

## Using the UniMux in Digital mode, (or a Digital In unit)

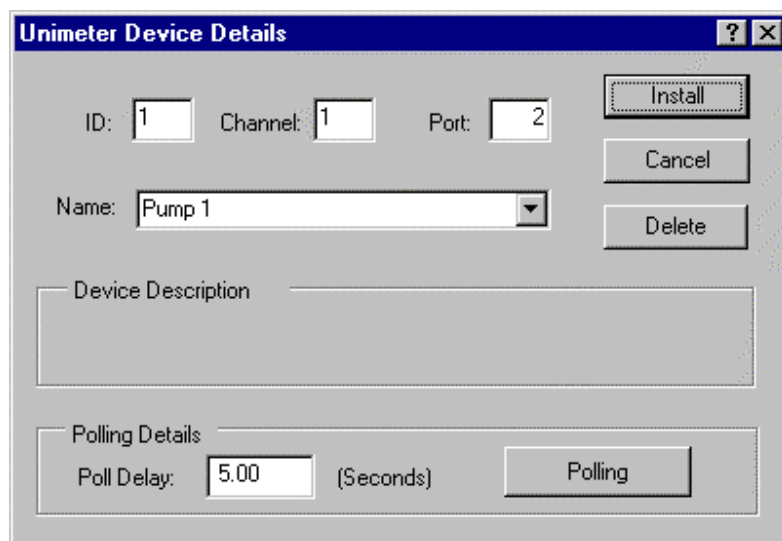
The UniMux or UniMux XQL can be set up in digital mode. In this mode the Mux has 16 inputs (channels 1 to 16) which have either 0V (Off) or +5Vdc (On) signals. Please read the UniMux XQL manual for connections. Note that the inputs must be 0V or +5Vdc, not floating (2.2k Ohm Pull Down resistors can be used).

The Digital IN Unit accepts 8 90-260V AC/DC inputs, which UniLink represents as 8 separate channels. See the Unimeter manual on pages 149 and 360.

Firstly set up the UniMux using UniTools to 16 Channel Digital mode (or Digi In to Function 149).

With the UniMux (Digi In) still connected to the PC, run UniLink and set it up to match the UniMux (Digi In).

1. Run UniLink.exe (Make sure Comms is set up correctly: Setup | Comms)
2. Click on Unimeter Icon
3. Set the ID, Channel 1, and Comms Port number
4. Type in the Name of the channel (eg: "Pump 1")
5. Click 'Install'



6. UniLink will install the other 15 (7) channels automatically with names like "UniMux 1 Ch 2" etc. To change these names,
  - Click the Unimeter Icon
  - Select the name of the channel to change by clicking the down arrow on the names field.
  - Type over this name with the new name
  - Click Install

Name	Port	ID	CH	Ver...	Type	Status	Reading
Pump 1	2	1	1	8.06	UniMux, in Digital	No Response	0.00
UNI_MUX 1 Ch 2	2	1	2	0.00	UniMux	On Line	0.00
UNI_MUX 1 Ch 3	2	1	3	0.00	UniMux	On Line	0.00
UNI_MUX 1 Ch 4	2	1	4	0.00	UniMux	On Line	0.00
UNI_MUX 1 Ch 5	2	1	5	0.00	UniMux	On Line	0.00
UNI_MUX 1 Ch 6	2	1	6	0.00	UniMux	On Line	0.00
UNI_MUX 1 Ch 7	2	1	7	0.00	UniMux	On Line	0.00
UNI_MUX 1 Ch 8	2	1	8	0.00	UniMux	On Line	0.00
UNI_MUX 1 Ch 9	2	1	9	0.00	UniMux	On Line	0.00
UNI_MUX 1 Ch 10	2	1	10	0.00	UniMux	On Line	0.00
UNI_MUX 1 Ch 11	2	1	11	0.00	UniMux	On Line	0.00
UNI_MUX 1 Ch 12	2	1	12	0.00	UniMux	On Line	0.00
UNI_MUX 1 Ch 13	2	1	13	0.00	UniMux	On Line	0.00
UNI_MUX 1 Ch 14	2	1	14	0.00	UniMux	On Line	0.00
UNI_MUX 1 Ch 15	2	1	15	0.00	UniMux	On Line	0.00
UNI_MUX 1 Ch 16	2	1	16	0.00	UniMux	On Line	0.00

