

# mL-MFU4

PROGRAMMABLE TIMER & COUNTER WITH OUTPUTS 96 x 96 DIN

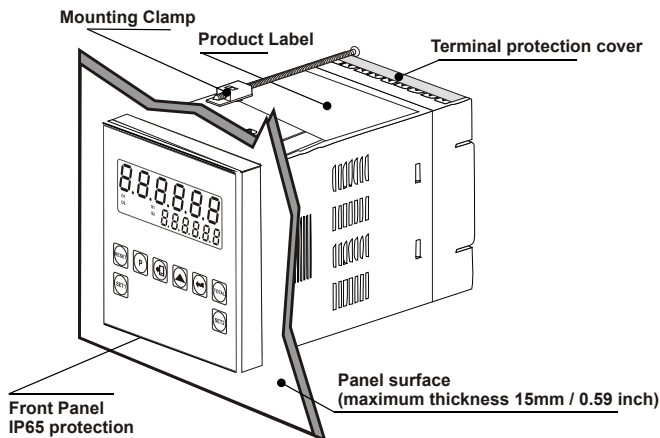
## FEATURES

- 6 digits Process (PV) and 6 digits Set (SV) Value Display
- Operation with 2 Set Value
- Reset, Pause and ChA-ChB Counting Inputs
- Configurable Counter “Totalizer Counter”, Batch Counter, Timer, Chronometer, Frequency meter and Tachometer Functions
- Programmable Time Bases for Timer and Chronometer (Second, Minute, Hour )
- Operation with Automatic and Manual Reset
- Two 5A Relay Outputs
- PNP/NPN Type Operation
- INC, DEC, INC I INC, INC I DEC, UP I DOWN, x1 I x2 I x4 Counting with Phase Shifting (Quadrature) Property in Counter Function
- Multiplication Coefficient and Decimal Point Position
- Different Alarm Alternatives in Frequency meter and Cycle Measuring Functions
- Absolute or Offset Operation in Counter Function
- RS-485 Serial Communication with Modbus ASCII or RTU Protocol

## DESCRIPTION

The mL-MFU4 Programmable Timer & Counter can be used in package machines, production and quality control rollers, in cutting and processing machine of glass, plastic, marble, sheet, iron, fabric all measuring and controlling of dimension, count, total count, speed, cycle, productivity, time and can be adapted easily to all mechanical construction and automation system. They can be used in many application with their control outputs, serial communication unit and output modules.

