

ACCURATE dispensing system

Oina VV AB Stäksholmen SE-139 90 Värmdö, Sweden
Tel:+46 8 773 34 35 Fax +46 8 571 60 145 www.oina.se

GETTING STARTED

Each Accurate dispensing system contains

- 1 ea Control unit (24VDC, 35VA)
 - 1 ea Pump unit (24VDC, 30W)
 - 1 ea Power Supply (Input 100-240VAC, 50/60Hz, 800mA. Output 24VDC, 35VA)
 - 1 ea connection cable with one male and one female 9-pole D-sub connector to be used between the Control unit and the Pump unit
 - 1 ea User Guide
- Customised remote cables, foot pedals or other accessories may added on request
-

How to set up the ACCURATE dispensing system

WARNING!

**No other parts will be used for this system except parts delivered from Oina VV AB!
Oina VV AB is not responsible for any injury or damage caused by wrong use!**

- *Connect Control unit and Pump unit to each other via the enclosed connection cable with one male and one female 9-pole D-sub connector.
Female to be connected to the control unit and the male to the pump unit to.
 - *Connect remote control cable or foot pedal or other accessories if requested
 - *Connect the enclosed Power Supply to the Control unit, then to the main power, (100-240VAC, 50/60Hz, 800mA)
 - *Green LEED with "METERING" will light now.
 - * The Control unit will remember the last program when it will be connected next time or after power failure,
-

FUNCTIONS:

Metering: Speed control in 1000 steps, 2-100% speed. **Max speed = 1500rpm**

Single dispensing: 1-999 seconds/dispensing

Single dispensing: 1-999 strokes/dispensing

Single dispensing + Suck Back: 1-999 strokes/dispensing and 1-999 strokes for Suck Back

Multidispensing, endless: 1-999 strokes/dispensing, pause time 1-999 sec between dispensings

Multidispensings + Suck Back, endless: 1-999 strokes/dispensing, 1-999 strokes Suck back, pause time 1-999 sec between dispensings

Multidispensings, 1-999 times: 1-999 strokes/dispensing, pause time 1-999 sec between dispensings

Multidispensings + Suck Back, 1-999 times: 1-999 strokes/dispensing, 1-999 strokes Suck back, pause time 1-999 sec between dispensings

Home position, chosen manually

Others: Forward, Reverse and momentary Max Speed (only Metering)

Remote Control Functions via 15 poles D-sub

In signals

Start Forward, Internal pull-up to +5V (10kOhm)

Start Reverse, Internal pull-up to +5V (10kOhm)

Stop, Internal pull-up to +5V (10kOhm)

0-20mA

4-20mA

Off

Out signals

Forward Output logic level 0-5V in serial with 1kOhm

Reverse Output logic level 0-5V in serial with 1kOhm

Stop Output logic level 0-5V in serial with 1kOhm

0-20mA

4-20mA

Delay 0,01sec-10 sec (Special function for Magnetic valve)

RS232 via 9 pole D-sub, not in function

METERING:

*Press **I/O** to light up display for **METERING**. Green LED lights up in the same time.

(If “out” or “inP” is visible, and green LED for **METERING** is off, press **I/O** above the **METERING** display again until numbers are visible and green LED lightening.

If some of the other displays are visible, switch them off with the **I/O** above the display)

*Set % **SPEED** via **+** and **-** arrows from 2.0-100% (speed less than 2.0 is not stable)

*Start metering via **FWD** or **REV** arrows

*Press **MAX** for momentary max speed for ex. for flush

*Press **STOP** for stop

*Press **STOP** when changing direction between **FWD** and **REV**

You are always able to change speed during running.

SINGLE DISPENSING, 1-999 sec:

*Set % **SPEED** as with **METERING**

*Press **I/O** to light up display for **MULTIDISPENSING**

* Set dispensing time via **+** and **-** arrows from 1-999 seconds.

*Start dispensing via **FWD** or **REV** arrows

*Press **STOP** for stop

SINGLE DISPENSING, 1-999 strokes:

*Set % **SPEED** as with **METERING**

*Press **I/O** to light up display for **SINGLE DISPENSING**

*Display with **MULTIDISPENSING** must be off!

