ALYA VT200

ALYA VT200 communication protocol

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Supported device types and versions

This protocol enables the reading of the weighted values from the VT200 scale produced by ALYA Poprad. In addition to reading net weight and tare, it enables reading characters from the keyboard, reading of EAN-codes, and controlling the built-in monochromatic LCD display with a resolution of 240x64 pixels.

Communication line configuration

- Category of communication line: TCP/IP-UDP
- Parameters of a UDP line:
  - Host: IP address of a scale configured in the parameters of a scale
  - Port: the UDP port of a scale where requests are sent. The default value (according to the documentation) is 3396.

Note: The parameters of the backup server (Host and Port) are not used in this protocol.

Communication station configuration

- Communication protocol: **ALYA VT200**.
- The address of the station is irrelevant and does not need to be defined. Only one station may be configured on one line.

Station protocol parameters

Keyword	Full name	Meaning	Unit	Default value
LP	Local Port	The UDP port where the D2000 KOM awaits responses from the scale. Permitted values are in the range 1-65535.	-	3396
DT	Data Timeout	Timeout for receiving a response from the scale when the D2000 KOM process sends a request.	sec. mss	0.500
ND	No Delete	Setting the value to True will cause the D2000 KOM process not to send buffer delete requests during the reading of keystrokes and barcodes. The parameter is useful only during tuning of communication.	-	False

I/O tag configuration

I/O tag address	I/O tag type	Meaning
NETTO	Ai	Net weight in kg. **Note:** If a scale reports the unsteady status (see I/O tag STEADY), the I/O tag will be *Invalid*.
TARA	Ai	Tare in kg. **Note:** If a scale reports the unsteady status (see I/O tag STEADY), the I/O tag will be *Invalid*.
STEADY	Di	Information on whether a scale status is steady (True) or unsteady (False).
ZERO	Di	Information on whether a scale shows zero weight (True) or not (False).
RANGE	Ci	Scale range: 0, 1 or 2 according to the EN 45510 standard
KEYCODE	TxtI	Keystroke(s) read from the keyboard. **Note:** After reading keystroke(s) from a keyboard, they are deleted from a keyboard buffer so that during the next reading from the scale, this I/O tag is set to *Invalid* (unless the ND parameter is set). Therefore, it is necessary to handle keystrokes within an ESL script.

BARCODE	TxtI	EAN-code read from a bar-code reader. **Note:** After reading a bar-code from a bar-code reader, it is deleted from the reader so that during the next reading from the scale, this I/O tag is set to *Invalid* (unless the ND parameter is set). Therefore, it is necessary to handle bar-codes within an ESL script.
DISPLAY	TxtO	The I/O tag that is used for communication with a monochromatic display on the scale. The string must consist of binary data in the format which is defined in the manual from a producer. The message format is <XH><XL><YH><YL><WH><WL><HH><HL><data>, where: • XH - high byte for X-axis (binary) • XL - low byte for X-axis (binary) • YH - high byte for Y-axis (binary) • YL - low byte for Y-axis (binary) • WH -high byte for the width of bitmap (binary) • WL - low byte for the width of bitmap (binary) • HH - high byte for the height of bitmap (binary) • HL - low byte for the height of bitmap (binary) • data - binary data of the bitmap **Notes:** • *X-axis* and *bitmap width* must be divisible by 8. • Coordinates of the upper left corner of the display are X=0, Y=0. Coordinates of the lower right corner of the display are X=239, Y=63. • One byte of data describes a group of eight pixels in one line of the display. So, from the coordinates (0,0) to (7,0) one byte is required, the highest bit of which describes a pixel (0,0) and the lowest bit a pixel (7,0). • The whole display can be described by (240/8) * 64 = 1920 bytes. However, the maximum length of the UDP packet is 1500 bytes, i.e. if the whole display must be redrawn, it is necessary to send more requests (e.g. the first half of the display and the second half of the display).

Literature

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Changes and modifications

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Document revisions

- Ver. 1.0 – July 14, 2015 – the creation of the document

Related pages:

Communication protocols