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## MTBF Figures for INTUITIVE Series of Digital Panel Meters

### Background:

The MTBF of this family is mainly affected by temperature, being less at higher ambient temperatures.

This is mainly due to accelerated ageing of electrolytic capacitors as temperature increases.

Therefore, to derive the optimum reliability we recommend operating the displays in an environment where the ambient temperature around the meter can be limited to no more than 50C, ideally between 10 to 30C

If the meter is enclosed in a cabinet containing other equipment, the internal temperature may be many degrees higher than the ambient temperature outside the cabinet, so you will need to take the internal cabinet temperature into account, not the outside ambient temperature.


We have calculated MTBF assuming all possible options have been installed in the meter, all operating at maximum power dissipation (all relays energised, analogue output feeding into a Zero-Ohm load, excitation supply fully loaded to its rated current capacity, RS485 transmitting at high baud rate into 32 loads) to give realistic worst-case guidance.

Figures are for use at altitude less than 2500 m.

Water vapour condensation has not been included in these calculations due to its unpredictable effect. The installation must be designed to prevent the possibility of water condensation within the meters.

Temperature around the meter	MTBF (hours)	MTBF (years)
0C	92 000	10.5
10C	95 000	10.8
20C	95 000	10.8
30C	92 000	10.5
40C	90 000	10.25
50C	85 000	9.7




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