VMB2BL

2-channel Blind Control Module
PROTOCOL

Binairy format:
 <SOF-SID10...SID0-RTR-IDE-r0-DLC3...0-DATABYTE1...DATABYTEn-CRC15...CRC1-CRCDEL-ACK-ACKDEL-EOF7...EOF1-IFS3...IFS1>

bits	Description
SOF	Start Of Frame (always 0)
SID10 & SID9	Priority (00: highest … 11: lowest priority)
SID8…SID1	Address
SID0	Always 0
RTR	Remote Transmit Request
IDE	Identifier Extension (always 0)
r0	reserved (always 0)
DLC3…DLC0	Data Length Code (0…8)
Databyte1	Command
Databyte2	Parameter
Databyte3	Parameter
Databyte4	Parameter
Databyte5	Parameter
Databyte6	Parameter
Databyte7	Parameter
Databyte8	Parameter
CRC15…CRC1	Cyclic Redundancy Checksum
CRCDEL	CRC Delimiter (always 1)
ACK	Acknowledge slot (transmit 1 readback 0 if received correctly)
ACKDEL	Acknowledge Delimiter (always 1)
EOF7...EOF1	End Of Frame (always 1111111)
IFS3...IFS1	InterFrame Space (always 111)

The blind module can transmit the following commands:
- Updates LEDs on a push button module
- Clears LEDs on a push button module
- Sets LEDs on a push button module
- Blinks LEDs fast on a push button module
- Blinks LEDs very fast on a push button module

The blind module can transmit the following messages:
- Blind status
- Local Push buttons & blind relays switch status (Build 0815 or higher)
- Module type
- Bus error counter status (Build 0648 or higher)
- First, second and third part of the blind name
- First, second and third part of the local push button names (Build 0815 or higher)
- Memory data
- Memory data block (4 bytes) (Build 0735 or higher)

The blind module can receive the following messages:
- Push button status

The blind module can receive the following commands:
- Switch blind off
- Switch blind up
- Switch blind down
- Blind status request
- Clear Push button Led (Build 0811 or higher)
- Module type request
- Bus error counter status request (Build 0648 or higher)
- Blind and /or push button name request (Build 0815 or higher)
- Read memory data
- Read memory data block (4 bytes) (Build 0742 or higher)
- Memory dump request (Build 0735 or higher)
- Write memory data
- Write memory data block (4 bytes) (Build 0742 or higher)

Transmits the local push buttons & blind relays switch status: (Build 0815 or higher)

    SID10-SID9 = 00 (highest priority)
    SID8...SID1 = Address set by hex switches
    RTR = 0
    DLC3...DLC0 = 4 databytes to send
    DATABYTE1 = COMMAND_PUSH_BUTTON_STATUS (H'00')
    DATABYTE2 = Push buttons just pressed / blind relays just switched on (1 = just pressed/switched on)
    DATABYTE3 = Push buttons just released / blind relays just switched off (1 = just released/switched off)
    DATABYTE4 = Push buttons just long pressed (1 = longer than 0.85s pressed)

