



### FBXG1: GSM manual water pump controller

Send SMS from any mobile phone to turn ON/OFF the motor pump. Supports dual pump. Either single phase less than 2HP direct drive or DOL drive pump for more than 2HP.

SMS commands:

**FBXON:** Turns ON pump on DOL mode

**FBXOFF:** Turns OFF pump in DOL mode

**FBXPON:** Turns ON pump in direct mode drive

**FBXPOFF:** Turns OFF pump in direct mode drive

**FBXCHK:** Checks the status of the pump

**FBXRST:** Soft resets to change modes

#### Features:

- SMS from mobile phone to turn the pump ON/OFF
- SMS to check the status of the pump
- Dual mode motor pump support
  - Direct drive for less than 2HP motor
  - DOL drive for more than 2HP motor
- Automatic SMS acknowledgement after turning pump ON/OFF
- 2-port 30Amps potential free relay outputs
- No need to program or configure SIM card number to the device
- 2G/3G/4G/5G SIM module card can be used to communicate
- The transmitter GSM protocol to send alert messages

#### Technical details:

- Inbuilt Dual Band GSM/GPRS engine
- Transmitting power: Class 4 (2W) at EGSM 900, Class 1 (1W) at DCS 1800
- Operating Temperature: -30°C to +80°C
- Storage Temperature: -5°C to +90°C
- DATA GPRS: download transfer max is 85.6KBps, upload transfer max 42.8KBps

Indicators for pump controller receiver:

Power: GREEN

Motor ON: GREEN

Automatic /Manual mode: RED

SMS propagation delay, can vary from 10-20 seconds to over 3-4 minutes. All messages will be executed on first come first serve

#### Application and features:

- Automatic turning ON/OFF a water pump from a distant location
- Turning motor pump ON/OFF by sending SMS commands from another mobile / cell phone.
- Automatic / manual mode of operation

#### Precautions and mounting locations:

- Mounted on the top of door / wall
- Easy mounting with 4 screws to secure it tightly
- IP65 enclosure unit, robust and weatherproof
- For indoor/outdoor purposes
- Keep away from metallic surroundings

#### Wall mount calling unit:

- Transmitter enclosure type: IP 65 (color grey)
- Size: 190 x 140 x 70 mm
- Outside body: metal enclosure
- Metallic enclosure unit: :280 x 230 x 130mm
- Metallic enclosure weight: 1500 gms

#### Operating voltage:

110-220VAC/50-60Hz to 12VDC converter adapter supplied.

Unit can also be plugged to any 12V external battery. Active working hours depends on the battery power.

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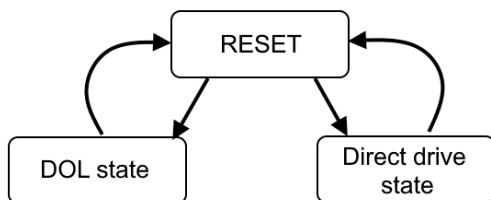
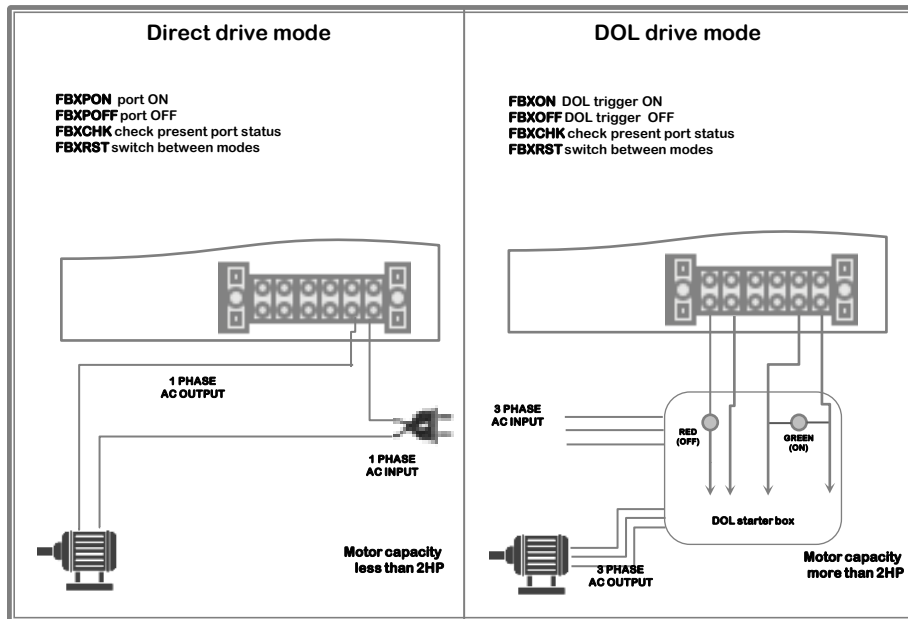
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### Internal state machine:

- Default state is RESET
- Valid messages in DOL state:
  - **FBXON**
  - **FBXOFF**
- Valid messages in direct drive state:
  - **FBXPON**
  - **FBXPOFF**
- To check pump status: **FBXCHK**
- To switch between models: **FBXRST**

### Steps to use:

- Step 1:** Make connections as per the wiring connections shown in the diagram above, depending on the motor capacity.
- Step 2:** Insert an active SIM card in the right side slot of the device
- Step 3:** Connect the 12volt power supply chord to the DC jack. The 110-220VAC to 12VDC adapter plug comes along with the set.
- Step 4:** Now set send SMS from any mobile phone to the SIM card number inserted in the device to make the pump ON or OFF.

The GSM pump controller device operates in 2 possible modes:

- **Mode 1:** DOL drive for more than 2HP motor
- **Mode 2:** Direct drive pump mode for pumps less than 2HP

### Indicator debug on device:

- GREEN indicator is constant high (power up)
- BLUE indicator
  - Slow blinks once every 3 seconds, indicates that device is connected the GSM network (from the nearest available tower)
  - Fast blinks once every 1 second, indicates that the device has lost connection with the GSM tower. In this case restart the device with a few minutes halt time
- RED indicator ON means pump is in ON condition

### Note:

- On successful message reception, sender mobile phone will receiver an acknowledgement SMS
- At times of heavy network traffic or promotional messages on SIM card, the execution may even take up to 3-4 minutes
- It is advised to occasionally delete unwanted SMS in the SIM

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