Fig 1: UniMux

Name	Port	ID	CH	Ver...	Type	Status	Reading
Pump 1	2	2	1	0.00	Digital	No Response	0.00
Pump 2	2	2	2	0.00	Digital	No Response	0.00
Pump 3	2	2	3	0.00	Digital	No Response	0.00
DIGI Out Ch 4	2	2	4	0.00	Digital	No Response	0.00
DIGI Out Ch 5	2	2	5	0.00	Digital	No Response	0.00
DIGI Out Ch 6	2	2	6	0.00	Digital	No Response	0.00
DIGI Out Ch 7	2	2	7	0.00	Digital	No Response	0.00
DIGI Out Ch 8	2	2	8	0.00	Digital	No Response	0.00
Temp 1	2	3	1	0.00	Digital	No Response	0.00
DIGI In Ch 2	2	3	2	0.00	Digital	No Response	0.00
DIGI In Ch 3	2	3	3	0.00	Digital	No Response	0.00
DIGI In Ch 4	2	3	4	0.00	Digital	No Response	0.00
DIGI In Ch 5	2	3	5	0.00	Digital	No Response	0.00
DIGI In Ch 6	2	3	6	0.00	Digital	No Response	0.00
DIGI In Ch 7	2	3	7	0.00	Digital	No Response	0.00
DIGI In Ch 8	2	3	8	0.00	Digital	No Response	0.00

Fig 2: Digi In & Out

## Installing the channels into UniLink SCADA

1. Run the Microsoft Access® database.
2. Install a new 'Text Box' (Or new Form if this is a new database). (Remember the "Wizard" button must be depressed to bring up the UniLink Wizard).
3. Select the UniMux (Digi In) channel to install
4. On the 'Alarm Points' page, type in 1 for the alarm point, and select 'Change background Colour of reading'. (Use Alarm Point 1 for a Red background colour on an active alarm, or Alarm Point 2 for a green colour – these can be changed in the 'UniDetails' table).

**UniLink Wizard**

### Alarm Points

You can Use the Unimeter's Readings to Trigger Alarms.

**Alarm Point No 1:** Alarm Value:   Inverted  
 Action:  Change Background Colour of Reading  
 Alarm Light  
 Run Macro (Advanced Users Only)

**Alarm Point No 2:** Alarm Value:   Inverted  
 Action:  Change Background Colour of Reading  
 Alarm Light  
 Run Macro (Advanced Users Only)

Cancel < Back Next > Finish

5. In the subform where you placed the reading text box, change the text box properties to 'Decimal Places = 0' (Forms | Design – Highlight the text box by temporarily moving the hidden control button, click on the text box & click 'Properties').
6. Repeat for any other channels.

**Microsoft Access - [Sub1 : Form]**

Pump1

Detail

Pump:1 Unbound

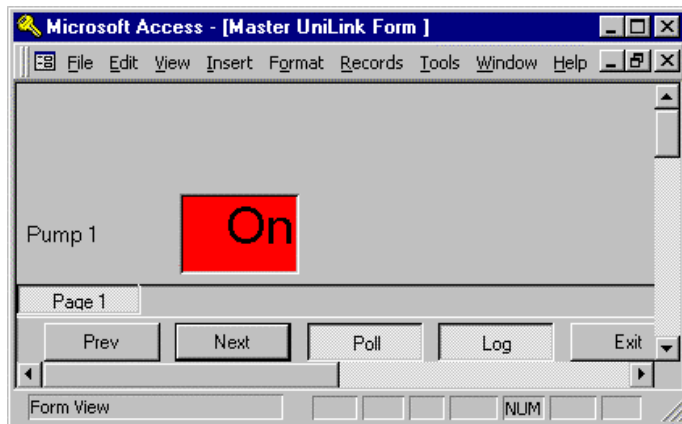
Design View

**Text Box: Pump1**

Property	Value
Name	Pump1
Control Source	
Format	Fixed
Decimal Places	0
Input Mask	
Default Value	
Validation Rule	
Validation Text	
Status Bar Text	
Enter Key Behavior	Default
Allow AutoCorrect	Yes
Visible	Yes
Display When	Always

To change the background colour when there is no alarm condition from white to, say green, type 65280 in the 'BackColorOk' field in the 'Unidetails' table (or 255 for red).

The 0 or 1 can be changed to show the word "On" if the value of the textbox is non zero. This can be done in the subform / design / textbox properties by changing the text box's format from fixed to On/Off.



Logging the UniMux channels will occur as a 1 for an active (On) channel or a zero for an inactive channel. Advanced Visual Basic programmers can log 'Change of states' via the 'Public Sub AP1\_Control\_Macro(Rst As Recordset)' procedure.