	Databyte2	*Databyte3*	*Databyte4*
Channel 1 blind up relay just switched on	B'xxxxxx01'	B'xxxxxx00'	B'xxxxxx00'
Channel 1 blind up relay just switched off	B'xxxxxx00'	B'xxxxxx01'	B'xxxxxx00'
Channel 1 blind down relay just switched on	B'xxxxxx10'	B'xxxxxx00'	B'xxxxxx00'
Channel 1 blind down relay just switched off	B'xxxxxx00'	B'xxxxxx10'	B'xxxxxx00'
Channel 1 local up push button just pressed	B'xxx1xxxx'	B'xxx0xxxx'	B'xxx0xxxx'
Channel 1 local up push button just long pressed	B'xxx0xxxx'	B'xxx0xxxx'	B'xxx1xxxx'
Channel 1 local up push button just released	B'xxx0xxxx'	B'xxx1xxxx'	B'xxx0xxxx'
Channel 1 local down push button just pressed	B'xx1xxxxx'	B'xx0xxxxx'	B'xx0xxxxx'
Channel 1 local down push button just long pressed	B'xx0xxxxx'	B'xx0xxxxx'	B'xx1xxxxx'
Channel 1 local down push button just released	B'xx0xxxxx'	B'xx1xxxxx'	B'xx0xxxxx'
Channel 2 blind up relay just switched on	B'xxxx01xx'	B'xxxx00xx'	B'xxxx00xx'
Channel 2 blind up relay just switched off	B'xxxx00xx'	B'xxxx01xx'	B'xxxx00xx'
Channel 2 blind down relay just switched on	B'xxxx10xx'	B'xxxx00xx'	B'xxxx00xx'
Channel 2 blind down relay just switched off	B'xxxx00xx'	B'xxxx10xx'	B'xxxx00xx'
Channel 2 local up push button just pressed	B'x1xxxxxx'	B'x0xxxxxx'	B'x0xxxxxx'
Channel 2 local up push button just long pressed	B'x0xxxxxx'	B'x0xxxxxx'	B'x1xxxxxx'
Channel 2 local up push button just released	B'x0xxxxxx'	B'x1xxxxxx'	B'x0xxxxxx'
Channel 2 local down push button just pressed	B'1xxxxxxx'	B'0xxxxxxx'	B'0xxxxxxx'
Channel 2 local down push button just long pressed	B'0xxxxxxx'	B'0xxxxxxx'	B'1xxxxxxx'
Channel 2 local down push button just released	B'0xxxxxxx'	B'1xxxxxxx'	B'0xxxxxxx'

Transmit: Updates LEDs on a push button module:

    SID10-SID9 = 11 (lowest priority)
    SID8...SID1 = Address of the push button module for updating the LEDs
    RTR = 0
    DLC3...DLC0 = 4 databytes to send
    DATABYTE1 = COMMAND_UPDATE_LED (H'F4')
    DATABYTE2 = LED continuous on status (1 = LED on)
    DATABYTE3 = LED slow blinking status (1 = LED slow blinking)
    DATABYTE4 = LED fast blinking status (1 = LED fast blinking)

    Remarks:
    The continuous on bit overrides the blinking modes.
    If the slow and fast blinking bits for a LED are both on, the LED blinks very fast.

Transmit: Clears LEDs on a push button module:

    SID10-SID9 = 11 (lowest priority)
    SID8...SID1 = Address of the push button module for clearing LEDs
    RTR = 0
    DLC3...DLC0 = 2 databytes to send
    DATABYTE1 = COMMAND_CLEAR_LED (H'F5')
    DATABYTE2 = LED bit numbers (1 = clear LED)

Transmit: Sets LEDs on a push button module:

    SID10-SID9 = 11 (lowest priority)
    SID8...SID1 = Address of the push button module for setting LEDs on
    RTR = 0
    DLC3...DLC0 = 2 databytes to send
    DATABYTE1 = COMMAND_SET_LED (H'F6')
    DATABYTE2 = LED bit numbers (1 = set LED)

Transmit: Blinks LEDs fast on a push button module:

    SID10-SID9 = 11 (lowest priority)

SID8...SID1 = Address of the push button module for fast blinking LEDs
RTR = 0
DLC3...DLC0 = 2 databytes to send
DATABYTE1 = COMMAND_FAST_BLINKING_LED (H'F8')
DATABYTE2 = LED bit numbers (1 = fast blink LED)

Transmit: Blinks LEDs very fast on a push button module:
SID10-SID9 = 11 (lowest priority)
SID8...SID1 = Address of the push button module for very fast blinking LEDs
RTR = 0
DLC3...DLC0 = 2 databytes to send
DATABYTE1 = COMMAND_VERYFAST_BLINKING_LED (H'F9')
DATABYTE2 = LED bit numbers (1 = very fast blink LED)

Transmits the memory data:
SID10-SID9 = 11 (lowest priority)
SID8...SID1 = Address set by hex switches
RTR = 0
DLC3...DLC0 = 4 databytes to send
DATABYTE1 = COMMAND_MEMORY_DATA (H'FE')
DATABYTE2 = High memory address (must be H'00')
DATABYTE3 = LOW memory address (H'00'...H'FF')
DATABYTE4 = memory data

