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Made In Britain

BLDA-2
Water Leak Detection Manual

Contents

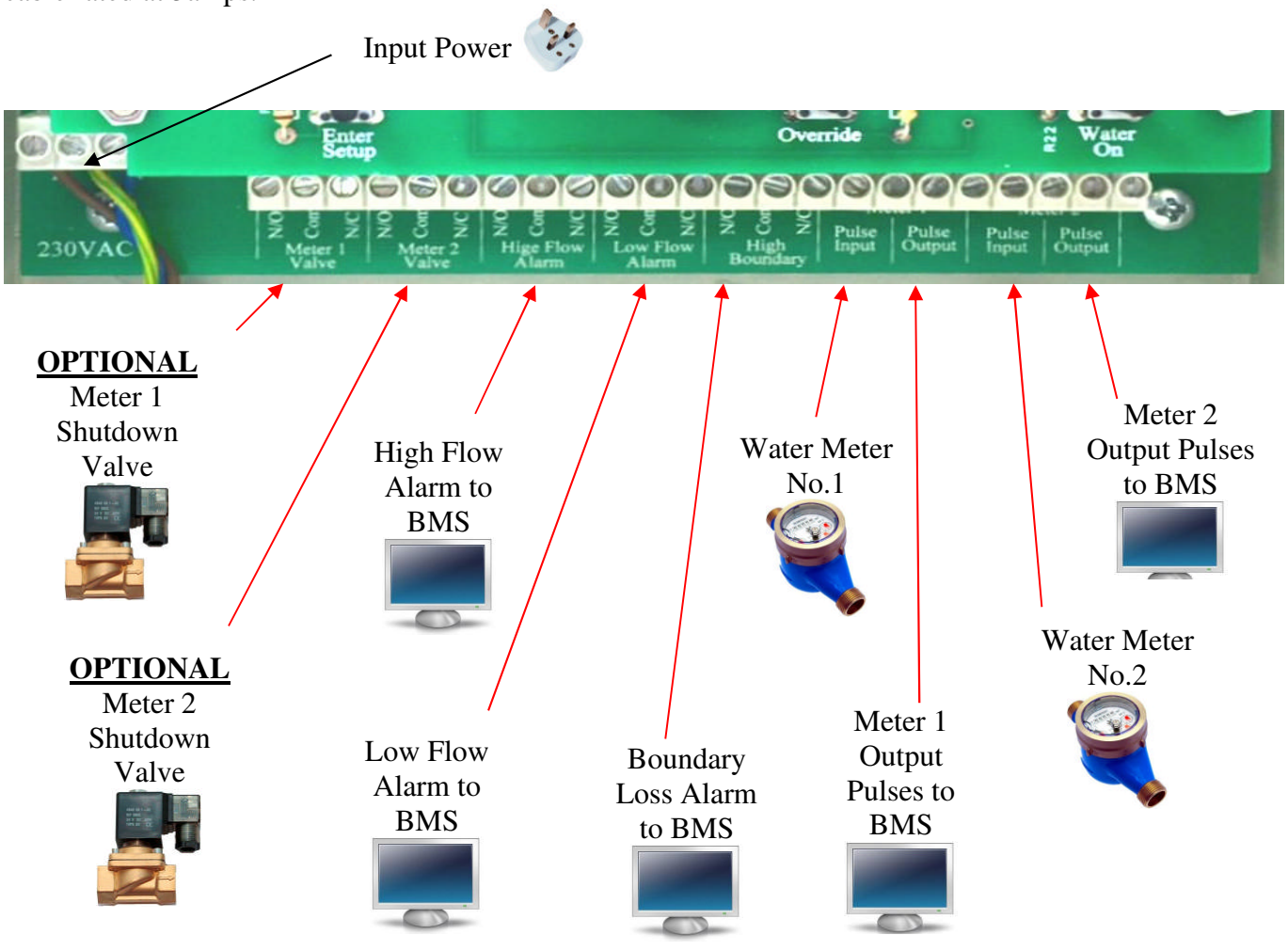
1) System Overview

Fully programmable to suit users requirements, this unit is connected to the two water meters installed to the main incoming water supply pipework. Meter 1 is usually installed inside the building, meter 2 usually outside, where the water services enter the property. Optional shut off valves for meter 1 and/or meter 2 can be provided, to turn off the water supply in the event of an alarm being raised. Both meters must be fitted with a device that will give a pulse output proportional to the flow rate and can be either 1, 10 or 100 litres per pulse. The system monitors the flow of water through the building's internal and external meters and raises a "High Flow", "Low Flow" or "Boundary" alarm if the water flow exceeds the unit's alarm settings. By setting realistic flows and time periods, any increase above the user defined settings will be detected and can be dealt with, thereby saving water and limiting damage caused by a major leak.

