Ello. this paper is in English, because it's easier to write it that way.

Here I need your input on which method of displaying the numbers will we use. I think using a lcd with a backlight will look good but normal led 7 segments are also possible.

Here I found different layouts of lcds. All of them are from Display Elektronik supplied through tme.

First, lcds are made in 3 variants
- transmissive - needs a backlight
- reflective - needs external light (ex. sunlight)
- transflective - best of both worlds

Transmissive (M)

- Wide viewing angles
- Good visibility in the dark
- Bad in bright places
- Needs a backlight

Reflective (R)

- Like transmissive but has a mirror behind it (basically)
- Good in bright places
- Narrow viewing angle

Transflective (T)

- Like reflective but the “mirror” can have a backlight
- Has the positive features of the two other ones

These lcds also have a standard (S) or highstable (U) polarizer. I didn’t find what that means, but I guess that the display needs pull-ups. These should work on either 3 or 5V

First the “ctd & ctu” project

We need to display 5 numbers in this layout:

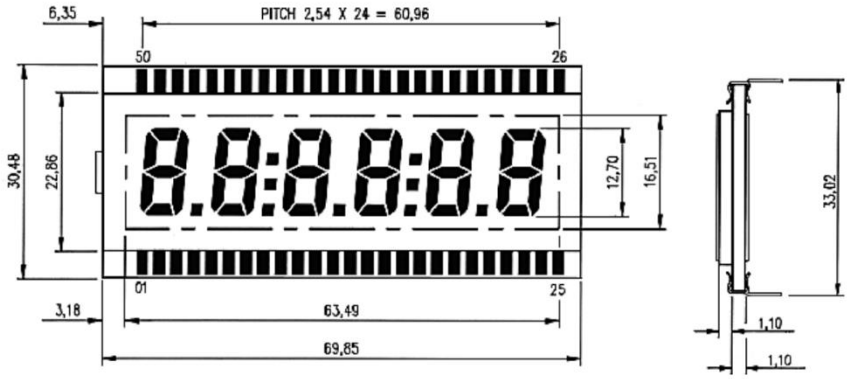
8:88.88

1st digit will display minutes, the 2nd and 3rd are for seconds, and the last 2 are for milliseconds.