Transmits memory data block (4 bytes) (Build 0735 or higher):
SID10-SID9 = 11 (lowest priority)
SID8...SID1 = Address of the module
RTR = 0
DLC3...DLC0 = 4 databytes to send
DATABYTE1 = COMMAND_MEMORY_DATA_BLOCK (H'CC')
DATABYTE2 = High start address of memory block (must be H'00')
DATABYTE3 = LOW start address of memory block (H'00'...H'FF')
DATABYTE4 = memory data1
DATABYTE5 = memory data2
DATABYTE6 = memory data3
DATABYTE7 = memory data4

Transmit: Bus error counter status (Build 0648 or higher)
SID10-SID9 = 11 (lowest priority)
SID8...SID1 = Address set by hex switches
RTR = 0
DLC3...DLC0 = 4 databytes to send
DATABYTE1 = COMMAND_BUSERROR_COUNTER_STATUS (H'DA')
DATABYTE2 = Transmit error counter
DATABYTE3 = Receive error counter
DATABYTE4 = Bus off counter

Transmits the blind status:

SID10-SID9 = 11 (lowest priority)
SID8...SID1 = Address set by hex switches
RTR = 0
DLC3...DLC0 = 8 databytes to send
DATABYTE1 = COMMAND_BLIND_STATUS (H'EC')
DATABYTE2 = Blind channel

Contents	Blind channel
B'00000011'	Blind 1
B'00001100'	Blind 2

DATABYTE3 = Time out setting

Contents	Time out
H'00'	15s
H'01'	30s
H'02'	1min
H'03'	2min

DATABYTE4 = Blind status

Contents	Blind status
B'00000000'	Blinds off
B'00000001'	Blind 1 up
B'00000010'	Blind 1 down
B'00000100'	Blind 2 up
B'00001000'	Blind 2 down

DATABYTE5 = Led status

Contents	Mode
B'00000000'	LEDs off
B'10000000'	'Down' LED on
B'01000000'	'Down' LED slow blinking
B'00100000'	'Down' LED fast blinking
B'00010000'	'Down' LED very fast blinking
B'00001000'	'Up LED on
B'00000100'	'Up' LED slow blinking
B'00000010'	'Up' LED fast blinking
B'00000001'	'Up' LED very fast blinking

DATABYTE6 = high byte of current delay time
DATABYTE7 = mid byte of current delay time
DATABYTE8 = low byte of current delay time

Remark:
[DATABYTE6][DATABYTE7][DATABYTE8] contain a 24-bit delay time in seconds

Transmits the module type:

SID10-SID9 = 11 (lowest priority)
SID8...SID1 = Address set by hex switches
RTR = 0
DLC3...DLC0 = 5 databytes to send
DATABYTE1 = COMMAND_MODULE_TYPE (H'FF')
DATABYTE2 = TWO_CHANNEL_BLIND_MODULE_TYPE (H'09')
DATABYTE3 = time out dip switch setting

Contents	Blind 1 time out
B'0000xx00'	15s
B'0000xx01'	30s
B'0000xx10'	1min
B'0000xx11'	2min

Contents	Blind 2 time out
B'000000xx'	15s
B'000001xx'	30s
B'000010xx'	1min
B'000011xx'	2min

DATABYTE4 = Build year (Build 0648 or higher)
DATABYTE5 = Build week (Build 0648 or higher)

Transmits the first part of the blind name:

SID10-SID9 = 11 (lowest priority)
SID8...SID1 = Address set by hex switches
RTR = 0
DLC3...DLC0 = 8 databytes to send
DATABYTE1 = COMMAND_BLIND_NAME_PART1 (H'F0')
DATABYTE2 = Blind channel

Contents	Blind
B'00000011'	Blind 1 name
B'00001100'	Blind 2 name

DATABYTE3 = Character 1 of the blind name
DATABYTE4 = Character 2 of the blind name
DATABYTE5 = Character 3 of the blind name
DATABYTE6 = Character 4 of the blind name
DATABYTE7 = Character 5 of the blind name
DATABYTE8 = Character 6 of the blind name