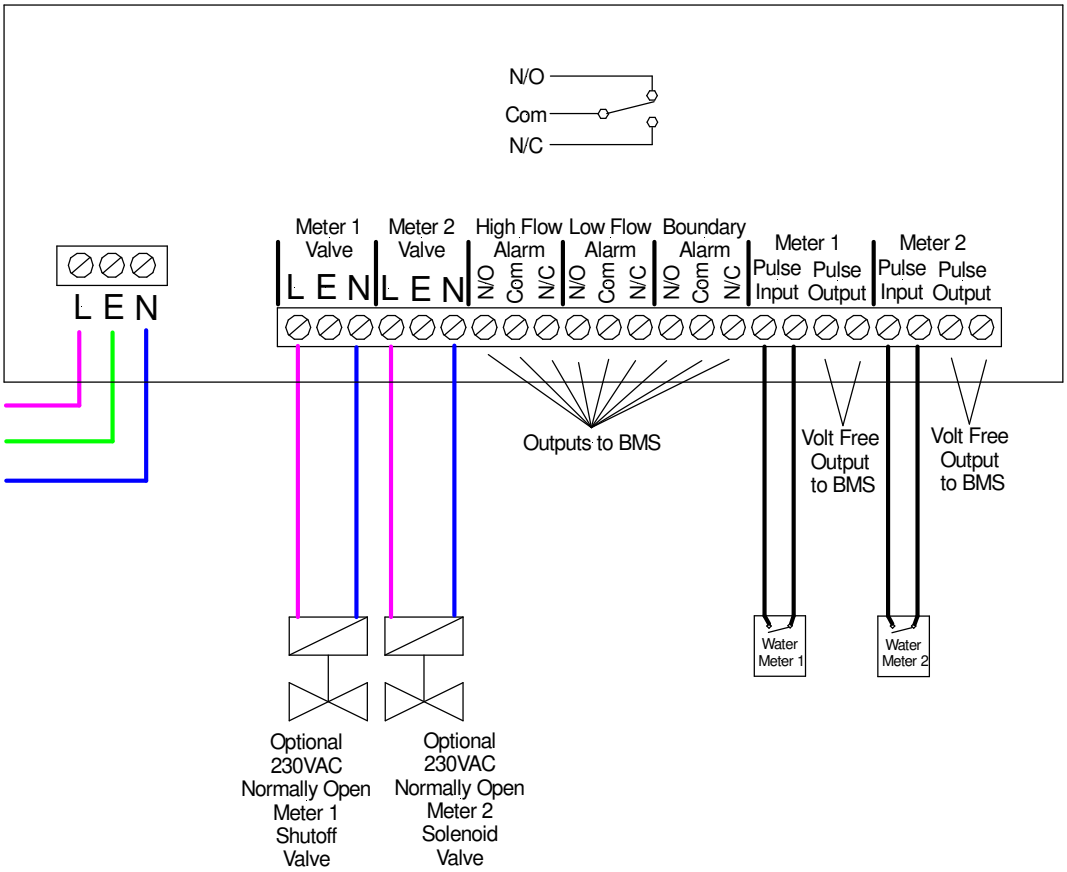
2) Installation

THIS EQUIPMENT SHOULD ONLY BE CONNECTED AND WORKED ON BY A QUALIFIED ELECTRICIAN.

To mount the unit to a wall, first remove the front cover to expose the internal equipment. In the bottom and top corners of the housing are fixing points. Cable access into the box should be via cable glands which can be positioned anywhere around the enclosure or on the inside for back entry. Care should be taken not to damage the internal equipment when drilling the enclosure. A 230VAC power supply should be run from a fused spur to the unit's internal terminal block marked "L", "E" & "N". The fuse within the fused spur should be rated at 5 Amps. The BLDA unit is linked to the pulsed water meters by a 1mm² conductor 2 core screened cable up to a maximum 400 meters away. Pulsed water meters usually have BSP thread connections up to 50mm, above 50mm PN16 flanged connections are used. If shutoff valves are required, they should be installed just after the water meter(s) and cabled in a flexible 3 core 230VAC cable rated at 3amps.



3) Wiring Detail



4) Water Shutoff Valves

If required, appropriately sized 230VAC Normally Open water shutoff valves can be provided to stop the water flow at the intake to the building or outside the building at the utilities source. Valves should be of the motorised ball valve type to allow maximum flow of water when open.

5) Relay Outputs

Volt free contacts have been provided for the following and can be found within the unit on the main PCB.

a) High Flow alarm, contacts rated at 30VDC 1A
b) Low Flow alarm, contacts rated at 30VDC 1A
c) High Boundary alarm, contacts rated at 30VDC 1A
d) Meter 1 output proportional pulses for onward indication
e) Meter 2 output proportional pulses for onward indication

6) Remote Repeat Alarm

To connect this item to the system, using a low voltage 3 core cable, connect in the following way.

