

In- and Outdoor Digital Clock

ECO-M-DSC Series



Digital clock of contemporary design and slim appearance. General-purpose digital clock, intended particularly to be used outdoors. The clock meets the requirements of the majority of conventional applications. 7segment display of high luminance LED for excellent readability for up to 130 m distance from various angles of view even on direct sunshine. The following features complete the range of this outdoor digital clock:

Basic properties

- Digit height of 100, 180, 250 or 320 mm, which corresponds to readability distance of 40, 70, 100, 130 m
- Digits in red
- Manual or automatic adjustment of the luminosity of LED displays
- Front side glass with dark filter and antiglare surface for improved readability
- Single sided design for wall mounting, single and double sided design for ceiling suspension mounting
- Clock housing made of powder coated metal sheets, RAL9005 colour (black) as standard, any other RAL colour on request
- Adjustment of clock parameters using two pushbuttons inside of the clock (behind the cover) or through remote controller
- Autonomous TCXO time base, with the possibility of synchronisation using DCF 77, Active DCF or MOBALine; IRIG-B, GPS, NTP (PoE or mains powered) as option
- NTP multicast or unicast synchronization in Ethernet network
- Mains powered, DC powering on request
- Protection degree IP 65

The clock

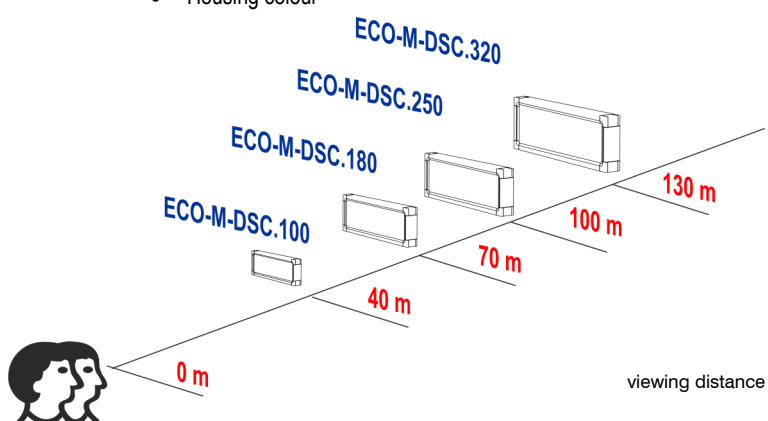
- Display of time values (either 12 or 24 hours time cycle), four digits (HH:MM) or six digits (HH:MM:SS) format
- Display of calendar date in four or six digits format, (DD.MM or DD.MM.YY)
- Possibility of leading zero suppression when displaying the time and date
- Alternating indication of time and date, with adjustable period of each of the displayed data
- Possibility of setting up the time zone

Accessories

- DCF / GPS receiver
- Magnetic GPS antenna
- Remote IR controller

On request

- Housing colour



Operation

- Setting of clock parameters and time - date setting using two pushbuttons inside of the clock or through remote controller
- Powered from mains with wide input voltage range 100-240VAC, optionally from 24 VDC
- For some models available powering by PoE (IEEE 802.3af) or PoE+ (IEEE 802.3at)

Synchronization types

- DCF 77
- Active DCF
- MOBALine
- NTP (PoE over mains powered)
- GPS
- IRIG-B
- Temperature compensated RTC backup by means of lithium battery

For NTP and PoE version only:

- DHCP / manual configuration of the clock parameters or setting over the telnet
- Private options of DHCP string for automatic configuration of all clock parameters when connected to network
- Configuration and monitoring using MOBA-NMS software or SNMP
- Firmware update remotely through the network using the TFTP protocol
- IPv6 ready

Order reference ECO-M-DSC clock

ECO-M-DSC • 1 • 2 • 3 • 4 • 5 • 6 • 7 • 8

1	Height of the digits	
	100 mm	100 / 100x
	180 mm	180 / 180x
	250 mm	250 / 250x
	320 mm	320 / 320x

2	Number of digits	
	four digits clock	4
	six digits clock	6

3	Display colour	
	red	R

4	Version	
	single sided	N
	double sided	D

5	Mounting	
	wall mounting (for single sided clock only)	N
	ceiling suspension	S

6	Synchronisation	
	standard version - DCF 77, Active DCF, MOBALine	STD
	IRIG-B interface	IRIG
	Ethernet version, synchronized by NTP, 230VAC powered	NTP
	Ethernet version, synchronized by NTP and PoE powered	PoE
	Ethernet version, synchronized by NTP and PoE+ powered	PoE+
	integrated GPS receiver with external magnetic antenna	GPS

7	Colour of housing	
	housing painted in black colour	RAL9005
	housing colour, on request	RALxxxx

8	Accessories	
	DCF 77 radio receiver	AD 650
	IR remote control unit	IR
	magnetic GPS antenna, cable 5m (for GPS version included)	ANT
	GPS 4500 receiver	GPS 4500



Example:

[ECO-M-DSC.180.4.R.D.S](#)

Digital clock, height of digits 180 mm, four digits, red display, double sided, ceiling suspension, black case.