Transmits the second part of the blind name:

SID10-SID9 = 11 (lowest priority)
SID8...SID1 = Address set by hex switches
RTR = 0
DLC3...DLC0 = 8 databytes to send
DATABYTE1 = COMMAND_BLIND_NAME_PART2 (H'F1')
DATABYTE2 = Blind channel

Contents	Blind
B'00000011'	Blind 1 name
B'00001100'	Blind 2 name

DATABYTE3 = Character 7 of the blind name
DATABYTE4 = Character 8 of the blind name
DATABYTE5 = Character 9 of the blind name
DATABYTE6 = Character 10 of the blind name
DATABYTE7 = Character 11 of the blind name
DATABYTE8 = Character 12 of the blind name

Transmits the third part of the blind name:
    SID10-SID9 = 11 (lowest priority)
    SID8...SID1 = Address set by hex switches
    RTR = 0
    DLC3...DLC0 = 6 databytes to send
    DATABYTE1 = COMMAND_BLIND_NAME_PART3 (H'F2')
    DATABYTE2 = Blind channel

Contents	Blind
B'00000011'	Blind 1 name
B'00001100'	Blind 2 name

    DATABYTE3 = Character 13 of the blind name
    DATABYTE4 = Character 14 of the blind name
    DATABYTE5 = Character 15 of the blind name
    DATABYTE6 = Character 16 of the blind name

    Remarks:
    Unused characters contain H'FF'.

Transmits the first part of the local up or down push button name: (Build 0815 or higher)
    SID10-SID9 = 11 (lowest priority)
    SID8...SID1 = Address set by hex switches
    RTR = 0
    DLC3...DLC0 = 8 databytes to send
    DATABYTE1 = COMMAND_PUSH_BUTTON_NAME_PART1 (H'F0')
    DATABYTE2 = Push button identifier bits

Contents	Button
B'00010000'	channel 1 local up push button name
B'00100000'	channel 1 local down push button name
B'00100000'	channel 2 local up push button name
B'00100000'	channel 2 local down push button name

    DATABYTE3 = Character 1 of the push button name
    DATABYTE4 = Character 2 of the push button name
    DATABYTE5 = Character 3 of the push button name
    DATABYTE6 = Character 4 of the push button name
    DATABYTE7 = Character 5 of the push button name
    DATABYTE8 = Character 6 of the push button name

Transmits the second part of the local up or down push button name: (Build 0815 or higher)
    SID10-SID9 = 11 (lowest priority)
    SID8...SID1 = Address set by hex switches
    RTR = 0
    DLC3...DLC0 = 8 databytes to send
    DATABYTE1 = COMMAND_PUSH_BUTTON_NAME_PART2 (H'F1')
    DATABYTE2 = Push button identifier bits

Contents	Button
B'00010000'	channel 1 local up push button name
B'00100000'	channel 1 local down push button name
B'00100000'	channel 2 local up push button name
B'00100000'	channel 2 local down push button name

    DATABYTE3 = Character 7 of the push button name
    DATABYTE4 = Character 8 of the push button name
    DATABYTE5 = Character 9 of the push button name
    DATABYTE6 = Character 10 of the push button name
    DATABYTE7 = Character 11 of the push button name
    DATABYTE8 = Character 12 of the push button name

Transmits the third part of the local up or down push button name: (Build 0815 or higher)
    SID10-SID9 = 11 (lowest priority)
    SID8...SID1 = Address set by hex switches
    RTR = 0
    DLC3...DLC0 = 6 databytes to send
    DATABYTE1 = COMMAND_PUSH_BUTTON_NAME_PART3 (H'F2')
    DATABYTE2 = Push button identifier bits

Contents	Button
B'00010000'	channel 1 local up push button name
B'00100000'	channel 1 local down push button name
B'00100000'	channel 2 local up push button name
B'00100000'	channel 2 local down push button name

    DATABYTE3 = Character 13 of the push button name
    DATABYTE4 = Character 14 of the push button name
    DATABYTE5 = Character 15 of the push button name
    DATABYTE6 = H'FF'

    Remarks: Unused characters contain H'FF'.