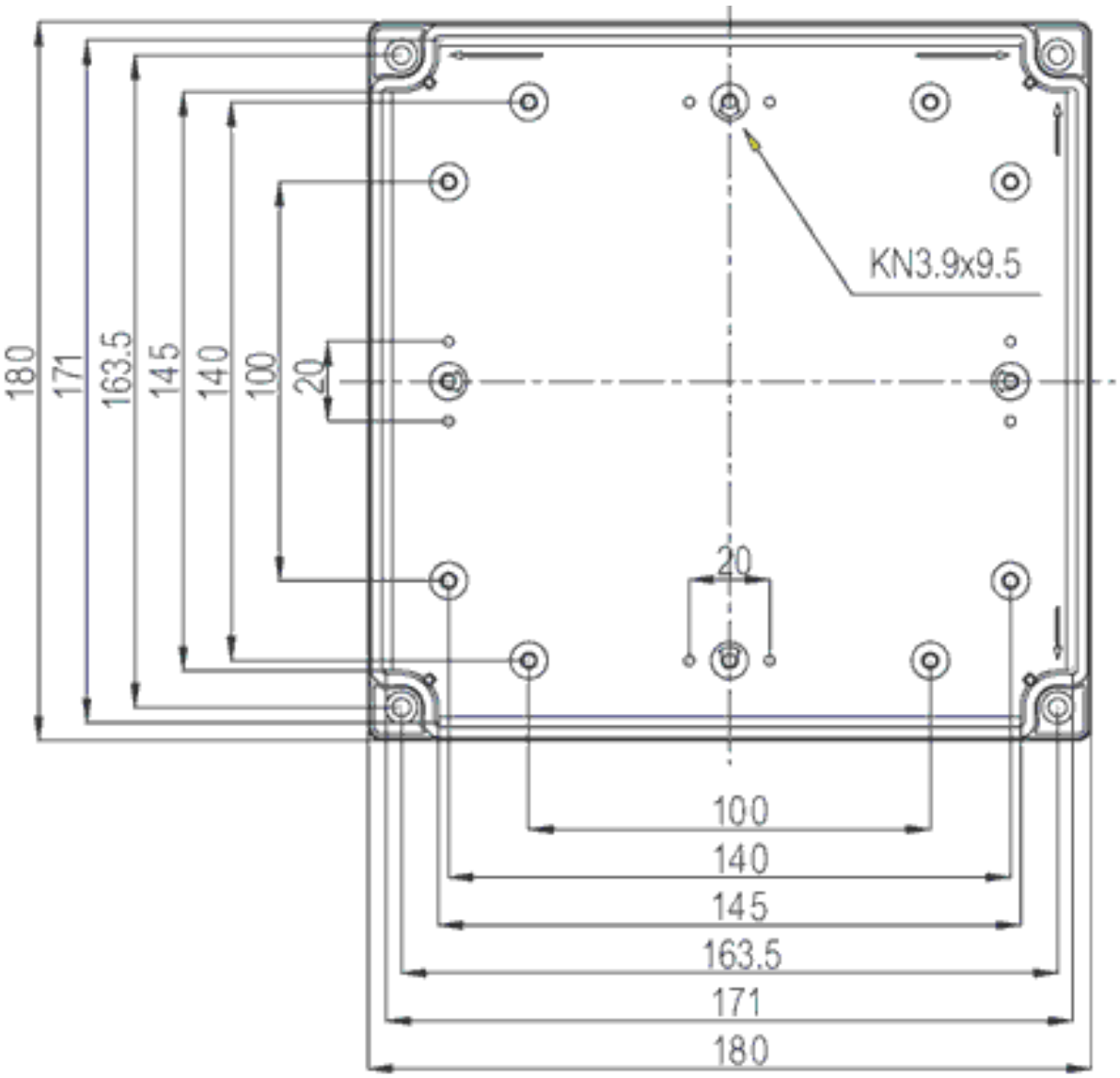
Wire this terminal block
to all outstations in Belden 9502 cable

BLDA Unit		Remote Alarm
+V	to	+V (wire 1)
0V	to	0V (wire 2)
Sig	to	Sig (wire 3)

This item has an audible warning device and “Mute” push button. Once muted, the alarm will reset once the alarm has been removed. Please note; this unit will NOT activate for system faults.

7) Housing Size

BLDA-1 & 2



8) Push Button Description

"Change Value" Used ONLY in "Setup" mode to change the current displayed value

"View Screens" Use to change the current displayed screen

"Move Curser" Used ONLY in "Setup" mode to move the curser to the next digit

"Next Screen" Used ONLY in "Setup" mode to move to the next setup screen if NO change is required

"Mute" Use to silence the audible warning

"OK" Press the "OK" button and hold whilst you also press the "Mute" button to reset an alarm

"OK" Use to accept changed parameters

"Setup" Press for 5 seconds to enter the setup mode

"Override" Use to stop the system alarming and turning off the water for a period of time as set in the "Setup" routine

"Water On" Press the "Mute" button first then "water On to reset an alarm and override a valve shutdown

9) Display Screens

Main screen; unless in "setup" mode, the system will revert back to this screen after two and a half minutes.

Date and Time

Current Flow Watch Type: Low or High

High Flow "Normal" or in "Alarm"

High Flow "Normal" or in "Alarm"

Press the "View Screen" button once. The following window will appear:

Total Meter 1 (internal) Reading

Max/Min recorded High Flow reading

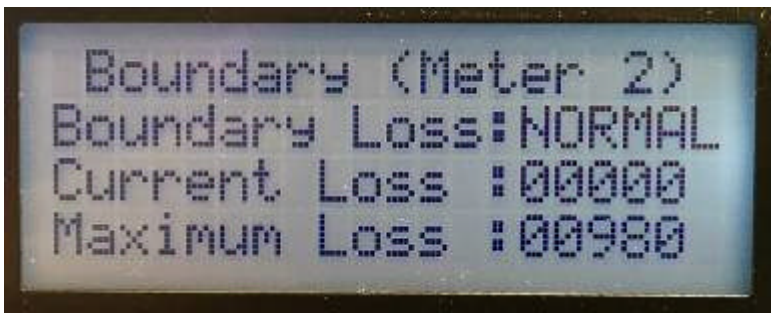
Max/Min recorded Low Flow reading

Press the "View Screen" button again and the following window will appear:

Last hour's reading

Maximum recorded flow per hour

Press the "View Screen" button again and the following window will appear:

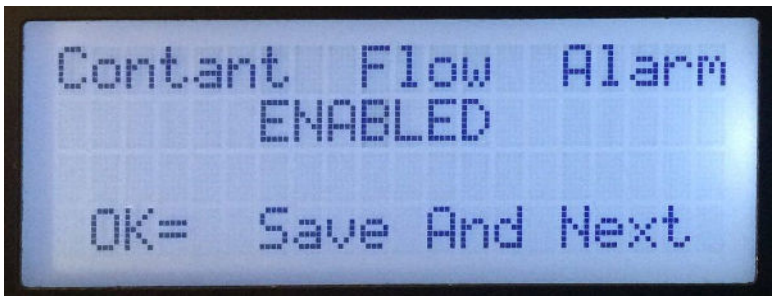


Boundary Loss "NORMAL" or "ALARM"

Current Boundary Loss if any

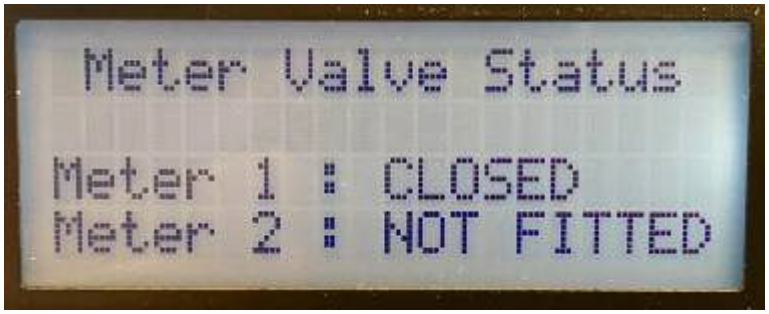
Maximum recorded boundary Loss

Press the “View Screen” button again and the following window will appear:



Constant flow alarm ENABLED (On) or DISABLED (Off). If enabled, the system looks for, and alarms, if a new break in the water flow is detected.