I found these display series that could work

DE 122 – SERIES ***Product Specification***

4. MECHANICAL SPECIFICATIONS



DE 122

- character height is 12.70mm

- RS; TU

DE 126 – SERIES Product Specification

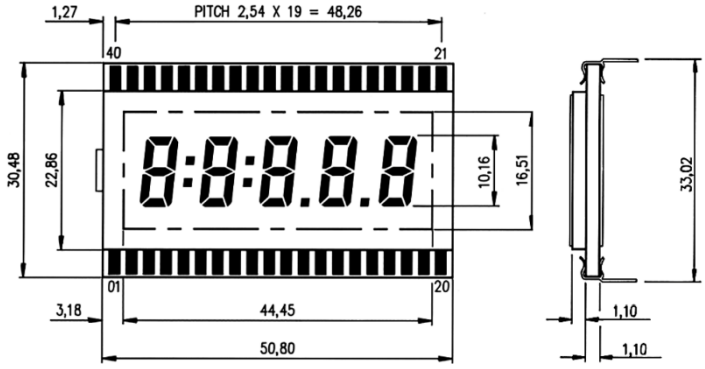
4. MECHANICAL SPECIFICATIONS

DE 126

- character height is 8.89mm
- RS

DE 129 – SERIES Product Specification

4. MECHANICAL SPECIFICATIONS

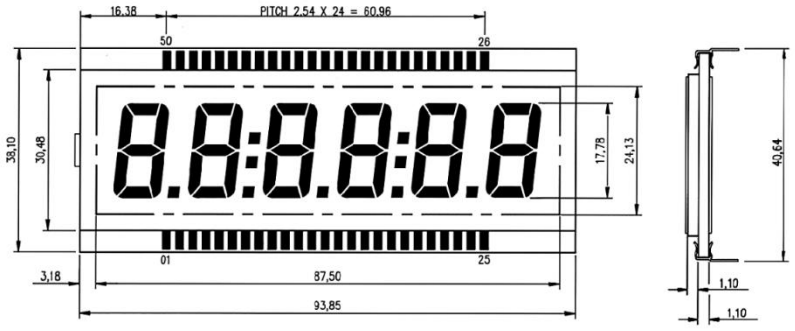


DE 129

- character height is 10.16mm
- RS

DE 132 – SERIES Product Specification

4. MECHANICAL SPECIFICATIONS

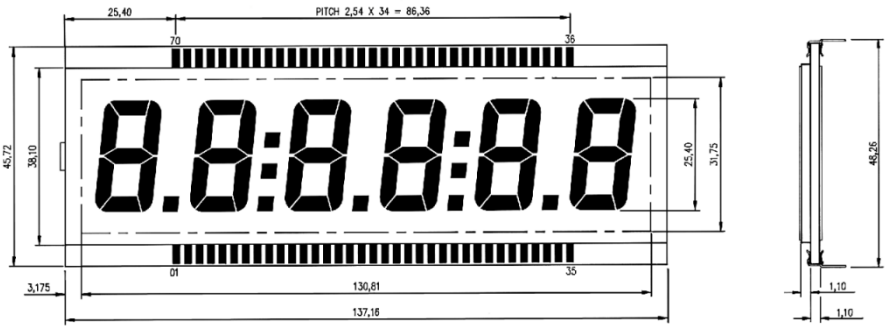


DE 132

- character height is 17.78mm
- RS

DE 156 – SERIES Product Specification

4. MECHANICAL SPECIFICATIONS

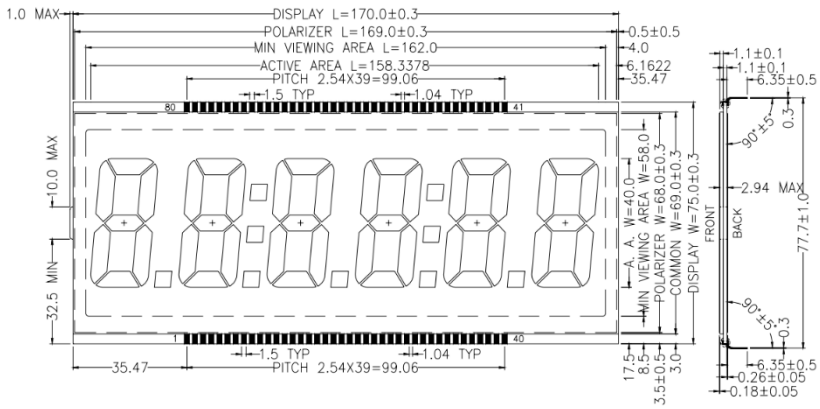


DE 156

- character height is 25.40mm
- RU, TU

DE 336 – SERIES **Product Specification**

4. MECHANICAL SPECIFICATIONS

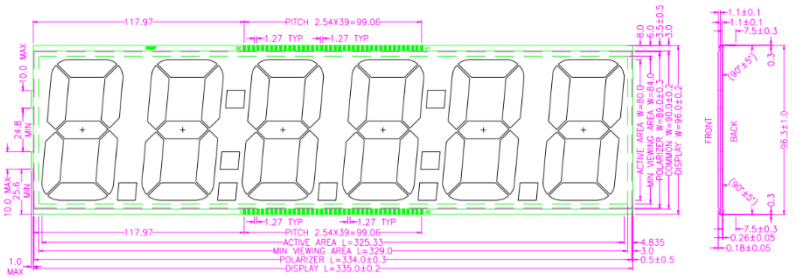


DE 336

- character height is 40.0mm
- RU, TU

DE 337 – SERIES **Product Specification**

4. MECHANICAL SPECIFICATIONS



DE 337

- character height is 80.0mm
- RU, TU

I would probably use the DE 156 TU (13.20usd) or the DE 336 TU (special orders only)

Second the “ctu button” project

This needs either 2 displays or all numbers on one:

