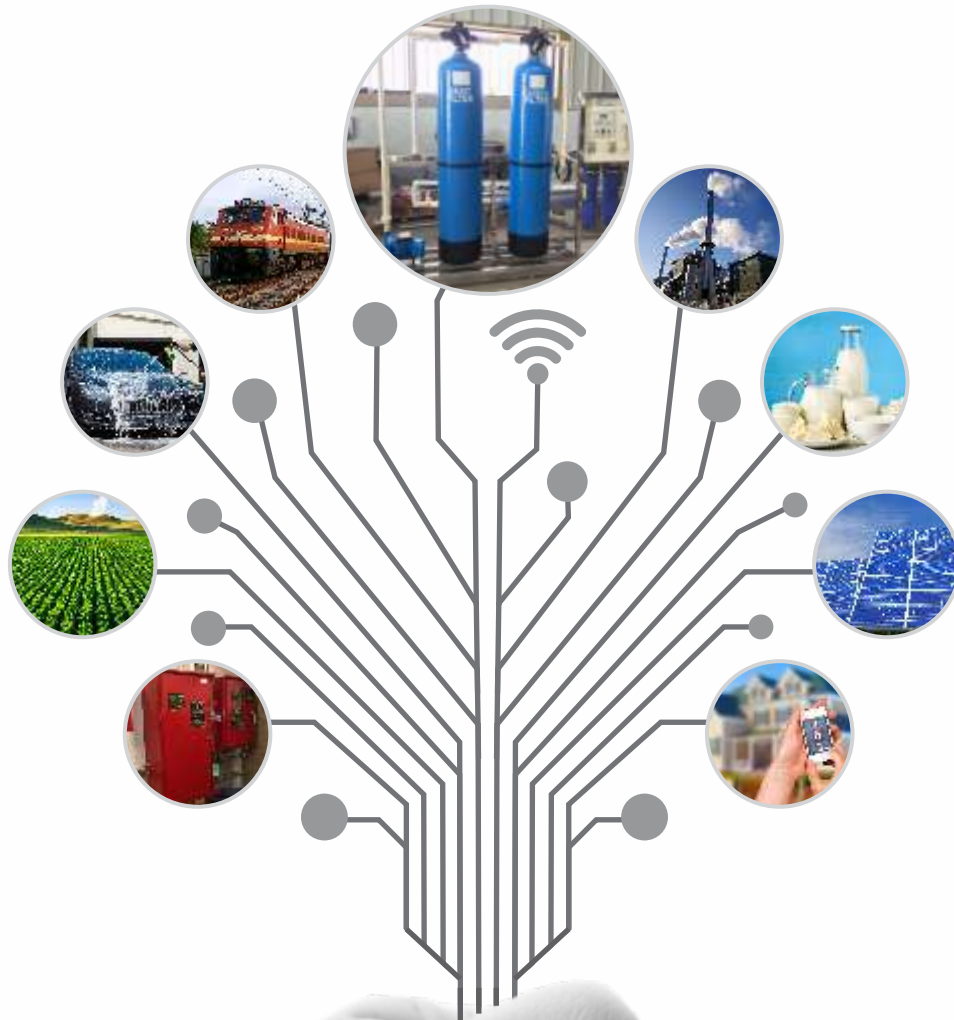


WATER TREATMENT DIVISION



INNOVATING
POWER OF
CONTROL

DOELIN[®]
Exceeding Expectations



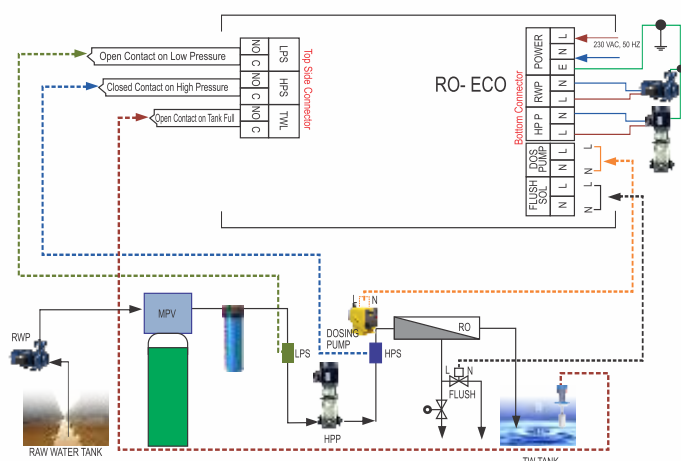
RO 11 ECO

- Designed to control small RO plants.
- Compact.
- Uses state of the art microcontroller.
- 4 digit 7 segment bright display.
- 3 key pad for setting motor trip parameters.
- Scrolling display of motor currents.
- Over and Under load (dry run) protection for both pumps.
- Over and Under voltage protection.
- Auto / Manual mode selectable.
- Pump protection in Manual mode.
- Low pressure switch input.
- High pressure switch input.
- Treated tank level input.
- Flush valve power output (230 VAC).
- Dosing pump power output (230 VAC).
- Suitable for pumps upto 2 hp (30A relay contact).
- Panel mounting (Cutout: 140 w x 165 h mm)
(Kit for surface mounting provided)

Specifications:

- Input Supply : 230VAC +/- 10 , 50Hz.
- Pump Control Output: RWP, HPP 230VAC Single Phase at 2HP each.
- Control Inputs : Treated water Float Switch, Low Pressure Switch, High Pressure Switch.
- Mounting : Panel / Surface Mounting.

Connection Diagram



RO 11/13/33 REGULAR

- 3 key interface for control and on site programming.
- 2 line for Regular and 4 line for Premium LCD display for programming and process status.
- One point flow sensing. (Regular RO)