Press the “View Screen” button again and the following window will appear:



Shutdown Valve “OPEN”, “CLOSED” or “NOT FITTED”

Press the “View Screen” button again and the following window will appear:

High Flow Times for day are 10:00 to 10:30 so Low flow will be from 10:31 to 09:59

Press the “View Screen” button once more to go back to the beginning.

10) Right Hand Side Push Button Functions

Push Button		Function
View		Change the display window as outlined above
Mute		Cancel the audible warning
Override		Start a No alarm No shutdown period as set in Setups
OK		Used at the same time as other push buttons for various functions
Water On		Used at the same time as other push buttons for various functions
OK and Mute		Will reset all existing alarms but NOT open the shutoff valve
OK and Water On		Will open the shutdown valves if fitted

11) Setting up the System Overview

IMPORTANT

The Leak Detection System will not work correctly until it has been setup and commissioned as detailed below. You will need to nominate a person responsible for the operation and understanding of the system. This must include how to setup the system, keeping records and being aware of what the alarms mean and their implications. Water consumption is unique for each installation; therefore, it is important to establish Low and High flow periods i.e., when the building is occupied or unoccupied. An initial investigation will be required to establish the weekly / daily patterns of water consumption. Further investigation should be undertaken at regular intervals to understand the overall usage, including fluctuations such as filling water tanks.

Setting up the system will require:

1) Set or confirm the Pulse/L ratio for Meter 1 & Meter 2

2) Set or confirm the approximate high and low water usage and timeout period

3) Set or confirm the approximate boundary loss and timeout period

4) Set or confirm the Time and Date

5) Set or confirm the alarm/shutdown override period

6) Set or confirm if any water shutoff valves are fitted

7) Set the High Flow times between Monday to Sunday, this is the occupied (day time) period

Setup procedure 1

If the setup parameters as detailed above are known, enter them using the following procedures. Once the system has been initially setup, let the system run for at least a week ignoring any generated alarms. At the end of this period, re-enter setup and adjust the maximum High & Low flow water volume and time periods, based on the readings from the maximum Litres displayed on screen two and three.

Setup procedure 2

If setup parameters are not known, enter setup and set both the high and low flow timers *(see 13 below)* to 00:00. This will stop the unit from alarming and shutting off the water supply. Run for at least a week, at the end of this period, re-enter setup and adjust the maximum High & Low flow water volume and time periods based on the readings from the maximum Litres displayed on screen two and three.

To Start setting up the system or changing a pre-set parameter, press the “Setup” push button for 5 seconds, the display will change to the pulse rate setup page.

How to enter the Setup Routine

Please see overleaf

How to enter the Setup Routine

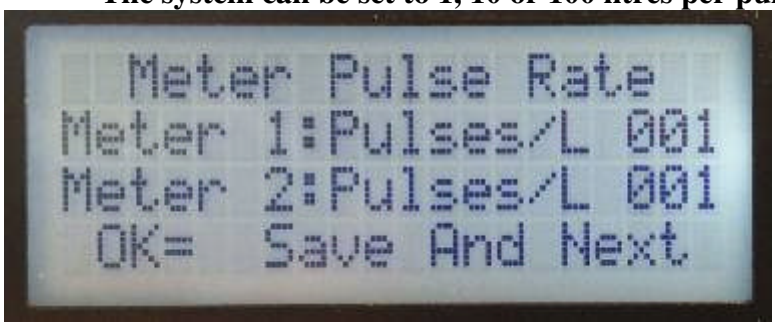
When you press the "setup" push button the internal sounder will rapidly pulse. This is to help stop persons from inadvertently altering the setup parameters. You MUST keep the "Setup" button pressed ignoring the pulsing horn until the display changes to the screen shown in (12) below at which time the pulsing horn will stop.

Please note;
YOU WILL ONLY HAVE 5 MINUTES TO CHANGE THE SETINGS BEFORE THE SYSTEM WILL EXIT SETUP WITHOUT SAVING ANY CHANGES.

Push Button		Function
Next Screen		Each press of this button will move to the next parameter setup screen without any changes to the current screen. To exit Setup, keep pressing this button until one of the screens in section 9 appears.
Change Value		With the curser flashing over a parameter or digit, press this button to change the parameter or digit to the next value. If you make a mistake, keep pressing the button until the correct value is displayed.
Move Cursor		Use this button to move the curser to the next digit in a parameter. If you keep pressing this button it will rotate the flashing cursor through all the digits back to the most significant digit.
OK		If you want to move to a specific parameter on a page you will need to keep pressing this button until the cursor is flashing over your selection. Then use the "Change Value" and "Move Cursor" buttons. You MUST press this button to save the changes made.

12) Setting Up Meter 1 and Meter 2 Pulses per Litre

Note; If the "OK" button is not pressed, the new setting will NOT be saved.
The system can be set to 1, 10 or 100 litres per pulse



Set to 1, 10 or 100 Litres per pulse

Set to 1, 10 or 100 Litre per pulse

Note; Meter 2 refers to the boundary meter usually sited outside the building.

