

# ALYA VT200

## ALYA VT200 communication protocol

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### Supported device types and versions

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

### Communication line configuration

- Category of communication line: **TCP/IP-UDP**
  - Parameters of UDP line:
    - Host: IP address of scale configured in the parameters of scale
    - Port: UDP port of scale where requests are send. Default value (according to the documentation) is 3396.
- Note:** The parameters of backup server (Host and Port) are not used in this protocol.

### Communication station configuration

- Communication protocol: **ALYA VT200**.
- Address of station is irrelevant and need not be defined. Only one station may be configured on one line.

### Station protocol parameters

Key word	Full name	Meaning	Unit	Default value
LP	Local Port	UDP port where KOM awaits responses from the scale. Permitted values are in range 1-65535.	-	3396
DT	Data Timeout	Timeout receiving message from scale on call from KOM process.	sec. mss	0.500
ND	No Delete	Setting value to True will cause KOM process not to send buffer delete requests during reading of keystrokes and barcodes. 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. <b>Note:</b> If a scale reports the unsteady status (see I/O tag <a href="#">STEADY</a> ), I/O tag will be <i>Invalid</i> .
TARA	Ai	Tare in kg. <b>Note:</b> If a scale reports the unsteady status (see I/O tag <a href="#">STEADY</a> ), I/O tag will be <i>Invalid</i> .
STEADY	Di	Information whether a scale is steady (True) or not yet (False).
ZERO	Di	Information whether a scale shows null weight (True) or not (False).
RANGE	Ci	Scale range: 0, 1 or 2 according to the standard EN 45510
KEYCODE	TxtI	Keystroke(s) read from keyboard. <b>Note:</b> After reading keystroke(s) from a keyboard, they are deleted from a keyboard buffer so that during next reading from scale, this I/O tag is set to <i>Invalid</i> (unless parameter <a href="#">ND</a> is set). Therefore, it is necessary to handle keystrokes within ESL script.
BARCODE	TxtI	EAN-code read from a bar-code reader. <b>Note:</b> After reading bar-code from a bar-code reader, it is deleted from the reader so that during next reading from scale, this I/O tag is set to <i>Invalid</i> (unless parameter <a href="#">ND</a> is set). Therefore, it is necessary to handle bar-codes within ESL script.

DISPLAY	TxtO	<p>I/O tag that is used for communication with monochromatic display on scale. The string must consist of binary data in the format which is stated in the manual from a producer. Message format is &lt;XH&gt;&amp;lt;XL&gt;&amp;lt;YH&gt;&amp;lt;YL&gt;&amp;lt;WH&gt;&amp;lt;WL&gt;&amp;lt;HH&gt;&amp;lt;HL&gt;&amp;lt;data&gt;, where:</p> <ul style="list-style-type: none"><li>• XH - high byte for X axis (binary)</li><li>• XL - low byte for X axis (binary)</li><li>• YH - high byte for Y axis (binary)</li><li>• YL - low byte for Y axis (binary)</li><li>• WH -high byte for width of bitmap (binary)</li><li>• WL - low byte for width of bitmap (binary)</li><li>• HH - high byte for height of bitmap (binary)</li><li>• HL - low byte for height of bitmap (binary)</li><li>• data - binary data of bitmap</li></ul> <p><b>Notes:</b></p> <ul style="list-style-type: none"><li>• X axis and bitmap width must be divisible by 8.</li><li>• Axes of upper left corner of display are X=0, Y=0. Axes of lower right corner of display are X=239, Y=63.</li><li>• One byte of data describes group of eight pixels in one line of display. So, from the axis (0,0) to (7,0) there is necessary one byte, the highest bit of which is described by a pixel (0,0) and the lowest bit by a pixel (7,0).</li><li>• All display can be described by <math>(240/8) * 64 = 1920</math> bytes. But, maximum length of UDP packet is 1500 bytes, i.e. if whole display must be redrawn, it is necessary to send more queries (e.g. first half of display and second half of display).</li></ul>
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## Literature

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## Changes and modifications

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## Document revisions

- Ver. 1.0 – July 14, 2015 – created document

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