* Set **NUMBER OF STROKES** via **+** and **-** arrows, 1-999 strokes

*Start dispensing via **FWD** or **REV** arrows

*Press **STOP** for stop

SINGLE DISPENSING, 1-999 strokes + Suck Back, 1-999 strokes:

*Set % SPEED as with METERING

*Press **I/O** to light up display for SINGLE DISPENSING

*Display with MULTIDISPENSING must be off!

* Set NUMBER OF STROKES via **+** and **-** arrows, 1-999 strokes

*Press **MODE**, green LED above **MODE** will light up and all displays will show 000

*Set numbers of strokes from 1-999 strokes for Suck Back via **+** and **-** arrows.
Higher numbers than 000 will light up SUCK BACK

*Press **MODE**, green LED above **MODE** will be off now,
but red LED will light up SUCK BACK

*Start dispensing via **FWD** or **REV** arrows

*Press **STOP** for stop

MULTIDISPENSING, endless:

*Set % SPEED as with METERING and NUMBER OF STROKES as with SINGLE DISPENSING.

*Press **I/O** to light up display for MULTIDISPENSING

* Set INTERVALS IN SEC via **+** and **-** arrows from 1 to 999 seconds

*Start dispensing via **FWD** or **REV** arrows

*Press **STOP** for stop

MULTIDISPENSING, endless + Suck Back :

*Set % SPEED as with METERING and NUMBER OF STROKES as with SINGLE DISPENSING.

*Press **I/O** to light up display for MULTIDISPENSING

* Set INTERVALS IN SEC via **+** and **-** arrows, from 1 to 999 seconds

*Press **MODE**, green LED will light up and all displays will show 000

*Set numbers of strokes for Suck Back via **+** and **-** arrows. Higher numbers than 000 will light up SUCK BACK

*Press **MODE**, green LED above **MODE** will be off now,
but red LED will light up SUCK BACK to indicate that Suck Back function is on.

*Start dispensing via **FWD** or **REV** arrows

*Press **STOP** for stop

MULTIDISPENSING, 1-999 times:

*Set % SPEED as with METERING and NUMBER OF STROKES as with SINGLE DISPENSING.

*Press **I/O** to light up display for MULTIDISPENSING

* Set INTERVALS IN SEC via **+** and **-** arrows from 1 to 999 seconds

*Press **MODE**, green LED will light up and all displays will show 000

*Set numbers of dispensing from 1-999 under the REPEATS display via **+** and **-** arrows.
Higher numbers than 000 will light up REPEATS

*Press **MODE**, green LED above **MODE** will be off now,
but red LED will light up REPEATS to indicate that numbers of dispensing is on.

*Start dispensing via **FWD** or **REV** arrows

*Press **STOP** for stop

MULTIDISPENSING, 1-999 times + Suck Back 1-999 strokes:

*Set % SPEED as with METERING and NUMBER OF STROKES as with SINGLE DISPENSING.

*Press **I/O** to light up display for MULTIDISPENSING

* Set INTERVALS IN SEC via **+** and **-** arrows from 1 to 999 seconds

*Press **MODE**, green LED will light up and all displays will show 000

*Set numbers of dispensing from 1-999 under the REPEATS display via **+** and **-** arrows.
Higher numbers than 000 will light up REPEATS

*Set numbers of strokes for Suck Back via **+** and **-** arrows. Higher numbers than 000 will light up SUCK BACK

*Press **MODE**, green LED above **MODE** will be off now,
but red LED will light up REPEATS and SUCK BACK to indicate that numbers of dispensing and Suck Back function is on.

*Start dispensing via **FWD** or **REV** arrows

*Press **STOP** for stop

MODE FUNCTION “RATIO”

Will be used when gearbox is added to the motor.

*Press **MODE**, green LED will light up and all displays will show 000

*Set gear ratio, choice from 1-999

*Press **MODE**, green LED above **MODE** will be off now,
but red LED will light up RATIO to indicate that gear ratio function is on.