Actions required;

a) To move on to the *High & Low flow Screen* below, without making any changes to the pulse rate press the "Next Screen" button.
b) Press the "OK" button to accept Meter 1's litre per pulse or;
c) Press the "Change Value" button, each press will change Meter 1 litres per pulse to 001, or 010 or 100 then back to 001 on the next press. When the correct Meter 1 litre per pulse is displayed press the "OK" button to accept, this will save the change and move the cursor to the most significant Meter 2 pulses per litre digit.
d) Repeat steps a, b and c above to move on or adjust Meter 2 pulse rate.

13) Setting Up High and Low Maximum Allowable Litres and Time Period

Note; If the "OK" button is not pressed, the new setting will NOT be saved.
The maximum litres can be set to between 00000 and 99999 litres, the time setting can be set between 00:00 to 24:00 hours

High Flow set for 2000L for 30 Mins

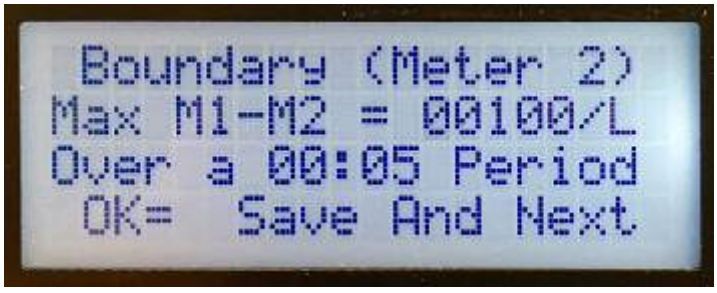
The above screen shows that the High Flow alarm is set for 2000 litres, for a period of 30 minutes and the Low Flow alarm is for 50 litres, for a period of 10 minutes.

Actions required;

a) To move on to the *Boundary Screen* below, without making any changes to the High or Low Flow maximum litres or alarm timer press the "Next Screen" button.
b) Press the "OK" button to accept High Flow litres and move onto the High Flow alarm timer or;
c) Press the "Change Value" button, each press will change the significant digits between 0 and 9 and back again to 0. When the correct number is displayed press the "Move Cursor" to move to the next digit or the "OK" button to save the new setting and move on to the High Flow timeout period timer. Repeated presses of the "Move Cursor" button, causes the cursor to rotate through the numbers, back to the most significant digit of the number.
d) With the cursor flashing on the most significant hours digit, repeat steps a, b and c above to move to the next screen, adjust the High Flow timer or move on to the Low Flow maximum litres.
e) With the cursor flashing on the most significant Low Flow maximum litres digit, repeat steps a, b and c above to move to the next screen, adjust the Low Flow maximum litres or move on to the Low Flow timer.
f) With the cursor flashing on the most significant hours digit, repeat steps a, b and c above to move to the next screen or adjust the Low Flow timer.

14) Setting up the Boundary Loss

Note; If the "OK" button is not pressed, the new setting will NOT be saved.
The maximum litres can be set to between 00000 and 99999 litres, the time setting can be set between 00:00 to 24:00 hours



Max flow difference is 100 litres

For a 5 minute period

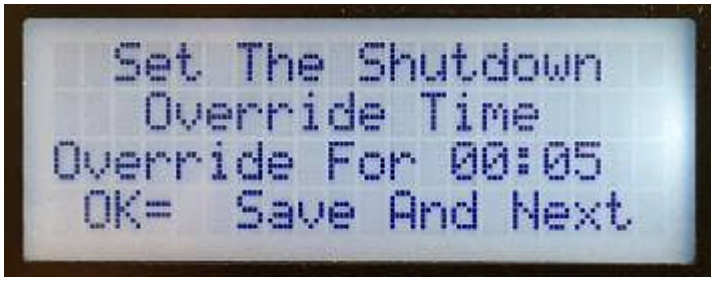
The above screen shows that the maximum boundary loss alarm is set to 100 litres for a period of 5 minutes.

Actions required;

a) To move on to the *Shutdown Override Screen* below, without making any changes to the Boundary alarm set points press the "Next Screen" button.
b) Press the "OK" button to accept Max M1-M2 litres and move onto the alarm timer or;
c) Press the "Change Value" button, each press will change the most significant digits between 0 and 9 and back to 0 again. When the correct number is displayed press the "Move Cursor" to move to the next digit or the "OK" button to save the new setting and move on to the alarm timeout period timer. By repeated presses of the "Move Cursor" button, the cursor will rotate through the number back to the most significant digit of the number.
d) With the cursor flashing on the most significant hours digit, repeat steps a, b and c above to move to the next screen or adjust the alarm timer.

15) Set the Alarm and Shutdown Override timer

Note; If the "OK" button is not pressed, the new setting will NOT be saved. The time setting can be set between 00:00 to 24:00 hours



Override Time Period

This is used to set the period of time that the system will ignore what the water flow is. It can be invoked by pressing the "Override" button, then the "OK" button.

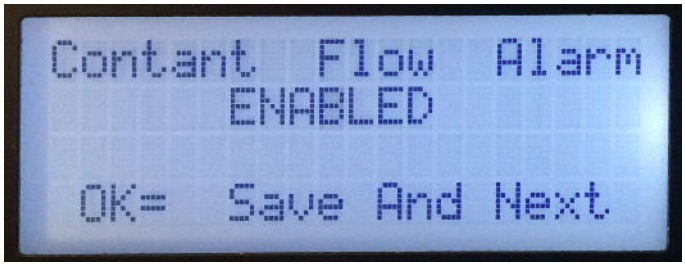
Actions required;

a) To move on to the C*onstant Flow Alarm Screen* below, without making any changes, press the "Next Screen" button.

b) Press the "Change Value" button, each press will change the digits between 0 and its maximum and back to 0 again. When the correct number is displayed press the "Move Cursor" to move to the next digit or the "OK" button to save the new setting and move to the *Set Valve Presence Screen* below. By repeated presses of the "Move Cursor" button, the cursor will rotate through all of the time digits until it is back to the most significant hour digit. If a mistake is made, keep pressing the "Move Cursor" button until you reach the required digit again.

