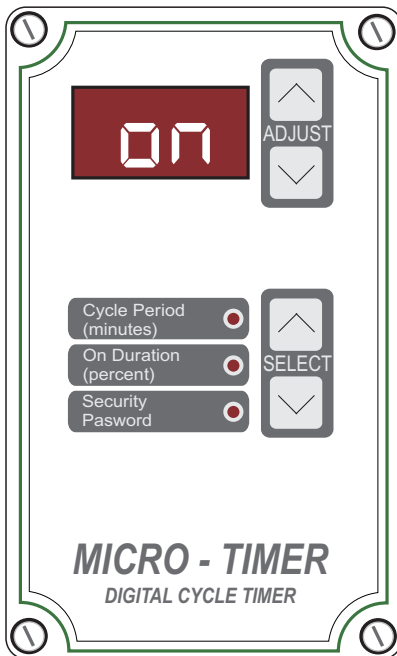


MICRO - TIMER

PRECISION MICROCOMPUTER CYCLE TIMER

PLEASE READ IMPORTANT INFORMATION



Welco Engineering Ltd

Unit 7a - 7c, Vale Road,
Spilsby, Lincolnshire,
PE23 5HE
Tel: 01673 857575

HEALTH AND SAFETY AT WORK



DANGER
ELECTRIC SHOCK RISK

ELECTRIC DEVICES CAN CONSTITUTE A SAFETY HAZARD

It is the responsibility of the user to ensure that the installation and maintenance of the product are carried out in strict compliance with any relevant instructions, regulations, codes of practice or bylaws in force.

This equipment should only be installed and commissioned by appropriately qualified personnel who have read and fully understood this users manual. If in doubt contact your supplier or Welco Engineering Ltd. for technical advice.

Every care has been taken to ensure that the contents of this instruction booklet are accurate , however no liability is accepted for any consequence of its use.

The manufacturers reserve the right to revise the product specification and other technical features resulting from improvement and continual development.

MICRO-STAT SPECIFICATIONS

Supply	230v 50hz -6% +10% 10va.
Setting Times.....	Front Panel Touch Buttons.
Off Time	Adjustable 12sec. to 25 min.
On Time	Adjustable 0sec. to 25 min.
Output Relay.....	Single Pole Changeover.
Relay Contact Rating	8A 30v d.c. / 230v a.c.

DESCRIPTION

The crystal controlled MICRO-TIMER digital cycle timer designed and manufactured by Welco Engineering Ltd. Operates on a 230v 50 Hz supply and employs a micro computer to ensure precisely timed cyclic operation of the output relay.

SETTING TIMES

In order to make any adjustments to the ON and OFF time periods, the MICRO-TIMER initially requires a security password number to be entered. Your SECURITY PASSWORD NUMBER for the MICRO-TIMER IS 222 and should remain confidential to prevent unauthorized adjustments.

ENTERING SECURITY PASSWORDS NUMBERS

- 1 Select the Security Password Parameter by operating the lower touch pads marked SELECT until the appropriate LED is illuminated.
 - 2 Using the upper ADJUST touch pads, set the security password to 222
- Having entered the correct password the Cycle Period can now be set.

ENTERING CYCLE PERIOD TIME

- 3 Select the Cycle Period Time Parameter using the SELECT lower touch pads. Note Cycle Period LED is now illuminated.
- 4 Set the Cycle Period Time ranging from 12 seconds to 25 minutes, by using the upper ADJUST touch pads. Note that the digital display records the time in minutes therefore 20.4 minutes displayed is actually a Cycle Period time of 20 minutes and 24 seconds see diagram below.

ENTERING ON DURATION

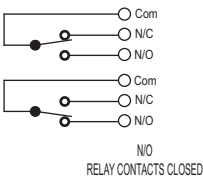
- 5 Select the ON Duration Parameter using the SELECT touch pads. This parameter is a percentage of the Cycle Period time, therefore using the above example, when the On Duration parameter is set to 25, the period that the output relay normally open [N/O] contacts are closed will be 5 minutes 6 seconds. By increasing the on duration parameter value for example to 75, the contacts closed time will be increased to 15 minutes 18 seconds.
 - 6 Set the on Duration Percentage by using the upper ADJUST touch pads to set the value required.
- NOTE:- the MICRO- TIMER calculates the ON Duration time to the nearest 6seconds

APPLYING SECURITY

- 7 Select the Security Password Parameter using the SELECT touch pads.
 - 8 Set the displayed number to any number except 222
- After ashort period the unit will operate in a secure mode and display the status of the relay.

OUTPUT RELAY STATUS DISPLAY

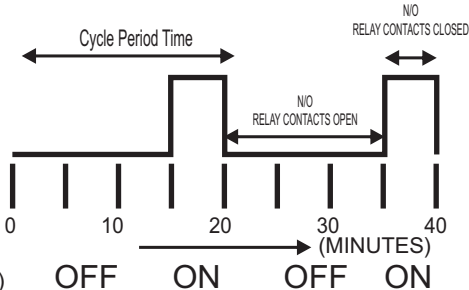
Display OFF Output Relay Contacts	Normally Open	Open
	Normally Closed	Closed
Display ON Output Relay Contact	Normally Open	Closed
	Normally closed	Open



Total Time Period 20.4 Minutes

Percentage 25%

OFF Time 15 Minutes 18 seconds
ON Time 5 Minutes 6 seconds



If the output relay is used to operate a contactor, it is strongly advised that a “snubber network” is connected across the contactor coil. R = 100r C = 0.1uf These components are available from Welco Engineering Ltd

Welco Engineering Ltd.

For over 40 year's Welco Engineering Ltd. have specialised in the design, manufacture and installation of state of the art electrical and electronic control systems and equipment for agriculture and industry.

The company offers large comprehensive range of standard manufactured products to satisfy the majority of environmental control requirements, and a service to build to customers specific requirements.

Welco Engineering Ltd., also offer a consultancy service, based on engineers considerable knowledge and expertise in resolving the many environmental problems associated with intensive livestock production units.

Welco PRODUCTRANGE

- ☐ Fan Speed Controllers.
- ☐ Automatic Fan Controllers with switched Heater Interlocks.
- ☐ Electronic Sequential fan Controllers.
- ☐ PRESCON 2 Digital Air-Pressure controller.
- ☐ Lighting Control Systems.
- ☐ Total Refurbishment Programmes.
- ☐ Maintenance Contracts.

Welco Engineering Ltd.

- ☐ **Welco MICROLIGHT**
"Dawn to Dusk" Controls
- ☐ High and Low Temperature Alarms
- ☐ Supply failure Alarms
- ☐ Alarm Monitoring Systems
- ☐ Magnetically Held Door Control Systems
- ☐ MICRO-STAT Digital Thermostat.
- ☐ MICRO-TIMER Digital Cycle Timer.
- ☐ Transducers, Sensors and Thermostats.
- ☐ Vent Drive Motors/ linear Actuators and Power Supplies
- ☐ STICK Microcomputer Total Environment Controller

For further details of any product or service please do not hesitate to contact us:-

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PE23 5HE
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