MANUALLY SET UP FOR HOME POSITION:

* Press **STOP**

*Press **STOP** and **MAX** in the same time

*Adjust shaft or pump head position by hand for wished home position

*Start dispensing or metering. The pump will stop each time in the chosen position.

REMOTE CONTROL FUNCTIONS:

*Press **I/O** with **METERING**. Green LEED will go out and Remote control functions will be visible

METERING display shows now **inP** (for In signals) and **out** (for Out signals)

SINGLE DISPENSING display shows

When **inP** is active:

For (for FORWARD) to start the pump FORWARD via remote control
Choice **HI** (for high) or **LO** (for low) via arrows on **MULTIDISPENSING** display

bAc (for REVERSE) to start the pump REVERSE via remote control
Choice **HI** (for high) or **LO** (for low) via arrows on **MULTIDISPENSING** display

StP (for STOP) to stop the pump via remote control
Choice **HI** (for high) or **LO** (for low) via arrows on **MULTIDISPENSING** display

cur (for current) to control the speed via remote control
Choice **OFF** (for no remote control) or **0.20** (for 0-20mA) or **4.20** (for 4-20mA)
via arrows on **MULTIDISPENSING** display

When **out** is active:

For (for FORWARD) signal out via remote control when pump run FORWARD
Choice **HI** (for high) or **LO** (for low) via arrows on **MULTIDISPENSING** display

bAc (for REVERSE) signal out via remote control when pump run REVERSE
Choice **HI** (for high) or **LO** (for low) via arrows on **MULTIDISPENSING** display

StP (for STOP) signal out via remote control when the pump stop
Choice **HI** (for high) or **LO** (for low) via arrows on **MULTIDISPENSING** display

cur (for current) signal out via remote control when the pump running

dEL (for delay)

DELAY FUNCTION FOR 12VDC MAGNETIC VALVE:

THIS FUNCTION IS ONLY FOR FORWARD DIRECTION!

Choice length of the delay time from 0,01 to 9,99 seconds on **MULTIDISPENSING** display

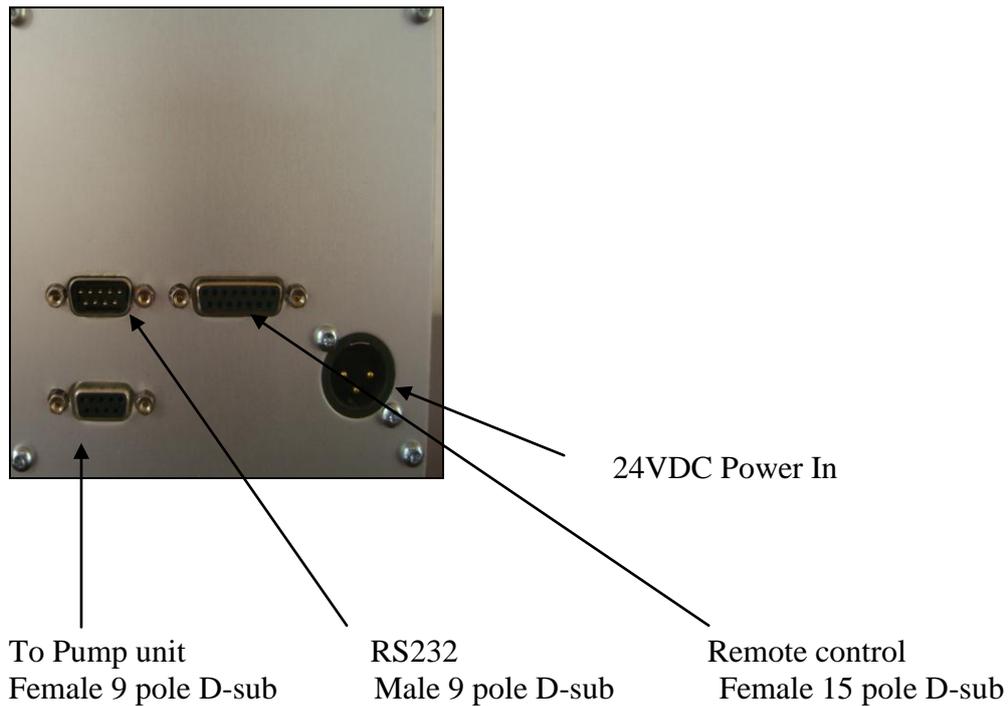
When all remote function futures are choicen