88.88 888

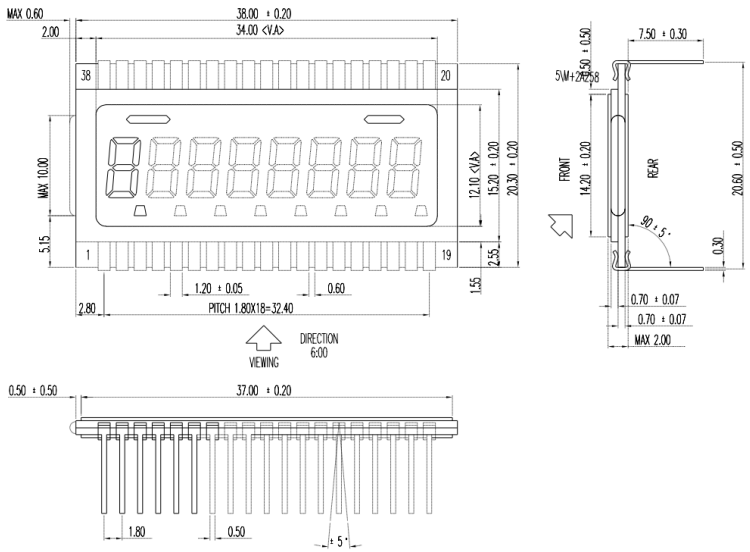
Seconds and millis, and the count. 3 digits are maybe a bit overkill but it works out nicely to 8 chars with one to spare as a separator

