFF to start the pump.

The frequency knob is now locked. If you rotate the knob the frequency does not change and the display shows lck.

To unlock/change frequency, follow the same procedure as above and select the lck-OFF option.

PUMP ON- TO Switch ON PUMP- Press “ON/OFF Enter” Key. (Display shows “100 %”)

PUMP OFF- To switch OFF Pump- Press “ON/OFF Enter” key. (Display shows “OFF” until Power supply switched OFF.)

ADVANCED FUNCTIONS SETTING :

If you have already specified the type of advanced function required, viz. batch or interval dosing, the pump will come with the relevant option already chosen. In this case use the following method for setting [Please note-In case you haven't specified the advanced function required, this option can be selected by using the instruction in "CHOOSING ADVANCED FUNCTIONS" in case not specified to dealer earlier in the next paragraph]

PROGRAMMING FOR BATCH DOSING

This feature can be used to dose a fixed quantity of liquid by setting the number of stroke for which the pump should operate. The number of strokes can be set to a maximum of 999 multiplied by 999 (multiplying factor).

- a. Display shows b A T and the b o u
- b. Press ENTER. Display shows O F F
- c. Press ► and ▲ together. Display shows P A S and then 0 0 0 left most Zero blinks.
- d. By pressing key ► you can choose the next level. Display showso blinking of the level chosen.
- e. By pressing ▲ numbers will change from 0 to 9.
- f. Press ▲ to change number and press ► to choose level.

- g. Obtain “678” on the screen and then press “ON/OFF ENTER” key.
- h. Display will show Auto / Manual.
- i. Select Auto.
- j. Display shows " b A T " which is batch mode and then 0 0 0 with left 0 blinking.)
- k. For selecting up to 999 we can select by pressing the ► and ▲ , for to greater than 999 then we have to choose multiplication factor.
- l. For factor press ENTER, display shows F A C
- m. Selecting 001 will give us the first selection “999” multiplied by “001”; selecting appropriate number like 002 will give “999X002”; the required number of strokes can thus be achieved by choosing the strokes and the multiplication factor, maximum number of strokes of “999X999” can be achieved.
- n. Press Enter display shows b A T and then b o u
- o. Press ENTER again, display shows O F F ; this means the batch is set.
- p. Once we start the pump again, the ▲ key has to be pressed to start the pump.
- q. For pump OFF, “ON/OFF ENTER” key has to be pressed to switch OFF the pump.
- r. Even when supply is switched OFF, the program is retained for next operation.

PROGRAMMING FOR INTERVAL DOSING

This function can be used to operate the pump in fixed intervals i.e. the pump can be programmed to remain ON for a certain period of time and OFF for a certain time after which the cycle will repeat.

- a. Display shows I n T and then off
- b. Press ► and ▲ together. Display shows P A S and then 0 0 0 left most Zero blinks.
- c. Enter 678 and press ENTER.
- d. Display will show Auto/Manual.
- e. Select Auto press enter.
- f. Display shows o n T and then 0 0 1 left most Zero blinks, this means ON time is 1 min and we can set maximum of 999 minutes by using ► and ▲ keys press enter.
- g. Display shows O f T and then 0 0 1 left most Zero blinks, this means OFF time is 1 min and we can set maximum of 999 minutes by using ► and ▲ key
- h. Press Enter.
- i. Press ON/OFF Enter again to start the pump.
- j. The pump will be ON for selected minutes and then OFF for selected minutes.
- k. Display will show o n T and the selected times alternately during pump functioning.
- l. Display will show O f T and then selected time alternately during pump OFF.
- m. By pressing the ON/OFF ENTER, we can stop the pump.

CHOOSING ADVANCED FUNCTIONS IN CASE NOT SPECIFIED TO DEALER EARLIER

1. Press ► and ▲ together. Display shows P A S and then 0 0 0 left most Zero blinks.
2. By pressing key ► you can choose the next level. display shows blinking of 0 the level chosen.
3. By pressing ▲ numbers will changes from 9 to 9.
4. Press ▲ to changes number and press ► to choose level.
5. Obtain "567" on the screen and then press " ON/OFF ENTER" key.
6. Firstly display shown M A N . Showing Manual mode. Press Enter to select this mode.
7. Press ▲
8. Secondly display shows b A T . Showing Batch mode.
9. Press ► Enter to select this mode.
10. Thirdly display show I n T . Showing Interval mode. Press Enter to select this mode.

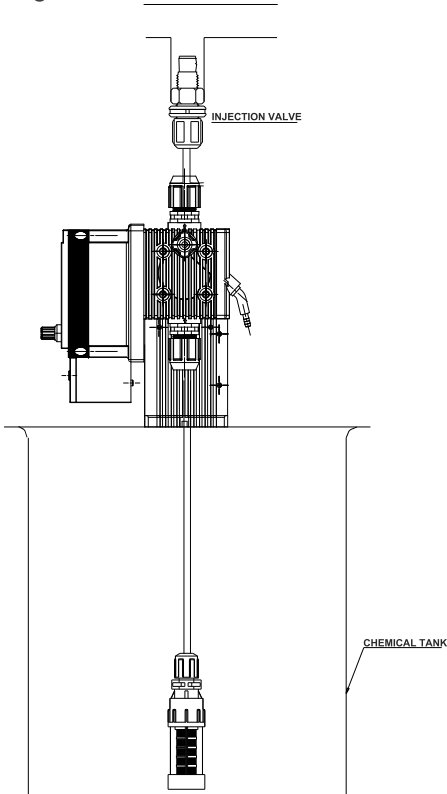
PRECAUTIONS

- A) Electrical
- Ensure voltage is within range specified for the pump ie. 180- 280 Volts.
 - Electrical connection should be made between “Live-Neutral” & Not Live-Ground”.
 - Avoid giving supply to dose from the same line as heavy electrical equipment.

B) General CAUTION

- Install pump in any shaded place AWAY from direct sunlight.
- Pump is resistant to dust and water but cannot be used in a sub-merged condition.
- Clamp the mounting bracket adequately so that vibrations do not loosen the mounting.
- Before performing any maintenance on the pump, release internal pressure by operating bleed valve and disconnect power supply.

Please confirm compatibility of wetted parts with chemical being dose.



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