*Press **I/O** with **METERING**. Green LEED will light up

*Press **FWD** arrow for start metering or dispensing

ACCURATE dispensing system

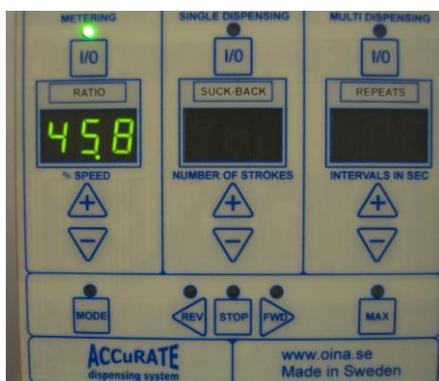
Control unit connections, rear panel
(1)



Few samples for different programs

2010-11-2929/11/2010

Start position / METERING
(2)



Metering 45,8% Speed

SINGLE DISPENSING 1-999 sec
(3)



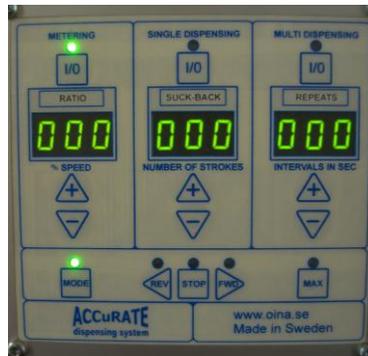
Single dispensing, 5sec/disp at 45,8% Speed

Multidispensing, endless
(4)



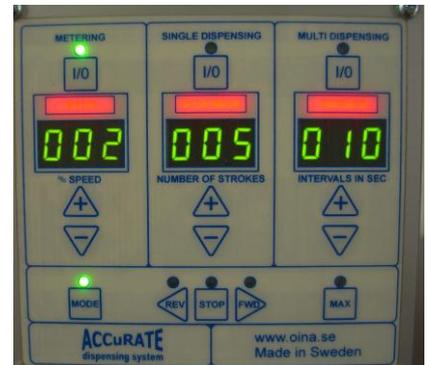
45,8/Speed, 12 strokes/disp
5 sec intervals between
dispensings

Start of mode program
(5)



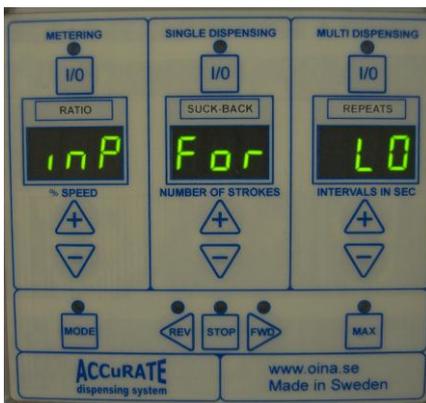
Starting set up MODE

Mode chosen for RATIO,
SUCK-BACK and REPEATS
(6)



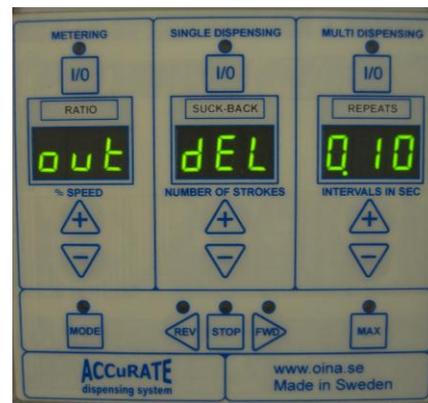
MODE program for
Ratio 2
Suck Back 5 strokes
10 cycles

Remote control
Out-signals
(7)



In signal, Forward, Low

Remote control
Out signals, Delay function
(8)



Out signal delay 0,10 sec