'Push button status' received:
    SID10-SID9 = 00 (highest priority)
    SID8...SID1 = Address of the push button module
    RTR = 0
    DLC3...DLC0 = 4 databytes received
    DATABYTE1 = COMMAND_PUSH_BUTTON_STATUS (H'00')
    DATABYTE2 = Push buttons just pressed (1 = just pressed)
    DATABYTE3 = Push buttons just released (1 = just released)
    DATABYTE4 = Push buttons long pressed (1 = longer than 0.85s pressed)

'Switch blind off' command received:
    SID10-SID9 = 00 (highest priority)
    SID8...SID1 = Address set by hex switches
    RTR = 0
    DLC3...DLC0 = 2 databytes received
    DATABYTE1 = COMMAND_SWITCH_BLIND_OFF (H'04')
    DATABYTE2 = Blind channel

Contents	Blind channel
B'00000011'	Blind 1
B'00001100'	Blind 2

'Switch blind up'' command received:
    SID10-SID9 = 00 (highest priority)
    SID8...SID1 = Address set by hex switches
    RTR = 0
    DLC3...DLC0 = 5 databytes received
    DATABYTE1 = COMMAND_BLIND_UP (H'05')
    DATABYTE2 = Blind channel

Contents	Blind channel
B'00000011'	Blind 1
B'00001100'	Blind 2

    DATABYTE3 = high byte of time out
    DATABYTE4 = mid byte of time out
    DATABYTE5 = low byte of time out

    Remark:
    [DATABYTE3][DATABYTE4][DATABYTE5] contain a 24-bit time out in seconds
    If the time parameter contains zero then a time out set by the dip switch on the module is selected.
    If the time parameter contains H'FFFFFF' then the blind up output switches permanently on.

'Switch blind down'' command received:

    SID10-SID9 = 00 (highest priority)
    SID8...SID1 = Address set by hex switches
    RTR = 0
    DLC3...DLC0 = 5 databytes received
    DATABYTE1 = COMMAND_BLIND_DOWN (H'06')
    DATABYTE2 = Blind channel

Contents	Blind channel
B'00000011'	Blind 1
B'00001100'	Blind 2

    DATABYTE3 = high byte of time out
    DATABYTE4 = mid byte of time out
    DATABYTE5 = low byte of time out
    Remark:
    [DATABYTE3][DATABYTE4][DATABYTE5] contain a 24-bit time out in seconds
    If the time parameter contains zero then a time out set by the dip switch on the module is selected.
    If the time parameter contains H'FFFFFF' then the blind down output switches permanently on.

'Blind status request' command received:

    SID10-SID9 = 11 (lowest priority)
    SID8...SID1 = Address set by hex switches
    RTR = 0
    DLC3...DLC0 = 2 databytes received
    DATABYTE1 = COMMAND_BLIND_STATUS_REQUEST (H'FA')
    DATABYTE2 = Blind channel

Contents	Blind channel
B'00000011'	Blind 1
B'00001100'	Blind 2

'Module type request' command received:

    SID10-SID9 = 11 (lowest priority)
    SID8...SID1 = Address set by hex switches
    RTR = 1
    DLC3...DLC0 = 0 databytes received

'Clear LED' command received : (Build 0811 or higher)

    SID10-SID9 = 11 (lowest priority)
    SID8...SID1 = Address of the push button module
    RTR = 0
    DLC3...DLC0 = 2 databytes received
    DATABYTE1 = COMMAND_CLEAR_LED (H'F5')
    DATABYTE2 = LEDs to clear (a one clears the corresponding LED)

'Blind and or push button name request' command received (Build 0815 or higher):

    SID10-SID9 = 11 (lowest priority)
    SID8...SID1 = Address set by hex switches
    RTR = 0
    DLC3...DLC0 = 2 databytes received
    DATABYTE1 = COMMAND_BLIND_NAME_REQUEST (H'EF')
    DATABYTE2 = Blind channel