- Two point flow sensing. (Premium RO)
- 4-20 mA transmitter input, settable span (Premium RO)

Specifications:

- Supply Voltage :
 - 230VAC $\pm 10\%$, 50Hz. For 11M model (Upto 3 HP),
 - 400VAC $\pm 10\%$, 50Hz. For 13M & 33M model (Upto 7.5HP)
- Mounting : Panel Mounting.
- Dimensions : 225(W) x 255(H) x 120 (D)
- Cutout Size : 196 (W) x 226 (H).

Input / Outputs:

Control Input For Auto Mode:

- Auto MPV Interface -2 Nos.
- Raw Water Tank Empty (RWL).
- Treated Water Full Level (TWL)
- High Pressure (HP)
- Low Pressure (LP)
- Flow sensor – 1 nos. (Regular)
- Flow sensor – 2 nos. (Premium)
- 4- 20 mA Transmitter Input – 1nos. (Premium)

Control Outputs for Auto Mode:

- Raw Water Pump on/off (1 Ph @ 3HP and 3Ph @ 7.5HP)
- High Pressure Pump on/off (1 Ph @ 3HP and 3Ph @ 7.5HP)
- Flush valve Solenoid on/off (230VAC , 5A)
- "HP PUMP ON" feedback (Pot Free)
- Dosing Pump Power Output. (230VAC , 5A)
- Auto MPVs Power Output. (230VAC , 5A)

Control:

- Controls : 3 Programming/ Pump Control Keys,
1 Control Switch (Power On/Off)

Indication:

- Regular : 2X16 LCD Display, LED Indications for : LPS, HPS, Flush Solenoid On, RWP On, HPP On, RWT, TWL, Aux1 & 2 Inputs.
- Premium : 4X16 LCD Display, LED Indications for: LPS, HPS, Flush Solenoid On, RWP On, HPP On, and Aux1 & 2 Inputs



RO 11/13/33 PREMIUM

Highlights RO 11/13/33 Regular/Premium:

