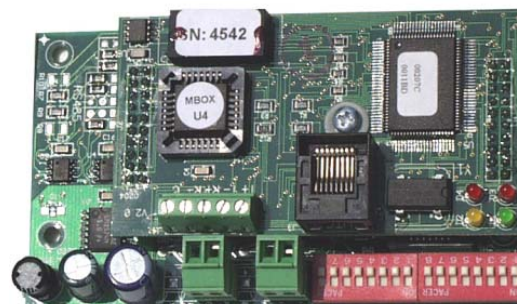


MINI Ethernet module (MBOX)

Fields of application

The XMP-MBOX is an adapter module for the connection of XMP automation stations or XMP communication terminals to the local area network (LAN). Thus, it is possible to connect, for example, the XMP-K24, TM601..TM703, XMP32 or XMP96 via Ethernet (10BASE T) to the management system BABYLON/NT. The MBOX was designed for the possibility of insertion directly into the housing of a XMP-K24 or into the TM600/700.

Ethernet 10BASE T connection module for XMP-K24, TM601..TM703, XMP32, XMP96



XMP – MBOX

Functions

- 10BASE-T-Ethernet/RS485 (2-wire) media converter
- ICMP support (PING)
- hardware addressing via micro switches
- IP address can be set by host computer software
- world-wide unique, 12 digit Ethernet (MAC) address (starting with MBOX version 2.x)
- diagnosis of the communication states by 4 LEDs
- Twisted-Pair connection via Phoenix connectors or RJ45.
- Voltage supply and RS485 databus connection via Phoenix connectors
- additional GND connector for potential equalization
- possibility of insertion into the XMP-K24 and TM600 housing

Technical data

Power supply: 5 V DC MBOX-101/102
10..24 V AC or
12..30 V DC MBOX-103

Power-consumption: approx. 3 VA

Interfaces: Twisted Pair (10 Base T)
RS485 2-wire

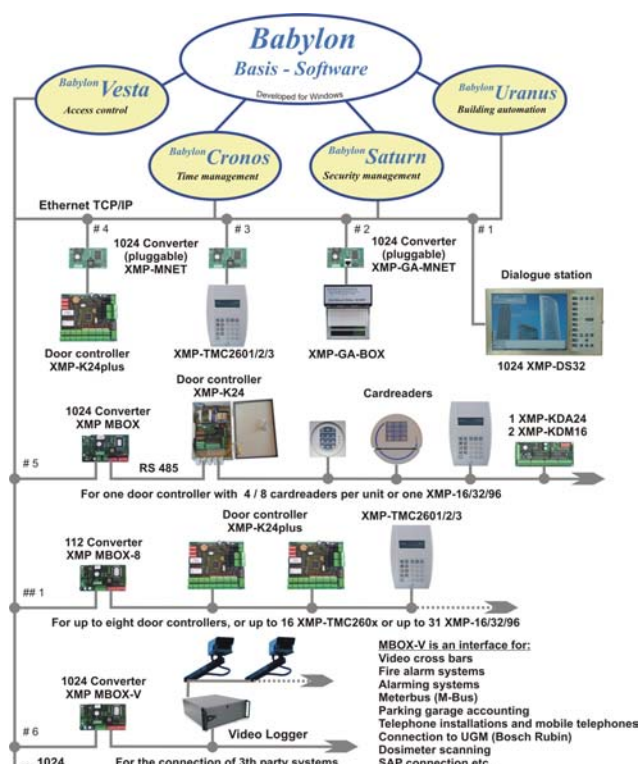
Processor: NEC 70320 (V25),
16 Bit, 7,4 MHz, CMOS design

Memory: 512 kB EPROM
4 kB serial CMOS EEPROM
32 kB/128 kB CMOS-RAM

Environmental conditions: Operation: 0..70 °C
Storage: -40..70 °C

Dimensions: (HxWxD) 60 x 105 x 35 mm

Weight: Approx. 0.1 kg



Scheme for the connection possibilities of the XMP-MBOX to the BABYLON/NT system

Legend

TMC260x/TMC270x: Terminal for time recording and access control for direct connection to BABYLON/NT

