DIGITAL CHRONOMETER

TYPE CM30 SWISSCHRONO

GENERAL

The **THOMMEN** CM30 is a Swiss Made precision, multi-functional chronometer designed to operate under the most stringent operating conditions in civil and military aircraft. The CM30 is designed according the latest civil and military avionics standards. It features a three line display with light digits on dark background (negative image).

It supports the simultaneous indication of a combination of clock- and timer-function readings and has several day/night mode backlight options including NVIS A and B compatibility. The time base is supplied by a dedicated internal power reserve to provide the timekeeping function even when the aircraft power is removed.

FEATURES

- 24 hour clock for UTC or Local Time (LT)
- Maintenance Timer (MTH) accessible via serial interface
- Simultaneous display of clock, elapsed and fl ight time readings
- UTC adapted to synchronization via GPS using SynxT adaptor
- Flight Timer (FT) with automatic or manual mode selectable
- Elapsed Timer (ET) with split time function
- Flight Timer (FT and MTH) remotely controlled by a configurable switch input
- Remote setting functions via serial link (RS-232) in master and slave mode
- Installer accessible installation feature settings
- Installer customizable Lighting Dimming Curve for day and night mode
- Lighting options (white/white, white/red, white/green NVIS A&B)
- Comprehensive Built In Test with internal maintenance and failure log

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THOMMEN AIRCRAFT EQUIPMENT

PERFORMANCE SPECIFICATION

TIME BASE ACCURACY:	better than ± 0.2 s / 24 h
MTBF:	> 20.000 hrs. MIL-HDBK-217
LIGHTING OPTIONS FOR NVIS EQUIPMENT COMPATIBILITY:	MIL-STD-3009 TYPE I CLASS B or RTCA/DO-275 or OST 1 00415-81

ELECTRICAL CHARACTERISTICS

SUPPLY POWER:	Nominal 14 or 28 VDC < 300 mA @ 28 VDC
LIGHTING CONTROL INPUT SIGNAL (CENTRAL INSTRUMENT PANEL DIMMING LEVEL SIGNAL):	0-5 / 0-14 / 0-28 VDC < 5mA 0-5 / 0-14 / 0-28 VAC @ 400Hz < 5mA 5 / 14 / 28 VDC PWM < 5mA
LIGHTING MODE INPUT SIGNAL (CENTRAL INSTRUMENT PANEL DIMMING MODE SIGNAL):	0 to Supply Power Voltage sinks < 5 mA against power return
FT & MTH RUN SIGNAL:	0 to Supply Power Voltage sinks < 5 mA against power return

ENVIRONMENTAL CONDITIONS

TEMPERATURE:	-55° C to +85° C ground survival and storage -45° C to +70° C continuous operational further options are available on request
COOLING:	none
ALTITUDE:	55.000 ft. for continuous operational and storage further options are available on request
HUMIDITY:	< 99% rel. humidity non condensing for continuous operational and storage

QUALIFICATIONS

RTCA/DO-160F:	[B2Z]BBB[U2]EWFSFSY[ZI]AZ[ZC](ZN)[RR]M[A3H33]XXAC
MIL-STD-810F:	Method 514.5 Method 505.4 Procedure I
RTCA/DO-178B:	Software Level D
RTCA/DO-254:	DAL D

MECHANICAL CHARACTERISTICS

FORM FACTOR:	2" Semi ARINC housing L 62.0 mm (2.441 in) x W 60.3 mm (2.375 in) x H 60.3 mm (2.375 in)
WEIGHT:	210 grams (7.4 oz.)
COLOUR:	FED-STD-595 Housing black (37038) or grey (36118) Markings white (37875)
INSTALLATION:	Semi ARINC Housing installs using a metal mounting clamp e.g. USP64296 or Aeroequip 52984 Connector Amphenol 71-570123-12-10 mates with MS3116E12-10S

MECHANICAL DRAWING