I think that the right choice would be just one display

DE 124 – SERIES **Product Specification**

4. MECHANICAL SPECIFICATIONS

4.1 Pin-Version:



DE 124

- character height is 6.00mm
- RS

DE 125 – SERIES *Product Specification*

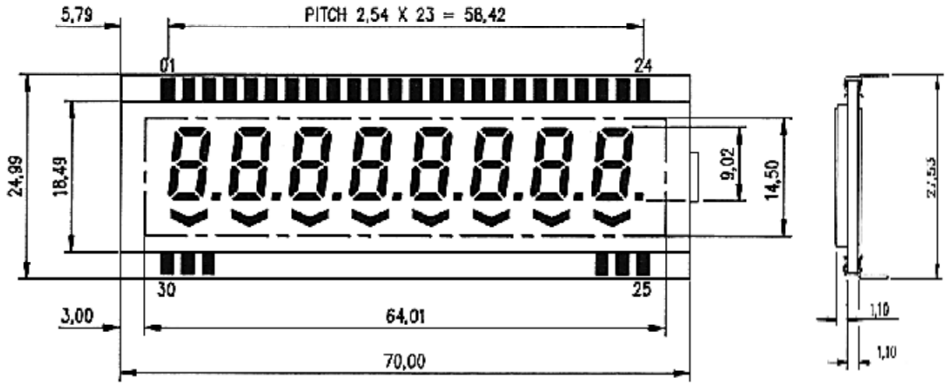
4. MECHANICAL SPECIFICATIONS

DE 125

- character height is 12.70mm
- RS, TU

DE 133 – SERIES *Product Specification*

4. MECHANICAL SPECIFICATIONS



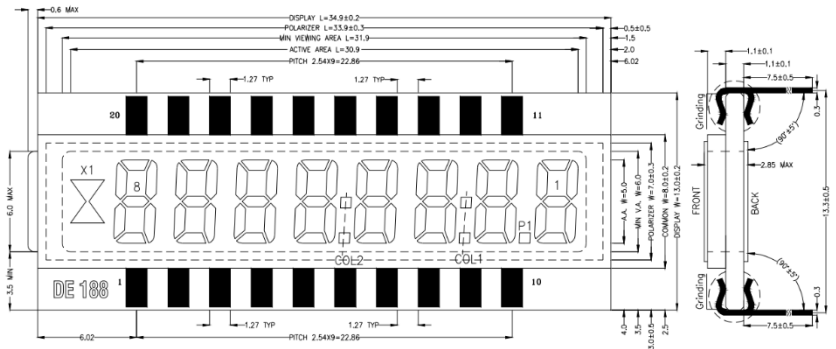
DE 133

- character height is 9.02mm
- RS

DE 188 – SERIES *Product Specification*

4. MECHANICAL SPECIFICATIONS

4.1 DRAWINGS:



UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN MM
TOLERANCES:±0.2MM

DE 188

- character height is 5.0mm
- RU

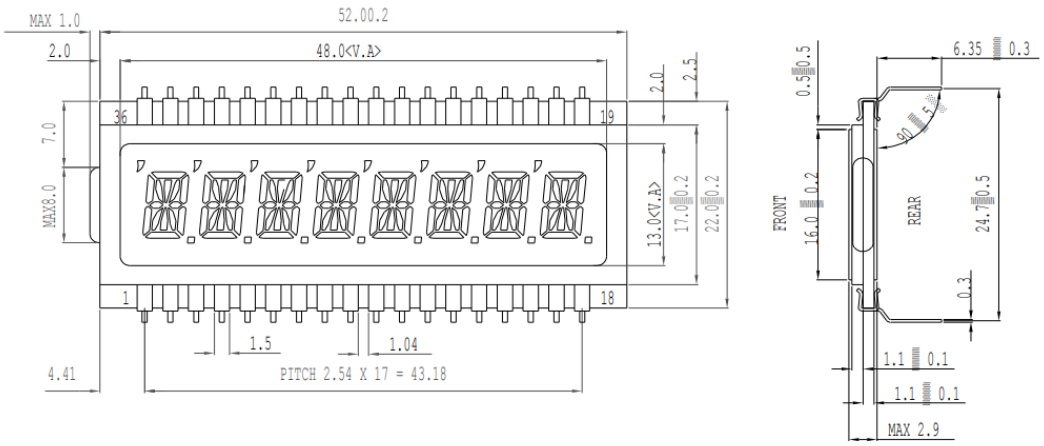
DE 301 – SERIES Product Specification

4. MECHANICAL SPECIFICATIONS

DE 301

- character height is 7.1mm (aprox'd)

- RS, TU



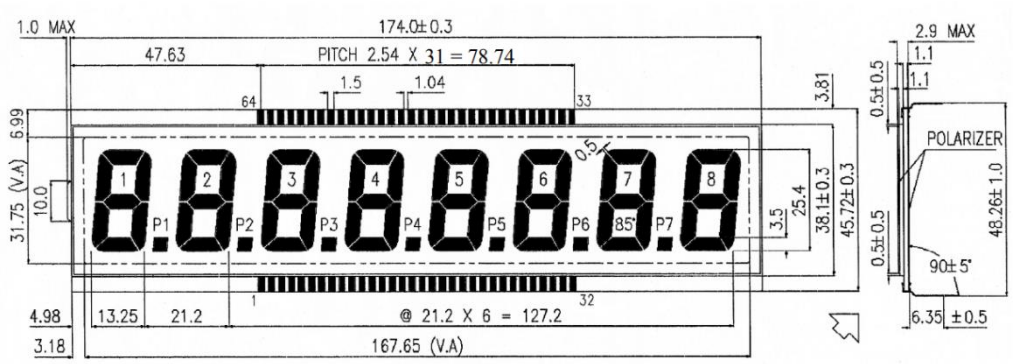
DE 335 – SERIES Product Specification

4. MECHANICAL SPECIFICATIONS

DE 335

- character height is 25.4mm

- RU, TU



I'd go with the DE 335 TU (16.30usd), because the chars are big enough and it's just perfect for what we want

The two display options are here

88.88					
117		8.8.	8.	8	6.8
118	+	8.8[:.]	8.	8	8.00
119		8.8[:.]	8.	8	12.70
120		8.8[:.]	8.	8	17.78
127		8.8[:.]	8.	8	8.89
129		8:8:	8.	8.8	10.16
130		8.8.	8[:.]	8.8	17.78
152		8.8[:.]	8.	8	16.52
158		8.8[:.]	8.	8	25.40
161		8.8.	8.	8	12.3(aprox'd)
888					
123	8.8.8				8.89
(or any of the "88.88")					

but normal led 7segments are also an option, these just look good. (or maybe mixies/VFDs if we want to have cute portable high voltage cubes of death)

thank you for reading this - Natani :3