- Designed to control small and medium RO plants.
- Compact panel mounting.
- Uses state of the art microcontroller.
- LED indication for device status.
- Conductivity reading with high (alert) and very high (Trip setting).
- Low pressure sensing at HPP suction.
- High pressure sensing at HPP delivery.
- Flush solenoid valve control.
- Slow and fast flush with individual settings for time.
- Auto flush interval settable time.
- Raw water tank level sensing.
- Treated water tank level sensing.
- RO operational hour count.
- Pre-treatment selectable in manual as well as auto mode.
- Digital inputs provided for interfacing with Auto Multi Port Valves for backwash.
- Backwash alert time setting for manual pre-treatment with service relay.
- Scrolling display of voltage and motor currents.
- Over and Under load (Dry run) protection for both pumps.
- Over and Under voltage protection.
- Single phasing and current unbalance faults (RO 13 and RO 33 models).
- Auto / Manual mode selectable.
- Pump protection in Manual mode.
- Password protection for set parameters.
- Password can be changed.



RO 11/13/33 GSM PREMIUM

- Preprogrammed RO operation, process interlocks and time delays.
- Interactive Auto RO operation through panel keys in case of faults.
- 4 x 16 LCD display interface.
- 3 key interface and LCD for control and onsite programming.
- Process status message display.
- Provides operation with Automatic Multi-Port Valves.
- Backwash time settings and alarm for Manual Multi Port Valve.
- Plant run time display.
- Conductivity display with pre-alarm and trip settings.
- 2 flow measurements, with low flow alarm and very low flow trip.
- One 4-20mA transmitter input, with settable span.
- Scrolling display, with scroll lock.
- Display for all the measured process and electrical parameters.
- Easy user programmable settings.
- All the measured parameters sent as a single package on SMS.
- Supplied with a versatile smart phone android app (Optional).
- Data also available on non-smart phones in text format.
- Remote setting of all parameters.
- Password protected process and electrical parameter settings.
- Alarm Flash/Fault message display.
- Front panel LED indications for active devices.
- Auto / Manual operation.
- Pump motor voltage / current display and pump motor protection.
- Pump protection in manual mode.
- Compact panel mounting.
- Rugged and Reliable.

Specifications : Same as RO 11 / 13 /33

Communication : Modem with GSM Antenna.

- (For GSM RO11/13/33)





COIN ATM

Specifications:

- Power: 150-270VAC /12VDC -Solar (Optional).
- Solenoid Output: 230VAC, 12VDC (optional) For External Solenoid Valve.
- Flow Sensor: Pulse Type.
- Level Sensing: Treated Water Level Floaty.
- Display: 2X16 LCD.
- Programming Keys: 3.
- Activation through Coin Acceptor.
- Can be programmed for 6 different types of coins.
- Water Inlet Connection: 3/4" (External)- Optional.
- Outlet Connection: 3/4" (External)-Optional.
- Water Column : 1 m (min).
- Data on GSM (Optional)

Description :

The system comprises of state of the art technology Water ATM controller, Flow Sensor, a 230VAC (12 VDC-optional) solenoid valve and suitable piping with convenient external inlet and outlet connections(Optional).

Water ATM controller has a 2X16 LCD display along with 3 nos. of programming keys. This facilitates the selection and navigation through the menu driven setting options. The controller also features a built in RFID reader/writer or / and Coin acceptor, Real Time Clock, Pulse type Flow Sensor interface, control output for Solenoid Valve.

Other DOELIN® Water Treatment Control Systems :
Star Delta RO, STP/ETP, UF, Grey water Treatment, Special Purpose Embedded Applications.



COMBO CARD ATM



RFID CARD ATM

Specifications:

- Power : 150-270VAC 12VDC -Solar (Optional).
- Solenoid Output: 230VAC, 12VDC (Optional)- For External Solenoid Valve.
- Flow Sensor: Pulse Type.
- Level Sensing: Treated Water Level Floaty
- Display: 2X16 LCD, Display.
- Programming Keys: 3.
- Activation: RFID Card (Smart card)
- Programming/ Card Charging: Locally as well as through hand held programmer (Optional).
- Data on GSM (Optional)

