

Application Note: 5000 Custom Auto strings A&D and Gedge

Application:

The 5000 Indicator supports multiple standard output strings that can also be customised in the case where the PC or remote that it has to connect to requires a different format. This custom format string can be defined to suit the format of another manufactures indicator.

The following pages are sample setups for a 5000 indicator to simulate certain strings. Note the baud and bit settings have to be set to suit the application - Gedge and A&D are different from the Rinstrum standard of 9600 baud, No Parity, 8 data bits and 1 stop bit, refer to the manuals for details. Details regarding these format tokens, ASCII tables, serial hardware and general serial setup will be found the 5000 reference manual.

A&D standard string:

A&D Stream String:

<HDR1>,<HDR2>,SWWWWWWU<CR><LF>

HDR1 = Header 1 – OL (over/under load), ST (stable) or US (unstable)

HDR2 = Header 2 – GS (Gross mode), NT (Net mode) or TR (tare data)

(Note TR not supported in R420 main display switching, only as a fixed output)

< , > = comma 2CHEX

S = Sign either + or -

W = 7 Character weight data including the decimal point. If no decimal point then last character is a period. Data sent with leading zero's.

5000 String for A&D stream:

ASCII: 182,187,222,044,213,083,044,201,032,116,000
Start CHAR1 000, End CHAR1 013 and End CHAR2 010.

NOTE:

(1) The 5000 does not have a direct token for GS, NT and TR so as the weight sent will only be Gross or Net then the token 213 will show G or N according to the displayed weight. In this example the next character is fixed to S (083), refer to ASCII table if a change of the fixed char is required.

(2) Due to the format of A&D units been two digit and Rinstrum units three digits the units transmitted have to be entered manually in the string. Most remotes will ignore the units but some PC software will require it. 032,116 will transmit <SPC>t for units of t. use the following for other types of displayed units 107,103 for kg or 105,098 for lb other unit types refer to ASCII table.

Gedge:

Gedge C1 string:

<STX>WWWWWWWW<ETX>

<STX> = start character 02HEX

W = these eight characters can include a decimal point and a leading minus sign.

E.g. (00000300) with leading zeroes would represent 300 units.

(00003.00) is another acceptable string, this time with a decimal point instead of one of the characters.

(-0003.00) Here we have the weight with the sign attached.

<ETX> = end character 03HEX

5000 string for C1 format;

ASCII: 187,183,201,000

Start CHAR1 002, End CHAR1 003 and End CHAR2 000.

Gedge C2 string:

<STX>WWWWWWWW<S1><S2><S3><S4><SPC><SPC><ETX>

<STX> = as for C1 string

W = as for C1 string

S1 = Can be G or N to indicate Gross or Net respectively T (tare) not supported by 5000.

S2 = Can be M or S to indicate Motion or Stable respectively.

S3 = Can be I, O or U to indicate In scale, Over range or Under range respectively.

S4 = Set to Z representing gross zero or a space to represent not gross zero.

<SPC> = Space character (ASCII 20H).

<ETX> = as for C1 string

R420 string for C2 format;

ASCII: 187,183,201,213,215,219,220,032,032,000

Start CHAR1 002, End CHAR1 003 and End CHAR2 000.

Gedge C3 string:

<STX>GGGGGGGGTTTTTTTTNNNNNNNN<S1><S2><S3><S4><SPC><SPC><ETX>

<STX> = as for C1 string

G = Gross weight (format as per W in C1)

T = Tare weight (format as per W in C1)

N = Net weight (format as per W in C1)

S1 = Can be G or N to indicate Gross or Net respectively T (tare) not supported by 5000.

S2 = Can be M or S to indicate Motion or Stable respectively.

S3 = Can be I, O or U to indicate In scale, Over range or Under range respectively.

S4 = Set to Z representing gross zero or a space to represent not gross zero.

<SPC> = Space character (ASCII 20H).

<ETX> = as for C1 string

R420 string for C3 format;

ASCII: 187,183,202,204,203,213,215,219,220,032,032,000

Start CHAR1 002, End CHAR1 003 and End CHAR2 000.

For more information refer to the Reference Manual for this product