CONTROLS AND DISPLAY

Upper display gives continual update of flow rate in selected units.

By pressing the [ ] key, the lower display steps through the following sequence:

- Forward flow total value.
- Reverse flow total value.
- Net flow total value.

Alm: Active alarms – Any alarms are displayed sequentially if more than one alarm is present. 'Alm Clr' is displayed when no alarms are present.

Vel: Flow Velocity
% of Flow Range.

Pressing the [ ] key resets the flow total displayed on the upper display, if parameter 'Tot Clr En' is enabled.

Pressing the [ ] key accesses the Login Parameter where it is necessary to enter a security code before any other parameters can be accessed – see SECURITY ACCESS.

MENU LAYOUT

SECURITY ACCESS

Two security code levels, 1 and 2, are available, and are each accessed with a five digit number.

User Code Level 1 default number is 10760.

Engineer Code Level 2 default number is 56360.

Parameters accessible by the two levels are shown above.

At the flashing cursor on the first digit of the Login code number, press either the [ ] or [ ] membrane switches to reach the required digit.

If an incorrect value is entered, access to subsequent programming pages is prevented and the display reverts to the Operating Page.

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PARAMETER CHANGES
When a parameter is selected, which holds one or more variable units e.g. ‘Flow Unit’ parameter which can be Litres, Cubic meters, Gallons etc., proceed as follows to change the units; (Flow Ring) selected.

FLOW MEASUREMENT
PARAMETER DESCRIPTION
Flow Ring Enter full scale (100%) flow range (Upper Range Value) in selected flow units.
Flow Unit Select units as required.
Ltr (Litres) m³ (Cubic Meters)
mgal (Imp Gals)
Ugal (U.S. Gals)
ft³ (Cubic Feet)
Flow Multi Select multiplier as required.
0 x (1) h (100)
FI (10000)
Flow Time Select time units as required.
s (Second)
Min (Minute)
Hr (Hour)
Dy (Day)
Wk (Week)
Flow Rspns Nominal Time Constant for output. Enter Display Setting from table below for time constant required.
3 5 7 10 15 20 30 60
Flow % Present flow as % of range. Enter inactive state of input contact:
Inpt Idle
Flow Probe Ins Probe Insertion Factor.
Flow Probe Prof Probe Profile Factor.
Flow Cutoff Flow velocity in mm/sec. below which flow set to 0.

ANALOG OUTPUT
PARAMETER DESCRIPTION
Anlg Fsd Enter output current in mA for 100% flow (0 ≤ FSD ≤ 21).
Anlg Zero Enter output current in mA for 0% flow (0 ≤ ZERO ≤ 21).
Anlg mA Present output current (mA)
Anlg Dir Fwd Output responds to forward flow if set to "1".
Anlg Dir Rev Output responds to reverse flow if set to "1".
Anlg No2 Full scale flow range for 2nd analog range, as % of main range.
Anlg No1 Idle Normal flow velocity (uncorrected for conductivity).
Anlg No1 Fault Alarm occurs for Pulse Output.
Anlg No1 Fwd Alarm occurs for forward flow.
Anlg No1 Rev Alarm occurs for reverse flow.
Anlg No1 Cutoff Alarm occurs for Flow Cutoff.
Anlg No1 Mtsnsr Alarm occurs for empty sensor.
Anlg No1 Hi Alarm occurs for Flow > ‘Alm Trip Hi’. Alarm occurs for Pulse Output over range.
Anlg No1 Lo Alarm occurs for Flow < ‘Alm Trip Lo’. Alarm occurs for Pulse Output over range.
Anlg No1 Anlg Alarm occurs for Analog Output over range.
Anlg No1 Pls Enter required output pulses per flow volume unit.
Alarm No1 En 0 = Alarm output disabled (set to idle state).
Alm No1 Fault 0 = Alarm output enabled. Alarm occurs for System fault.
Alm No1 Fwd 0 = Alarm output disabled (set to idle state).
Alm No1 Rev 0 = Alarm output enabled. Alarm occurs for Flow Cutoff.
Alm No1 Cutoff 0 = Alarm occurs for Forward flow.
Alm No1 Mtsnsr 0 = Alarm occurs for empty sensor.
Alm No1 Hi 0 = Alarm occurs for Flow > ‘Alm Trip Hi’. Alarm occurs for Pulse Output over range.
Alm No1 Lo 0 = Alarm occurs for Pulse Output over range.
Alm No1 Anlg 0 = Alarm occurs for Analog Output over range.
Alm No1 Pls Enter required output pulses per flow volume unit.

ALARM (CONT'D.)
PARAMETER DESCRIPTION
Alm No2 Idlte Normal flow velocity (uncorrected for conductivity).
Alm No2 Cutoff Alarm occurs for Flow Cutoff.
Alm No2 Mtsnsr Alarm occurs for empty sensor.
Alm No2 Hi Alarm occurs for Flow > ‘Alm Trip Hi’.
Alm No2 Lo Alarm occurs for Flow < ‘Alm Trip Lo’.
Alm No2 Anlg Alarm occurs for Analog Output over range.
Alm No2 Pls Enter required output pulses per flow volume unit.

TEST MODE
PARAMETER DESCRIPTION
Test Mode Set to ‘1’ if available.
Test Flow Displays present flowrate. If in ‘Test Mode’, any value may be entered manually.
Test % Flow as a percentage
Test Hz Output Frequency
Test mA Output Current
Test Vol Flow Velocity in sensor
Test Alm Shows present active alarms sequentially. ('Clr' indicates no alarms are active).
Test Tvs Live flow velocity (uncorrected for sensor calibration).

DISPLAY RESOLUTION
PARAMETER DESCRIPTION
Disp Res Enter number of decimal places required on flow display (0 to 5).
Disp Mode Serial Communication display mode (Read Only) – attempts to edit this parameter result in display of ‘Keypad Version No.’ with eventual return to normal operation.

SECURITY PASSWORD
Caution. Access is NOT possible without the correct password. Lost passwords can ONLY be reset by the Service Engineer.

PARAMETER DESCRIPTION
Login Key 1 Set Level 1 security password.
Login Key 2 Set Level 2 security password.

# The maximum which can be entered must not exceed 21000. The value entered may be displayed with a small error in the decimal digits e.g. 1.900 may be displayed as 1.899. This is a display characteristic and the value 1.900 will be used by the MagMaster.
§ Select both parameters for bidirectional operation (e.g. when dual current output is fitted). If both are zero, then I 0 % is always 0 %. On performing a Rapid Reset/Escape to return to ‘Operation level’, ‘Test Mode’ is automatically cancelled.
¶ If the sensor is empty or disconnected, the alarms ‘Mtsnsr’ and ‘Col’ will be displayed as appropriate.