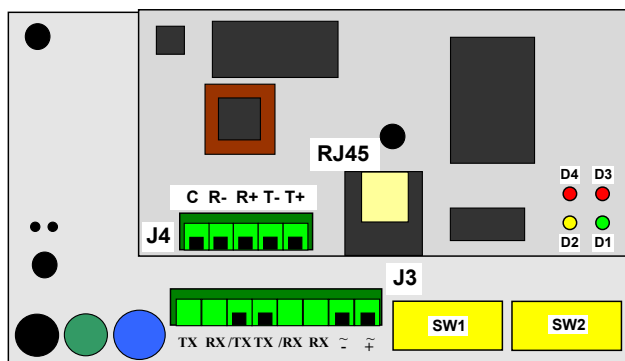
XMP-K24^{plus}: Intelligent door control unit for the connection of up to 4 access control terminals. The device is equipped with 8 binary outputs and 16 binary inputs.

Order numbers:

XMP-MBOX-101 5V (XMP-K24,XMP32,XMP96)

XMP-MBOX-102 5V (XMP-TM5-601..703)

XMP-MBOX-103 12V (XMP-K24,XMP32,XMP96)

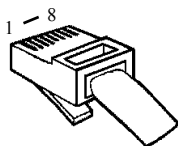


XMP- MBOX, version 4 (top-view)

Termination occupancy of the XMP-MBOX

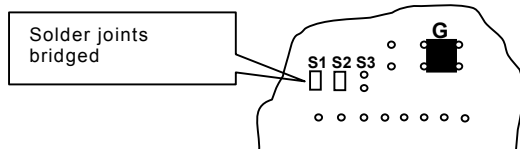
MBOX (J3)	MBOX (J4)	XMP device (RJ45)	Ethernet	Description
TX	DTR	R+ (RS485)		RS485 (2-wire)
/TX	TXD	R- (RS485)		RS485 (2-wire)
+ / ~		5V- / 10-24V~		Power supply
- / ~		GND		Power supply
	C	C		Potential equalization
	R-		PIN 6	Ethernet Twisted pair
	R+		PIN 3	Ethernet Twisted pair
	T-		PIN 2	Ethernet Twisted pair
	T+		PIN 1	Ethernet Twisted pair

Pin occupancy RJ45 connector (contact row above)



Hints for wiring

The supplying voltage for the MBOX can be delivered central from the TM601 - TM703 and XMP-K24 assemblies by the 5V power supply of the corresponding device. For the XMP32 and XMP96 devices the MBOX is powered by an external 8-12 V DC voltage supply. If necessary the user oneself can realize a rearrangement of the MBOX power supply from 5V onto 10-24 V:



Back view of the MBOX-CPU board
(G = rectifier, S1..S3 = solder joints)

Operation mode	Solder joints bridged ?
5V DC	S1 (yes); S2(yes); S3(no)
12-24 V DC	S1 (no); S2(yes); S3(yes)
10-24V AC	S1 (no); S2(no); S3(yes)

ATTENTION!

In case of direct current the polarity at the connector J3 (pin1 = „+“ and pin2 = GND) must be considered. Especially then, if several MBOXes should be run together with only one power supply.

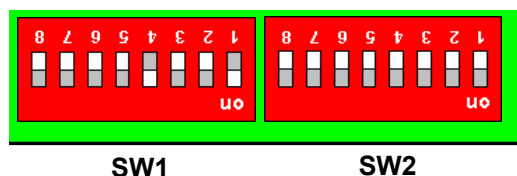
Meaning of the LEDs

After activating the MBOX voltage supply all 4 LEDs will be switched on for approx.1 second (lamp test). Afterwards the meaning of the LEDs D1..D4 is as follows:

- D1** status for IP address
- D2** polling/parameter telegram received
- D3** telegram transmitted
- D4** telegram received

Address setting

The MBOX hardware address (max. 1023) must be set in binary manner with the micro switch blocks **SW1** (switches 1..8, LSB) and **SW2** (switches 1 and 2, MSB).



Micro switch blocks SW 1 and SW2 for setting the MBOX hardware address (example: address = 9)

ATTENTION!

For the XMP assembly always the hardware address 0 must be set!

The network address (IP address) of the MBOX must be set by the use of the BABYLON utility program **U3SIP.EXE**.

Dimensions in mm