Contents	Blind
B'00000011'	Blind 1 name request
B'00001100'	Blind 2 name request
B'00010000'	channel 1 local up push button name request
B'00100000'	channel 1 local down push button name request
B'00100000'	channel 2 local up push button name request
B'00100000'	channel 2 local down push button name request

'Read data from memory' command received (Build 0815 or higher):
  SID10-SID9 = 11 (lowest priority)
  SID8...SID1 = Address set by hex switches
  RTR = 0
  DLC3...DLC0 = 3 databytes received
  DATABYTE1 = COMMAND_READ_DATA_FROM_MEMORY (H'FD')
  DATABYTE2 = High memory address (must be H'00' or H'01')
  DATABYTE3 = LOW memory address (H'00'...H'FF')

'Read data block from memory' command received (Build 0742 or higher):
  SID10-SID9 = 11 (lowest priority)
  SID8...SID1 = Address set by hex switches
  RTR = 0
  DLC3...DLC0 = 3 databytes received
  DATABYTE1 = COMMAND_READ_MEMORY_BLOCK (H'C9')
  DATABYTE2 = High memory address (must be H'00' or H'01')
  DATABYTE3 = LOW memory address (H'00'...H'FC')

'Memory dump request' command received (Build 0735 or higher):
  SID10-SID9 = 11 (lowest priority)
  SID8...SID1 = Address of the module
  RTR = 0
  DLC3...DLC0 = 1 databytes received
  DATABYTE1 = COMMAND_MEMORY_DUMP_REQUEST (H'CB')

'Write data to memory' command received (Build 0815 or higher):
  SID10-SID9 = 11 (lowest priority)
  SID8...SID1 = Address set by hex switches
  RTR = 0
  DLC3...DLC0 = 4 databytes received
  DATABYTE1 = COMMAND_WRITE_DATA_TO_MEMORY (H'FC')
  DATABYTE2 = High memory address (must be H'00' or H'01')
  DATABYTE3 = LOW memory address (H'00'...H'FF')
  DATABYTE4 = memory data to write

  Remark:
  Wait at least 10ms before sending a next command on the velbus.
  From build 0720 or higher wait for 'memory data' feedback before sending a next command on the velbus.

'Write memory block' command received: (Build 0742 or higher)
  SID10-SID9 = 11 (lowest priority)
  SID8...SID1 = Address set by hex switches
  RTR = 0
  DLC3...DLC0 = 7 databytes received
  DATABYTE1 = COMMAND_WRITE_MEMORY_BLOCK (H'CA')
  DATABYTE2 = High memory address (must be H'00' or H'01')
  DATABYTE3 = LOW memory address (H'00'...H'FC')
  DATABYTE4 = memory databyte1 to write
  DATABYTE5 = memory databyte2 to write
  DATABYTE6 = memory databyte3 to write
  DATABYTE7 = memory databyte4 to write

  Remark: Wait for 'memory data block' feedback before sending a next command on the velbus.

'Bus error counter status request' command received: (Build 0648 or higher)
  SID10-SID9 = 11 (lowest priority)
  SID8...SID1 = Address set by hex switches
  RTR = 0
  DLC3...DLC0 = 1 databytes to send
  DATABYTE1 = COMMAND_BUS_ERROR_CONTER_STATUS_REQUEST (H'D9')

Memory map (build 0802 or lower):

