Icon Electronics

D4-MFT1 / P49-MFT1
Multifunction Timer
Operating instructions
and
Guarantee Certificate

www.icon-electronics.com

Description:

This device is used for "on delay", "interval", or "repeating" functions and offers two time ranges: Hours and minutes OR minutes and seconds. In repeating mode, the"on" time may be in one range, and the "off" time in another. With the "save" function activated, timing will continue from where it left off after a power failure. The timer may be pulse controlled (see the "pulse type" menu option). The display can be set to indicate lapsed OR remaining time. The menu can be reduced to allow changes to the timing value(s) only. (see menu configuration). The parameters may be locked with an access code to protect programmed values.

Menu functionality:

Press the "MENU" button repeatedly until the desired setting is reached, press "SELECT" to display the current value of the selected setting, or sub menu (if applicable). The "+" and "-" buttons are used to change the value. "ENTER" will return the device to the menu. The "BACK" button will exit the menu.

Menu options:

· Function ("Func") Use this setting to select the device's functionality.

The following sequences may be started by applying an the external pulse or removing and re-applying the power (see "PulS" setting)

· On delay ("on d")

The relay remains off for the period programmed into the "t1" setting whereupon it energises until pulsed or reset.

· Interval ("int")

The relay energises immediately. After the period programmed into the "t1" setting has lapsed, it de-energises until the device is pulsed, or reset.

· Repeating ("rEP")

The relay is energised for the period programmed into the "on t" setting. Thereafter the relay de-energises for the "OF t" period. The device may be programmed to start with the off time first. (see "Firs" setting).

· Time range "rAnge" ("on delay" and "interval" modes only)

Either hours and minutes (hh.mm) or minutes and seconds (mm.ss)

· Timing value ("Set") ("on delay" and "interval" modes only)

This is the period of the selected timing sequence. Depending on the selected time range, the value entered will represent hours and minutes, OR minutes and seconds.

· "on" Time range "on r" ("repeating" mode only)

Either hours and minutes (hh.mm) or minutes and seconds (mm.ss)

· "off" Time range "OF r" ("repeating" mode only)

Either hours and minutes (hh.mm) or minutes and seconds (mm.ss)

· Relay on time ("on t") ("repeating" mode only)

This is the period the relay is energised in a repeating configuration. Depending on the selected time range, the value entered will represent hours and minutes, OR minutes and seconds.

· Relay off time ("OF t") (only available in "repeating" configuration)

This is the period the relay is de-energised in a repeating configuration. Depending on the selected time range, the value entered will represent hours and minutes, OR minutes and seconds.

· Relay state at start-up ("FirS") (only available in "repeating" configuration)

When the device is configured to repeat, this setting determines whether the "on" or "off" cycle is performed first. Relay on ("on"), or relay off ("OFF") at start-up or reset.

· Wait for pulse ("PuLS") ("on delay" and "interval" modes only)

This setting determines whether the device will start timing immediately at power up, or wait for an external pulse before starting the selected timing sequence. ("OFF" = Start timing immediately), ("on" = wait for first pulse).

This setting is pre-set to "OFF" if the timer function is set to repeat!

· Pulse type ("P.TyP")

Set the device to recognize a pulse / reset when the terminals are opened ("OPEN") or closed ("CLOS").

· Save timer status during power failure ("SAuE")

If set to "ON", the device will continue timing where it left off after a power failure. "OFF" resets the timer whenever the power is removed.

· Display format ("diSP")

· Lapsed time ("LA t")   Period since the start of the current

                           timing sequence.

· Remaining time ("rE t") Period till the relay changes state.

· Reset ("rESt)

By selecting this option, all values are reset to default.: Function = "on delay", range = min & sec, timers = zero, first active relay state = "on", display format = Lapsed time.

Menu Configuration

When not in the menu, press and hold "+" and "-". After 3 seconds the display will toggle through the available options:

"loc"   = available parameters may be viewed, but not changed.
"u.loc"   = available parameters may be changed.
"rEdu"   = remove advanced parameters from menu.
"Full"   = all parameters are available.
"CodE: = Enter a code between 1 & 9999.

To set an option, release the buttons while the option is being displayed. To skip code entry, press "Enter" while "CodE" is displayed.

Once the code is entered, the first four options are not available until the correct code is re-entered. To clear the code (in case it is forgotten), hold the "+" & "-" buttons while the device powers up.

Example 1: Set the device for an interval time of 2 min and 10 seconds:

Press "MENU" to display "Func". Press "SELECT". Use the "+" and "-" buttons to change the value to "int". Press "ENTER" to return to the menu. "rAng" is displayed. Press "SELECT". Use "+" and "-" to change the value to "nn.SS" (min & sec). Press "ENTER". "Set" is displayed. Press "SELECT". Use "+" and "-" to change the value to "2.10". Press "ENTER". Press "BACK".

Notes:

· If the pulse function is turned on, pulses received while the timing cycle is active, will be ignored. If the pulse function is off, pulses received will reset the current timing cycle.
· As a power saving feature, the display dims if settings are not being made.
· We recommended that all relay connections be disconnected while making adjustments, and the unit be reset by disconnecting the power after settings have been changed.
· When programming the timing values, the data pointer in the lower right corner of the display is lit when the current timer's range is hours & minutes.
· When the time is displayed (lapsed or remaining), the data pointer in the lower right corner of the display flashes when the value is in the hours & min range.

Specifications:

Timing range:	min & sec :	59 min : 59 sec
	hours & min:	99 hours : 59 min
Accuracy:	0.05%	
Display Resolution:	seconds or minutes (depending on time range)	
Input voltage:	±15% of rated input	
Led indication:	Relay status	
Response time:	0.5 sec (power supply reset)	
	0.05 sec (reset pulse)	
Minimum pulse width	45ms (close or open – see menu options)	
proximity input:	**NPN** (10 to 30V supply incorporated)	

12 Month guarantee:

Our product is guaranteed for a 12 (twelve) month period from date of purchase. This guarantee is valid for defects arising from failure during specified conditions. This guarantee does not cover damage due to abuse, tampering or improper installation. Our company does not accept liability for any consequential damage or loss arising from product malfunction. Should this product prove to be defective, kindly return for inspection or repair. For further information contact your nearest distributor.

For further information visit us at **www.icon-electronics.com**

Relay specifications:

Contact rating: 10A 250 VAC 2500VA (Resistive)
Mechanical life: 30 million operations
Electrical life: 250 000 operations (at maximum load)