16) Setup Constant Flow Alarm

Note; If the "OK" button is not pressed, the new setting will NOT be saved



Turn on or off the constant flow

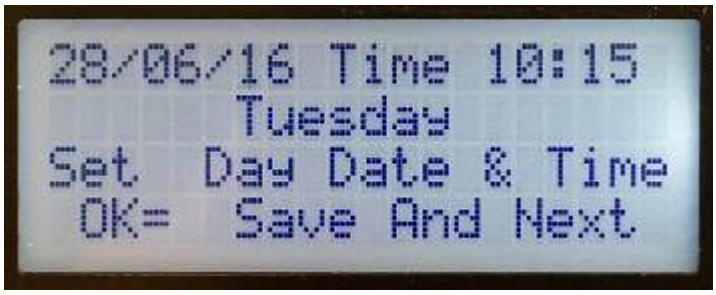
This is used to turn on or off the constant flow alarm. If water is found to never stop flowing, the alarm will be activated. By disabling it, no alarm will occur. The factory setting is "Disabled"

Actions required;

a) To move on to the *Clock Setup Screen* below, without making any changes press the "Next Screen" button.
b) Press the "Change Value" button to select "enabled" (On) or "disabled" (Off)
c) Press the "OK" button to save the new setting and move on to the clock setup

17) Setting up the Clock

Note; The time format only allows for a maximum 23.59 hours and NOT 24:00
If the "OK" button is not pressed, the new setting will NOT be saved.



Day, Month, Year and 24 hour time

Day of the week

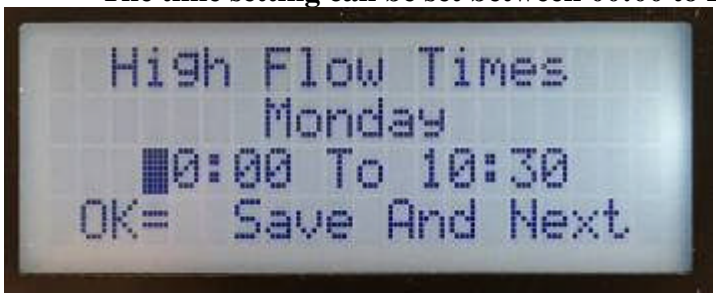
You will only be allowed to enter valid day, date and times. If you try to exceed the normal clock format the display will automatically display the minimum for that parameter i.e., if the display shows the time as 23:00 with the cursor flashing over the "2", one more press on the "Change Value" button will result in the display showing 20:00.

Actions required;

a) To move on to the *High flow Times Screen* below, without making any changes to the clock press the "Next Screen" button.
b) Press the "OK" button to accept the displayed Day, Month, Year, Time and move to the day of the week setting.
c) Press the "Change Value" button, each press will change the digits between 0 and its maximum and back to 0 again. When the correct number is displayed press the "Move Cursor" to move to the next digit or the "OK" button to save the new setting and move on to the Day of the week setting. By repeated presses of the "Move Cursor" button, the cursor will rotate through all of the day, month, year and time digits until its back to the most significant day digit. If a mistake is made, keep pressing the "Move Cursor" button until over the required digit again.
d) With the cursor flashing on the day of the week, press the "Change Value" button until the correct day is displayed. Once correct, press the "OK" button to move to the next setup screen.

18) Set the High Flow Time Periods for the Day of the Week

Note; If the "OK" button is not pressed, the new setting will NOT be saved.
The time setting can be set between 00:00 to 24:00 hours



Start to Stop Times

You will need to set the high flow period for each day of the week starting at Monday. This time period would normally be when the building is occupied i.e. an office block could be 07:00 to 18:30 Monday to Friday, 07:00 to 12:00 Saturday and 00:00 to 00:00 for Sunday, unoccupied on Sunday.

Actions required;

a) To move on to the next *High Flow Screen*, without making any changes press the "Next Screen" button.
b) Press the "OK" button to accept and save the displayed start time and move to the off time or;
c) Press the "Change Value" button, each press will change the digits between 0 and its maximum and back to 0 again. When the correct number is displayed press the "Move Cursor" to move to the next digit or the "OK" button to save the new start time and move on to the stop time. Repeated presses of the "Move Cursor" button, will cause the cursor to rotate through both hour digits until its back to the most significant digit. If a mistake is made, keep pressing the "Move Cursor" button until you reach the required digit again.
d) Repeat steps a and c above, to adjust the stop time.

With the next *High Low Times Screen* on display, repeat steps a) through d) for all the days of the week. You MUST press "OK" or "Next Screen" after setting up Sundays High Flow period to finish setting up the system.

19) Useful Information

a) The system will NOT alarm or turn off a shutdown valve if the high, low flow time period are set to 00:00 i.e. High Flow set to 00245 for 00:00 time. This also applies to the Boundary alarm on the BLDA-2 system.

b) The display will automatically change to the first screen shown in item 9 above, after 5 minutes.

c) The system will automatically exit setup after 5 minutes.