Address	Contents	Address	Contents
H'0000'	Push button module address	H'0001'	Up push button 1 bit numbers for blind 1
...	...	...	...
H'001A'	Push button module address	H'001B'	Up push button 14 bit numbers for blind 1
H'001C'	Push button module address	H'001D'	Immediately up push button 1 bit numbers for blind 1
...	...	...	...
H'0036'	Push button module address	H'0037'	Immediately up push button 14 bit numbers for blind 1
H'0038'	Push button module address	H'0039'	Down push button 1 bit numbers for blind 1
...	...	...	...
H'0052'	Push button module address	H'0053'	Down push button 14 bit numbers for blind 1
H'0054'	Push button module address	H'0055'	Immediately down push button 1 bit numbers for blind 1
...	...	...	...
H'006E'	Push button module address	H'006F'	Immediately down push button 14 bit numbers for blind 1
H'0070'	Blind 1 name character 1	H'0071'	Blind 1 name character 1
...	...	...	...
H'007E'	Blind 1 name character 15	H'007F'	Blind 1 name character 16
H'0080'	Push button module address	H'0081'	Up push button 1 bit numbers for blind 2
...	...	...	...
H'009A'	Push button module address	H'009B'	Up push button 14 bit numbers for blind 2
H'009C'	Push button module address	H'009D'	Immediately up push button 1 bit numbers for blind 2
...	...	...	...
H'00B6'	Push button module address	H'00B7'	Immediately up push button 14 bit numbers for blind 2
H'00B8'	Push button module address	H'00B9'	Down push button 1 bit numbers for blind 2
...	...	...	...
H'00D2'	Push button module address	H'00D3'	Down push button 14 bit numbers for blind 2
H'00D4'	Push button module address	H'00D5'	Immediately down push button 1 bit numbers for blind 2
...	...	...	...
H'00EE'	Push button module address	H'00EF'	Immediately down push button 14 bit numbers for blind 2
H'00F0'	Blind 2 name character 1	H'00F1'	Blind 2 name character 1
...	...	...	...
H'00FE'	Blind 2 name character 15	H'00FF'	Blind 2 name character 16

Remark: Unused locations contain H'FF'

Memory map (build 0805, 0806, 0811 or 0812):

Address	Contents	Address	Contents
H'0000'	Push button module address	H'0001'	Up push button 1 bit numbers for blind 1
...	...	...	...
H'0014'	Push button module address	H'0015'	Up push button 11 bit numbers for blind 1
H'0016'	Push button module address	H'0017'	Immediately up push button 1 bit numbers for blind 1
...	...	...	...
H'002A'	Push button module address	H'002B'	Immediately up push button 11 bit numbers for blind 1
H'002C'	Push button module address	H'002D'	Down push button 1 bit numbers for blind 1
...	...	...	...
H'0040'	Push button module address	H'0041'	Down push button 11 bit numbers for blind 1
H'0042'	Push button module address	H'0043'	Immediately down push button 1 bit numbers for blind 1
...	...	...	...
H'0056'	Push button module address	H'0057'	Immediately down push button 11 bit numbers for blind 1
H'0058'	Push button module address	H'0059'	Up/down push button 1 bit numbers for blind 1
...	...	...	...
H'006C'	Push button module address	H'006D'	Up/down push button 11 bit numbers for blind 1
H'006E'	Not used	H'006F'	Not used
H'0070'	Blind 1 name character 1	H'0071'	Blind 1 name character 1
...	...	...	...
H'007E'	Blind 1 name character 15	H'007F'	Blind 1 name character 16
H'0080'	Push button module address	H'0081'	Up push button 1 bit numbers for blind 2
...	...	...	...
H'0094'	Push button module address	H'0095'	Up push button 11 bit numbers for blind 2
H'0096'	Push button module address	H'0097'	Immediately up push button 1 bit numbers for blind 2
...	...	...	...
H'00AA'	Push button module address	H'00AB'	Immediately up push button 11 bit numbers for blind 2
H'00AC'	Push button module address	H'00AD'	Down push button 1 bit numbers for blind 2
...	...	...	...
H'00C0'	Push button module address	H'00C1'	Down push button 11 bit numbers for blind 2
H'00C2'	Push button module address	H'00C3'	Immediately down push button 1 bit numbers for blind 2
...	...	...	...
H'00D6'	Push button module address	H'00D7'	Immediately down push button 11 bit numbers for blind 2
H'00D8'	Push button module address	H'00D9'	Up/down push button 1 bit numbers for blind 2
...	...	...	...
H'00EC'	Push button module address	H'00ED'	Up/down push button 11 bit numbers for blind 2
H'00EE'	Not used	H'00EF'	Not used
H'00F0'	Blind 2 name character 1	H'00F1'	Blind 2 name character 1
...	...	...	...
H'00FE'	Blind 2 name character 15	H'00FF'	Blind 2 name character 16

