

GENERAL DESCRIPTION

THE MASTER CLOCK WAS DESIGNED FOR DISPLAYING INTEGRATED TIME AND DATE (UTC AND LT). THE MASTER CLOCK CONTROLS ANALOGUE OR DIGITAL SECONDARY CLOCKS USING PRECISE IMPULSES AND SIGNALS. INTERNAL INTERFACES WITH VARIOUS STANDARDS FACILITATE THE COMMUNICATION WITH ALL COMMON COMPUTER SYSTEMS.

TECHNICAL DATA	
HOUSING:	PLASTIC RAL 7035 (OPTIONALLY ANY OTHER TYPE OF LACQUERING IN RAL COLOURS POSSIBLE), IP54, FOR WALL- OR FLUSH-MOUNTING AND AS 19" RACK UNIT.
DIMENSIONS:	WALL-MOUNTING HOUSING INCL. TERMINAL STRIP: WIDTH 257 MM, HEIGHT 217 MM, DEPTH 125 MM FLUSH-MOUNTING HOUSING INCL. FRONT PANEL: WIDTH 257 MM, HEIGHT 155 MM, TOTAL DEPTH INCL. TERMINAL STRIP 142 MM.
WEIGHT:	WALL-MOUNTING HOUSING: 2.7 KG FLUSH-MOUNTING HOUSING: 2.2 KG
CONNECTORS:	48-POLE TERMINAL-STRIP IN THE LOWER PART OF THE HOUSING, CABLE-INLET WITH VG-TECHNOLOGY
TECHNOLOGY:	PROCESSOR CONTROLLED C-MOS
DISPLAY:	ALPHANUMERICAL LC-DISPLAY, 12 MM DIGIT HEIGHT, 20 DIGITS. LOCAL TIME AND DATE OR UTC CAN BE CHOSEN TO BE DISPLAYED. ALL OTHER FUNCTIONS FOR SETTING AND CONFIGURATION OF THE CLOCK ARE OPERATED BY A MENU-SYSTEM. THE DISPLAY ILLUMINATION CAN BE SWITCHED ON/OFF.
OSCILLATOR:	QUARTZ CONTROLLED, TEMPERATURE COMPENSATED QUARTZ, 0.05 SEC/24 HOURS
POWER SUPPLY:	24 V DC, POWER CONSUMPTION 300 mA (WITHOUT SECONDARY CLOCKS), MAX. 6 HOURS EMERGENCY BACKUP PROTECTION OF INTERNAL FUNCTIONS. A 12V (0.7 AH) BATTERY PROVIDES 4 HOURS OF CONTINUOUS OPERATION. WHEN THE POWER RETURNS, THE ANALOGUE AND DIGITAL CLOCKS ARE ADJUSTED AUTOMATICALLY.
ERROR:	OCCURRENCE OF ERRORS, SUCH AS POWER FAILURE, LOW VOLTAGE OR MESSAGES RELATING TO OTHER DEFECTS ARE SHOWN ON THE DISPLAY.
SECONDARY CLOCKS:	ALL CURRENT 12/24V SECONDARY CLOCK-SYSTEMS, RUNNING FORWARD AND FORWARD/BACKWARD CAN BE CONNECTED. THE MASTER CLOCK CAN SUPPLY 100 FORWARDS OR 50 FORWARDS/BACKWARDS ANALOGUE SECONDARY CLOCKS. DIGITAL SECONDARY CLOCKS CAN BE RUN VIA AN INTERNAL BCD-CODE.
INTERFACES:	SERIAL INTERFACE RS 485 WITH A STANDARD-PROTOCOL OR OTHER INDIVIDUAL PROTOCOLS. GPS-INTERFACE RS 422 AND PPS-INPUT FOR SYNCHRONIZATION BY MEANS OF AN EXTERNAL GPS-RECEIVER. 2 RELAY OUTPUTS MAX. 125V / 0.5A FOR THE ALARM. THE SYSTEM CAN BE MONITORED FOR POWER FAILURE, FALSE OR MISSING SIGNAL INPUTS, LOW VOLTAGE ETC. THE REQUIRED TYPE OF MONITORING CAN BE SELECTED BY USING THE MENU SYSTEM.
TIME SETTING:	CAN BE DONE USING STEPS OF ONE MINUTE OR PROGRAMMED STEPS BETWEEN 1 - 99 MINUTES. DIRECT TIME SETTING IS PROTECTED BY THE MENU SAFETY OPTIONS. ALL SYSTEM SETTINGS ARE ACCESSIBLE ONLY BY USING A NUMERICAL CODE.
DIGITAL SECONDARY CLOCKS:	DIGITAL SECONDARY CLOCKS RUN WITH AN INTERNAL BCD-CODE. THESE SECONDARY CLOCKS REQUIRE 24 V POWER.
ADDITIONAL INTERFACES:	INTERFACES OTHER THAN STANDARD CAN BE MADE USING NEW CARDS.
MOBALINE:	IS A NEW TIME BUS-SYSTEM FOR SELF ADJUSTING SECONDARY CLOCKS. POWER SUPPLY AND DATA TRANSFER IS PROVIDED BY TWO-CORE WIRE BY MEANS OF AN AMPLITUDE-/FREQUENCY MODULATION WITH A VERY LOW FREQUENCY, THE TRANSMISSION IS SAFE AND FREE OF INTERFERENCE. EVERY SECONDARY CLOCK DECODES THE RECEIVED TIME SIGNAL AND ADJUSTS IT ACCORDINGLY. TIME SETTINGS ARE RECOGNIZED AND ADAPTED IMMEDIATELY. INSTALLATION AND MAINTENANCE TIME IS REDUCED TO A MINIMUM AND THE SECONDARY CLOCKS ARE PROMPTLY SYNCHRONIZED. THE INSTALLATION OF ADDITIONAL SECONDARY CLOCKS IS VERY EASY DUE TO THE BUS-WIRE SYSTEM AND THE AUTOMATIC ADJUSTMENT.



TT-Line – Nils Holgersson



BC Ferries - Coastal Celebration