20) Water Meters

MJ- SDC

Multi-jet water meter with dry dial

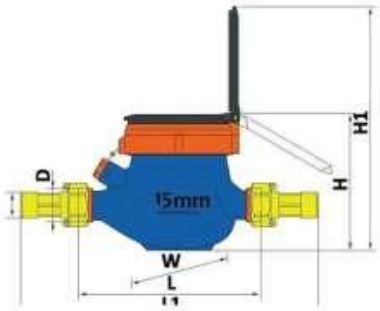
CE EN 14154

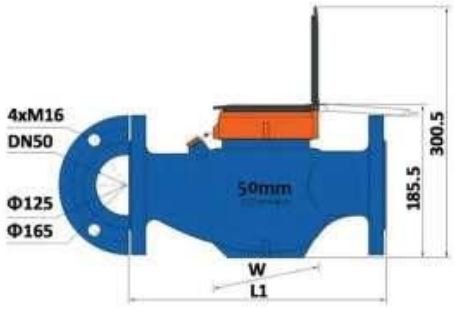
The **VuAqua MJ-SDC** is a multi-jet mechanical water meter with dry type dial counter suitable for a variety of metering applications including general purpose, tenant billing and commercial metering tasks available in sizes DN15 (1/2") to DN50 (2").

Key Features

- Multi-jet impellar meter type
- Compact design for most metering applications
- Approved: EN14154+A1+A2,OIML R-49: 2006(E)
- Dry dial (frost resistant)
- Meter body material is epoxy coated brass
- Drinking water approved : WRAS
- Shielded from Magnetic interference
- BSP fittings supplied (nuts, tails & washers)
- Maximum pressure of 16 bar
- Maximum temperature of 30°C (T30)
- Pulse Output option: Vmax=24AC/DC, Imax=0.01A
- Tamper evident wire lock & seal, Inlet NRV option

Dimensions





Size	DN15	DN20	DN25	DN32	DN40	DN50	DN50-flange
L	165	190	260	260	300	300	300
L1*	259	294	380	384	431	448	
D	G3/4B	G1B	G1-1/4B	G1-1/2B	G2B	G2-1/2B	
d	R1/2	R3/4	R1	R1-1/4	R1-1/2	R2	
H	107.5	107.5	117.5	117.5	141.5	177	185.5
H1	191	191	206.5	206.5	256.5	292	300.5
W	94	94	98	98	122	145	165

*L1= the total length with connection and the gasket without compression.

Additional length options available:

Size	DN15	DN20	DN25	DN32	DN40	DN50	DN50 Flange
L	110	160	160	160	200	280	280
	120		220	230	245		
	130		225				
	145						
	170						
	190						

Technical Data

Size	DN	DN15	DN20	DN25	DN32	DN40	DN50
R	Q3/Q1	R8o for Horizontal Installation					
Q4	m³/h	3.125	5	7.875	12.5	20	31.25
Q3	m³/h	2.5	4	6.3	10	16	25
Q2	l/h	50	8o	126	200	320	500
Q1	l/h	31.25	50	78.75	125	200	312.5
Max. Reading	m³	99999.9999					
Min. Reading	Litre	0.05					
Pressure Loss	ΔP	ΔP <63 at Q3					
Max. Pressure	Bar	16					
Max. Temperate	°C	30 (Max 50 Degreess is possible)					

21) Water Meter Installation

Before installing the water meter, make sure that the meter has been chosen correctly. Check that the nominal diameter, flow rate, working temperature and pressure are compatible with actual installation conditions.

1. It is recommended that a straight length of pipe the same diameter as the meter and equivalent in length to 10 times the meter diameter is fitted immediately prior to the meter inlet and 5 times the meter diameter after the meter.

2. Before installing the meter make sure that the two sections of cut pipe are positioned correctly and supported where necessary, clean them carefully (especially if the pipes are empty) and allow water to flow for some time using a section of pipe instead of the meter, to remove any scale/debris leftover from the disturbance to the pipe.

3. Install the meter in a place protected from frost if possible (insulate with lagging materials during the winter months) and locate in the lowest part of the pipe work in order to avoid accumulation of air within the measuring chamber.

4. Install the meter in a position where it can be easily read, but is not accessible for tampering. Locate the meter where it will be safe from disturbance and damage from passing objects.

5. Install the meter so that the water is flowing in the same direction as the arrow shown on the body and in the position recommended by the manufacturer, following any indications on the dial. For guaranteed performance according to ISO 4064, meters should be installed in a perfectly horizontal plain. Accuracy may be reduced if installed in a vertical orientation.

6. It is advisable to install isolation valves upstream and down stream of the meter, in order to make the maintenance or verification of the meter possible. The installation of an internal or external non-return valve is also recommended.

7. There should be no restriction of the pipe at the meter inlet, and flange joints where used, should not obstruct the flow of water into the meter body. Any regulation of the flow should be carried out on the outlet side of the meter.

IMPORTANT:
Before putting in to operation, it is necessary to purge the pipe and meter of air (for this operation it may be necessary to rotate the meter) Valves must be opened slowly so as not to allow any air present within the pipe work to damage the meter by over running it's internal measuring mechanism.

22) Commissioning

1) Visually check that all meters are wired back to the alarm unit both internally and at the boundary
2) Using the "VIEW" push button press until the following screen is shown and record all five counters for later.

3) Using the “VIEW” push button press until the following screen is shown and record both counters for later.

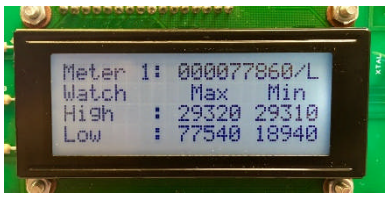
4) It would be useful to make sure that the unit is recording the pulses from the meter. Later in the process, we will check that the meters are working, but for now we need to simulate that the volt free contact within the meters are opening and closing. To do this you will need a short wire, paper clip or something that can short out two terminals. With the above window on display and using the wire, short out “Meter 2 Pulse input” terminals then remove the short, now note if the windows “Current Loss” incremented by one. If after trying a couple of times you have no success, disconnect one of the meter 2 wires and try again. It could be that the meter volt free contact is closed or you have a short in the cable. Once working, repeat a few times until you are convinced that all is working. If you removed the meter 2 wire, re-connect it.

5) Using the “VIEW” push button, press until the Meter 1 : 000000000/L appears and repeat item 4 above for “Meter 1 Pulse Input” terminals.

