

# BALOGH



# MOT-120

## Identification Systems

## Mono Block TIRIS Reader/Programmer

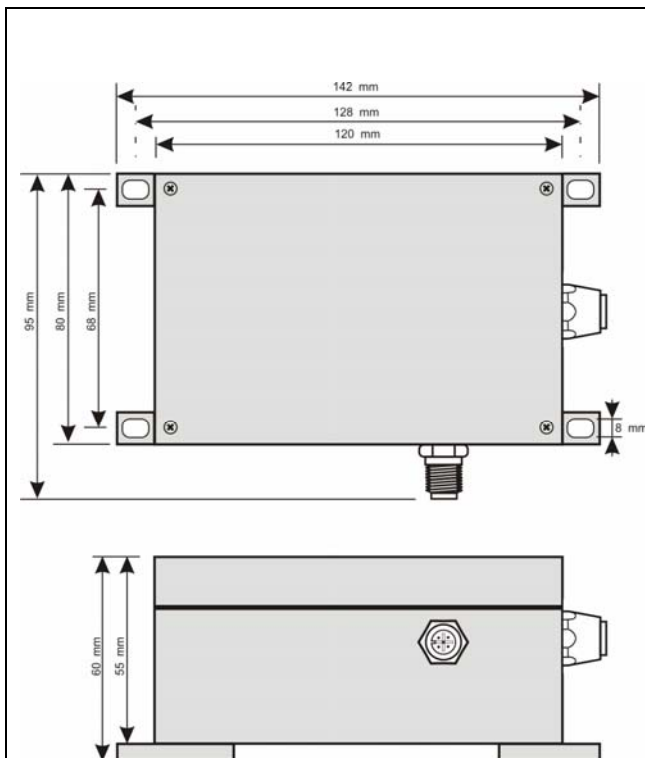
### Description

BALOGH's MOT-120 is a monoblock design which incorporates an omni-directional antenna and control board into a single enclosure and permits the Reading and Programming of the Texas Instruments TIRIS low frequency transponders of the Multi-Page Transponder or MPT series (Part number RI-TRP-DR2B).

The MOT-120 uses a simple three wire RS-232 communications interface to communicate serially between the host device and the MOT-120. The protocol used for the serial transmissions is the MODBUS® protocol in RTU mode. The command set allows for the following operations to be performed.

- Reading the MPT's memory block by block
- Reading multiple blocks of the MPT's memory with one command
- Reading the current Status of the MPT's proximity to the antennas sensing face
- Reading the firmware revision level
- Writing the MPT's memory block by block

### Layout



#### Power Input

#### Communications Connection

PIN	Assignment	PIN	Assignment
1	+24V	1	Not Connected
2	Not Connected	2	RxD RS-232
3	Not Connected	3	TxD RS-232
4	0Vdc	4	Signal Ground
		5	Not Connected

# Transmitting Characteristics

**Note:** The following data pertaining to the MPT Transponders ranges has been measured in free air.

## MOT-120

				TIRIS MPT	
				Read	Write
Nominal Range	H	mm		80	60
Recommended Range	Sr	mm		32	32
Zone					
Static	Typ. length at Sr	L	mm	100	100
	Typ. width at Sr	I	mm	80	80

## General Characteristics

Operating Temperature	-25°C to +70°C
Weight	380 g
Protection Rating	IP 65
Packaging	ABS

## Electrical Characteristics

Power Supply Voltage	24 VDC
Range of Voltage	+/- 10% < 2% Ripple
Current Consumption	250mA Maximum

## LED Characteristics

Power OK (green)	Normally on and solid green to indicate that the power supply is operating within its limits.
Trans Active (red)	Normally on and solid red to indicate that the RF-Transmitter is off. This output will briefly turn off when the transmitter is activated due to a read or program operation.
Valid Op (green)	Normally off. This indicator will turn on green for approximately 60ms to indicate that a valid transponder read or program request was completed. If this indicator does not turn on after a read or program request then an error was detected while communicating with the transponder and an error reply will be returned by the unit indicating the nature of the failure.
Op in Prog (red)	Normally off. This indicator will turn on red while a transponder read or program operation is in progress.