Remark: Unused locations contain H'FF'

Memory map (build 0815 or higher):

Address	Contents	Address	Contents
H'0000'	Push button module address	H'0001'	Up push button 1 bit numbers for blind 1
...	...	...	...
H'0026'	Push button module address	H'0027'	Up push button 20 bit numbers for blind 1
H'0028'	Push button module address	H'0029'	Immediately up push button 1 bit numbers for blind 1
...	...	...	...
H'004E'	Push button module address	H'004F'	Immediately up push button 20 bit numbers for blind 1
H'0050'	Push button module address	H'0051'	Down push button 1 bit numbers for blind 1
...	...	...	...
H'0076'	Push button module address	H'0077'	Down push button 20 bit numbers for blind 1
H'0078'	Push button module address	H'0079'	Immediately down push button 1 bit numbers for blind 1
...	...	...	...
H'009E'	Push button module address	H'009F'	Immediately down push button 20 bit numbers for blind 1
H'00A0'	Push button module address	H'00A1'	Up/down push button 1 bit numbers for blind 1
...	...	...	...
H'00C6'	Push button module address	H'00C7'	Up/down push button 20 bit numbers for blind 1
H'00C8'	Not used	H'00C9'	Not used
...	...	...	...
H'00CE'	Not used	H'00CF'	Not used
H'00D0'	Ch1 local Up Push button name character 1	H'00D1'	Ch1 local Up Push button name character 2
...	...	...	...
H'00DE'	Ch1 local Up Push button name character 15	H'00DF'	Ch1 local Up Push button response time
H'00E0'	Ch1 local Down Push button name character 1	H'00E1'	Ch1 local Down Push button name character 2
...	...	...	...
H'00EE'	Ch1 local Down Push button name character 15	H'00EF'	Ch1 local Down Push button response time
H'00F0'	Blind 1 name character 1	H'00F1'	Blind 1 name character 1
...	...	...	...
H'00FE'	Blind 1 name character 15	H'00FF'	Blind 1 name character 16
H'0100'	Push button module address	H'0101'	Up push button 1 bit numbers for blind 2
...	...	...	...
H'0126'	Push button module address	H'0127'	Up push button 20 bit numbers for blind 2
H'0128'	Push button module address	H'0129'	Immediately up push button 1 bit numbers for blind 2
...	...	...	...
H'014E'	Push button module address	H'014F'	Immediately up push button 20 bit numbers for blind 2
H'0150'	Push button module address	H'0151'	Down push button 1 bit numbers for blind 2
...	...	...	...
H'0176'	Push button module address	H'0177'	Down push button 20 bit numbers for blind 2
H'0178'	Push button module address	H'0179'	Immediately down push button 1 bit numbers for blind 2
...	...	...	...
H'019E'	Push button module address	H'019F'	Immediately down push button 20 bit numbers for blind 2
H'01A0'	Push button module address	H'01A1'	Up/down push button 1 bit numbers for blind 2
...	...	...	...
H'01C6'	Push button module address	H'01C7'	Up/down push button 20 bit numbers for blind 2
H'01C8'	Not used	H'01C9'	Not used
...	...	...	...
H'01CE'	Not used	H'01CF'	Not used
H'01D0'	Ch2 local Up Push button name character 1	H'01D1'	Ch2 local Up Push button name character 2
...	...	...	...
H'01DE'	Ch2 local Up Push button name character 15	H'01DF'	Ch2 local Up Push button response time
H'01E0'	Ch2 local Down Push button name character 1	H'01E1'	Ch2 local Down Push button name character 2
...	...	...	...
H'01EE'	Ch2 local Down Push button name character 15	H'01EF'	Ch2 local Down Push button response time
H'01F0'	Blind 2 name character 1	H'01F1'	Blind 2 name character 1
...	...	...	...
H'01FE'	Blind 2 name character 15	H'01FF'	Blind 2 name character 16

Remark: Unused locations contain H'FF'