6) Do a factory reset by powering down the unit, pressing both the left-hand side “OK” and “Change Value” buttons together and powering up again with the buttons still pressed. You might find it easier to remove the lid first.

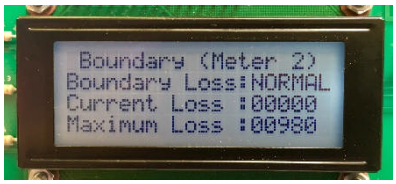
7) We now need to check that meter 1 is connected and working by getting the water to flow through the meters, turn on some taps and check the following;

7a) Press the “VIEW” button until the following is on display and check that the top 000000000/L counter increments. If it doesn’t meter 1 is not connected



8) We need to check that the boundary meter is working, for this we need to disconnect one of the meter wires connected inside the alarm unit to “Meter 1 Pulse Input” terminals, this will stop meter 1 working, allowing only Meter 2 pulses to be recorded. Note: If meter 1 is fitted, it will cancel meter 2’s count.

8a) Press the “VIEW” button until the following is on display and check that the “Current Loss” counter is incrementing. The unit might go into “Boundary” alarm, if it does press “Mute” check that the count has incremented before pressing the “Water On” button to cancel the alarm by pressing the “Water On” button.



9) Re-connect meter 1 and check that it starts incrementing again as outlined in 7 above.

With both meters working stop the flow of water by turning off the taps and carry out a second factory reset as described in 4 above to clear all counters.

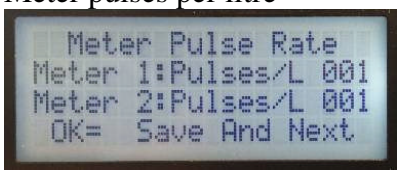
Setting Up the System

Having entered the setup routine, you will need to use one of three push buttons.
"Next Screen" will move to the next window without saving any changes you might have made,
"Move Curser" will move the curser to the next digit in the perimeter. If you overstep to the wrong digit, keep repeatedly pressing until the right digit is flashing.
"Change Value" will increment the number. If you overstep to the wrong digit, keep repeatedly pressing until the right digit is displayed.
"OK" will save the changes to only the perimeter you are on before moving to the next parameter or next window if you are on the last parameter on the screen. To skip over to the next parameter on screen i.e. need to only change LF :00020/L , press the "OK" button until the curser is flashing on the parameter you need to change.

Due to product updates, the following sequence of windows may present in a different order or have additional or missing screens. To familiarise yourself with the setup windows, we suggest that you first enter setup by pressing the "Enter Setup" push button until the beeping stops, then press and keep pressing the "Next Screen" button to motor through all the setup screens on your system.

We are now going to confirm or change the alarm setting for each unit. First press the "Enter Setup" push button until the beeping stops and the display changes to:

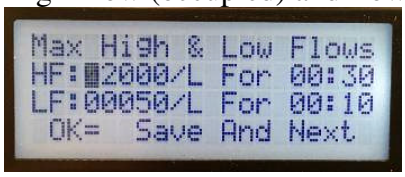
Meter pulses per litre



Your unit should look like this with 001 for both meters

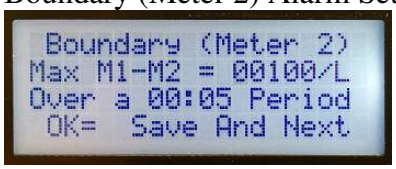
Now press the "Next Screen" push button the display should change to this, note the counter numbers in the window are for illustration only and yours should say HF: 00060/L For 00.10 and LF: 00020/L for 00:10.

High Flow (occupied) and Low Flow (unoccupied) Flow Alarm Setpoints



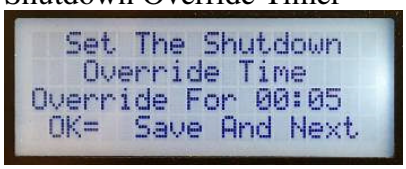
Using the "Move Curser" button, press until the flashing curser is over the 100's digit. Now press and if a mistake is made release and keep pressing the "Change Value" button until the reading shows 00100/L. Press "OK" to save and move to time period 00.10 setting. The display should show 00.10, if it does press "OK" again to move to the Low Flow settings, if not use the "Move Curser" and "Change Value" until 00.10 is displayed and then press "OK". With the curser flashing on the LF:00020/L reading set in the same way as described above until the display shows and LF: 00050/L for 00:10 and press "OK". The display should change to the following;

Boundary (Meter 2) Alarm Set-point



The above window should show Max M1-M2 = 00020/L over a 00.10 period. If it does, press "Next Screen" if not, change using the "Move Curser", "Change Value" and "OK" buttons. As described above, change the values, don't forget to press "OK" to save. Once "Next Screen" or the "OK" button have been pressed, the display should change to this;

Shutdown Override Timer



You don't have shutdown valves so press "Next Screen" to display the following;

Constant Flow Alarm

Set this to "DISABLED" by pressing the "Change Value" button, then press "OK" to save and move to the next screen;

Date, Day and Time

Set the date, time and day by using the "Move Curser", then press "OK" to save or move to the next parameter.

High Flow Alarm Periods for Monday

The above is the time period that the maximum amount of water will be used i.e. the occupied times. The display should show 07.00 To 19.30. Check or change the times by using the "Move Curser" and "OK" buttons to save or move to the next parameter or press "Next Screen" if the information was correct upon opening.

Once "Next Screen" or the "OK" button have been pressed, the display will show Tuesdays High Flow period, repeat for all days of the week.

23) Maintenance

The system should be fully tested atleast once a year for correct operation and if fitted, a check made to ensure that the shutoff valve operates correctly.
All cables should be inspected at the same time for signs of damage, dirt contamination or mis-placement.