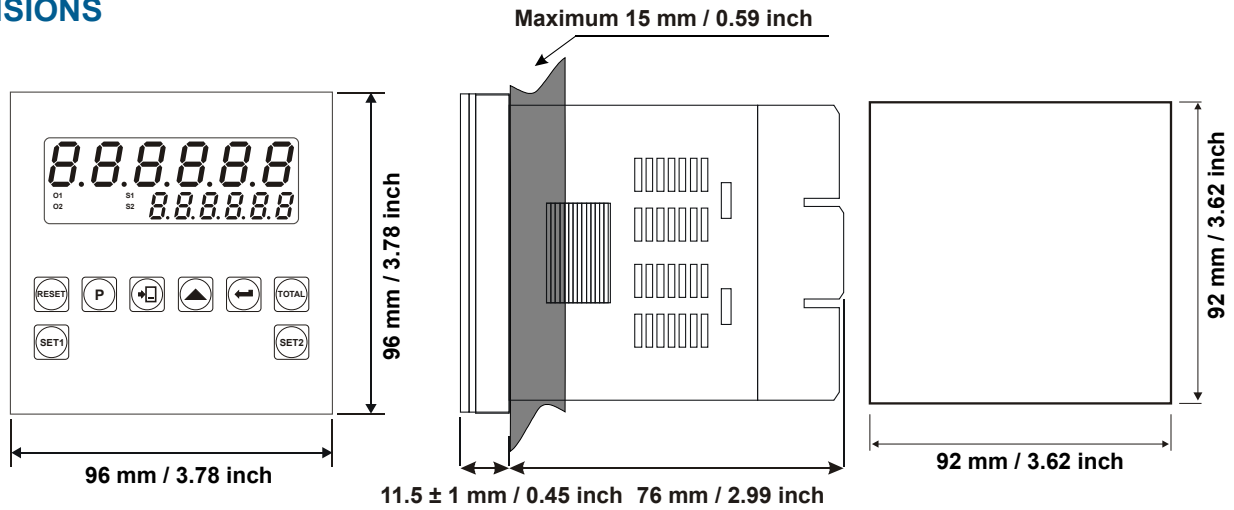
## GENERAL DESCRIPTION



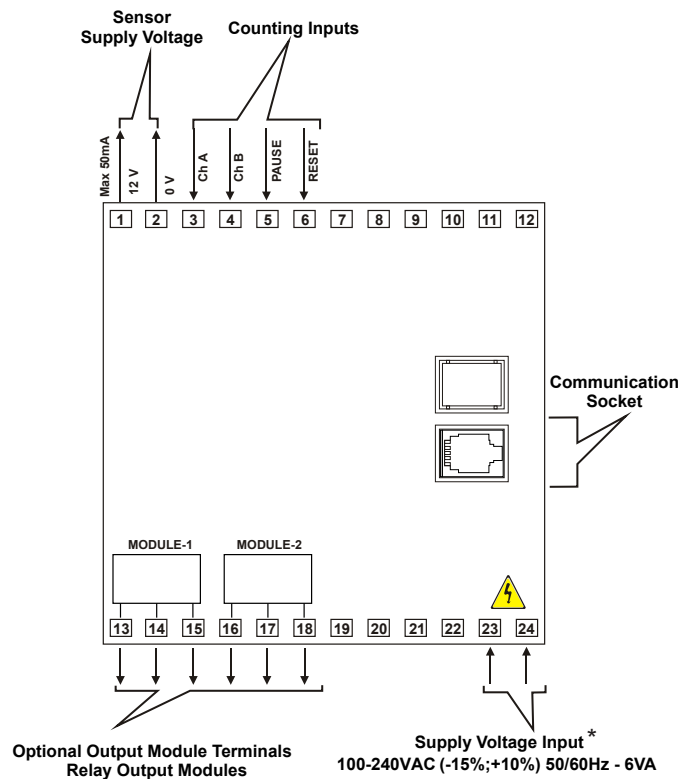
## SPECIFICATIONS

Device Type	Programmable Timer & Counter
Housing & Mounting	96mm x 96mm x 87.5 1/4 DIN 43700 plastic housing for panel mounting. Panel cut-out is 92x92mm. Type-1 Enclosure Mounting.
Protection Class	IP65 at front, IP20 at rear.
Weight	Approximately 0.34 Kg.
Environmental Ratings	Standard, indoor at an altitude of less than 2000 meters with none condensing humidity
Storage / Operating Temp.	-40° C to +85° C / 0° C to +50° C
Storage / Operating Humidity	90 % max. (None condensing)
Installation	Fixed installation
Over Voltage Category	II
Pollution Degree	II, office or workplace, none conductive pollution
Operating Conditions	Continuous
Supply Voltage and Power	100 - 240 VAC 50/60 Hz. (-15% / +10%) 6VA
Electrical Characteristics of Digital Inputs	Rated voltage: 16 VDC @ 5mA Maximum continuous permissible voltage : 30 VDC Logic 1 minimum level : 3 VDC Logic 0 maximum level : 2 VDC
Maximum Input Frequency	For Counter / "Totalizer Counter" and Batch Counter ; If P <sub>ro-0</sub> I = 0 , 1 , 2 ; 6000Hz If P <sub>ro-0</sub> I = 3 , 4 ; 4000Hz If P <sub>ro-0</sub> I = 5 , 6 ; 3500Hz If P <sub>ro-0</sub> I = 7 ; 2000Hz For Frequencymeter / Tachometer ; 10kHz Max 30 Hz ( P <sub>ro-04</sub> ≠ 000000, debounce)
Timer Accuracy	Tolerance (25°C): +/- 30 ppm Aging: +/- 5 ppm / year Timing resolution dependent on selected time base Allow for electromechanical relay response time when used (typically 30mSec)
Outputs	2 Relay Outputs (5A@250V AC) 100.000 operation (Full Load)
Standard Communication	RS-485 Communication Module
Communication Protocol	MODBUS-RTU, MODBUS-ASCII
Process Display	14 mm Red 6 digit LED display
Set Display	9 mm Green 6 digit LED display
Led Indicators	SV1 (Set1 value), SV2 (Set2 value) , O1 / 2 (Control or Alarm Output ) LEDs

## DIMENSIONS



## WIRING



\* External Fuse is recommended (1A T)

## ORDERING INFORMATION

Model Number	Description
mL-MFU4	Programmable Timer & Counter with Output 100 - 240 VAC (-15%; +10%) 50/60Hz RS485 Serial Communication 2 Relay Outputs (5A @ 250 VAC ~ Resistive Load)