

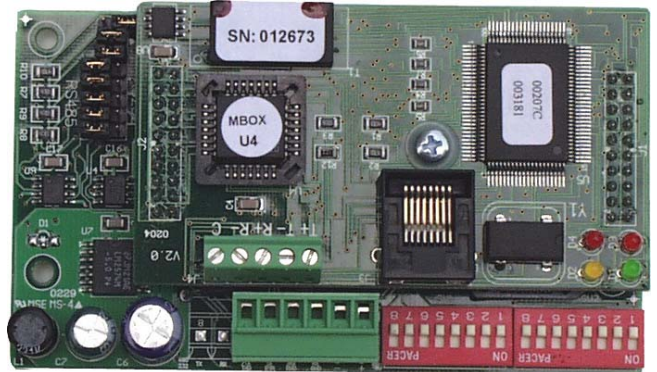
## Intelligent Ethernet module XMP-MBOX-V

### Fields of application

Universal Ethernet module for the connection of 3th-party systems (e.g. alarm centrals, video cross bars, MBUS) to the building management system BABYLON/NT. The MBOX-V is integrated into the local area network (LAN) and communicates via serial interface with the 3th party system.

The designation „V“ of the MBOX represents the meaning of „variable“ here. The MBOX was designed for the possibility of insertion directly into the housing of a XMP-K24 or into the TM600/700.

## 10Mbit network adapter for serial connections



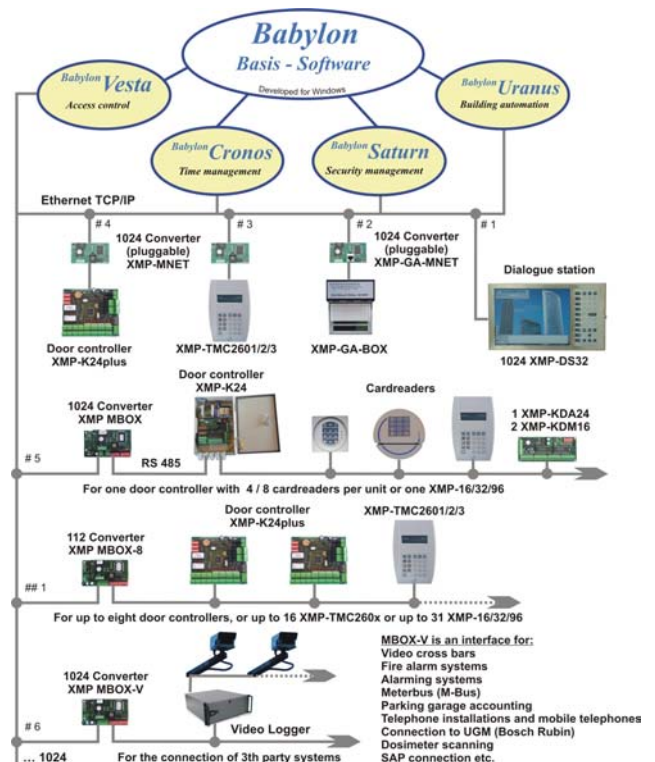
**XMP-MBOX-V**

### Functions

- converter from 10Mbit Ethernet to RS232 or RS485 (2-wire / 4-wire)
- 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
- diagnosis of the communication states by 4 LEDs
- Twisted-Pair connection via Phoenix connectors or RJ45.
- voltage supply and databus connection via Phoenix connectors
- software interfaces and driver on inquiry

### Technical data

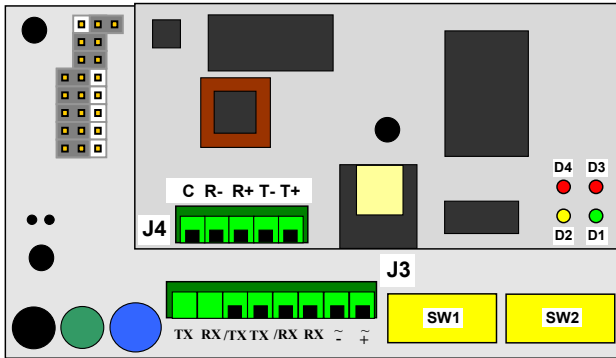
<b>Power supply:</b>	10..24 V AC or 12..30 V DC option: 5 V DC (→board modification)
<b>Power consumption:</b>	approx. 4 VA
<b>Interfaces:</b>	Twisted Pair (10 Mbit) RS232 or RS485 (2-wire/ 4-wire) adjustable
<b>Processor:</b>	NEC 70320 (V25), 16 Bit, 7,4 MHz, CMOS design
<b>Memory:</b>	1024 (2048) kB EPROM 4 kB serial CMOS EEPROM 32 kB/128 kB CMOS-RAM
<b>Environmental conditions:</b>	Operation: 0..70 °C Storage: -40..70 °C
<b>Dimensions:</b>	(HxWxD) 60 x 105 x 35 mm
<b>Weight:</b>	approx. 0.1 kg



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

### Order numbers:

- XMP-MBOX-200** MBOX-V assembly
- XMP-MBOX-210** od. Housing, including power supply for up to two MBOX assemblies
- XMP-MBOX-216** Mounting plate with pre-mounted power supply for up to two MBOX assemblies
- XMP-MBOX-214** Mounting plate with pre-mounted power supply for up to two MBOX assemblies

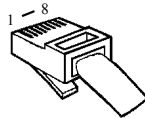


XMP- MBOX (top-view)

**Termination occupancy of the XMP-MBOX-V**

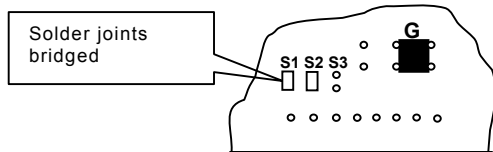
MBOX J3	MBOX RS485 (J3)	MBOX RS232 (J3)	MBOX Ethernet	ENET (J1) (RJ45)
1	+	+		
2	-	-		
3	RX	GND		
4	/RX	RXD		
5	TX	DTR		
6	/TX	TXD		
			R-	PIN 6
			R+	PIN 3
			T-	PIN 2
			T+	PIN 1

Pin occupancy RJ45 connector (contact row above)



**Hints for wiring**

The MBOX housings XMP-MBOX-210/216 contain a power pack for two MBOX assemblies. 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.

**Jumper configurations**

R END	R END	open → termination resistor for the serial interface nat active
2 / 4 (Draht)	2 / 4 (Draht)	both set → serial interface is configured as 2-wire line
RS485 / RS232	RS485 / RS232	All set on left-side → serial interface is configured as RS485 line

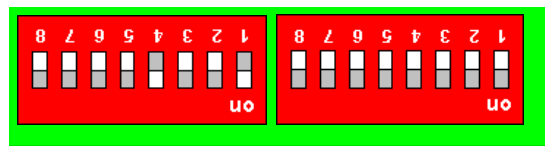
**Meaning of the LEDs**

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 signal for “serial interface transmit”
- 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).



SW1

SW2

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

The network address (IP address) of the MBOX-8 must be set by the use of the BABYLON utility program U3SIP.EXE.

The MBOX-V application software can be downloaded into the MBOX-V by the use of the BABYLON utility program U3PMB.EXE.

**Dimensions in mm**