Typical applications of ECO-M-DSC clock

- information about the time and date in the outdoors - the square, crossroads, railway stations, stadiums, highways
- information about the time and date in the interior - the airport and the railway station halls, auditoriums, meeting rooms, glassed-in hall and lobbies
- information about the departure of trams, cable cars, trains in smaller stations

Specifications		ECO-M-DSC.100.4	ECO-M-DSC.100x.6	ECO-M-DSC.180.4	ECO-M-DSC.180x.6	ECO-M-DSC.250.4	ECO-M-DSC.250x.6	ECO-M-DSC.320.4
Display	digit height [mm]	100	100	180	180	250	250	320
	number of digits	4	6	4	6	4	6	4
Time display format	HH : MM	✓		✓		✓		✓
	HH : MM : SS		✓		✓		✓	
Date display format	DD. MM.	✓		✓		✓		✓
	DD. MM. YY		✓		✓		✓	
Reading distance up to [m]		40		70		100		130
Powering	Standard 100 - 240 V, 50 - 60 Hz				✓			
	VDC (on request) 18—56 VDC (18-40 VAC)				✓			
	PoE (IEEE 802.3af) single sided	✓	-	-	-	-	-	-
	PoE+ (IEEE 802.3at) single sided	-	✓	✓	-	-	-	-
	PoE+ (IEEE 802.3at) double sided	✓	-	-	-	-	-	-
	Power consumption [VA]	single sided	15	22	23	33	38	56
	double sided	29	42	44	66	75	110	95
Timekeeping in ambient temperature -25 ÷ +60 °C	running reserve	6 years						
	accuracy	± 0.1 s / day without synchronization (after 24 hours of synchronization at constant temperature)						
Environment	temperature	-25 ÷ +60 °C						
	humidity	0 - 95% (without condensation)						
	protection degree	IP 65						
Weight [kg]	single sided N.N and N.S version	4,3	4,9	6,4	8,9	10,4	14,6	14,1
	double sided D.S version	6,9	7,6	9,7	13,5	16,6	24,1	23,2
Dimensions [mm] (W x H x d)	single sided N.N version	533	753	833	1213	1093	1633	1423
		193	193	253	253	343	343	403
		63	63	63	63	63	63	63
	single sided N.S version	533	753	833	1213	1093	1633	1423
		193	193	253	253	343	343	403
		63	63	63	63	63	63	63
double sided D.S version	533	753	833	1213	1093	1633	1423	
	193	193	253	253	343	343	403	
		98	98	98	98	98	98	98

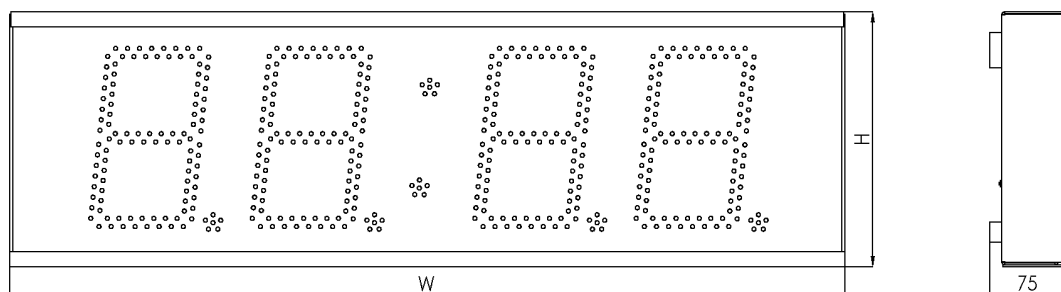
Notes:

- Dimensions and weights of clock versions N.S and D.S are without ceiling suspension part.
- Standard ceiling suspension lengths (70, 100, 150, 300 or 500 mm) or custom length on request.
- Accessories for all models can be chosen from the table "Order reference".

ECO-M-DSC assembly diagram

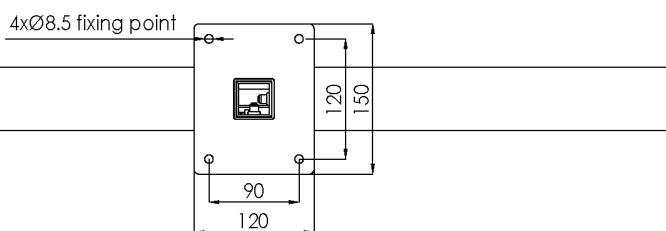
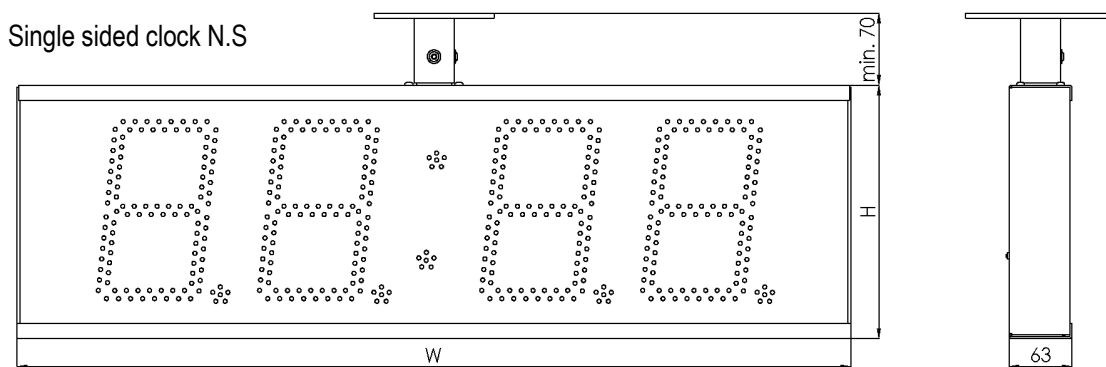
Wall mounting

Single sided clock N.N

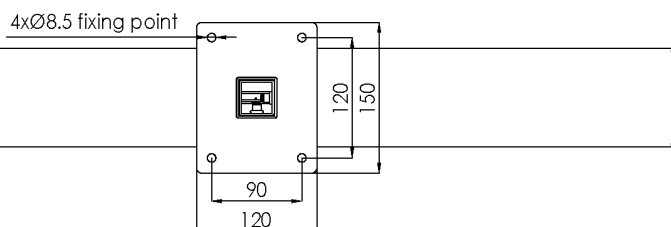
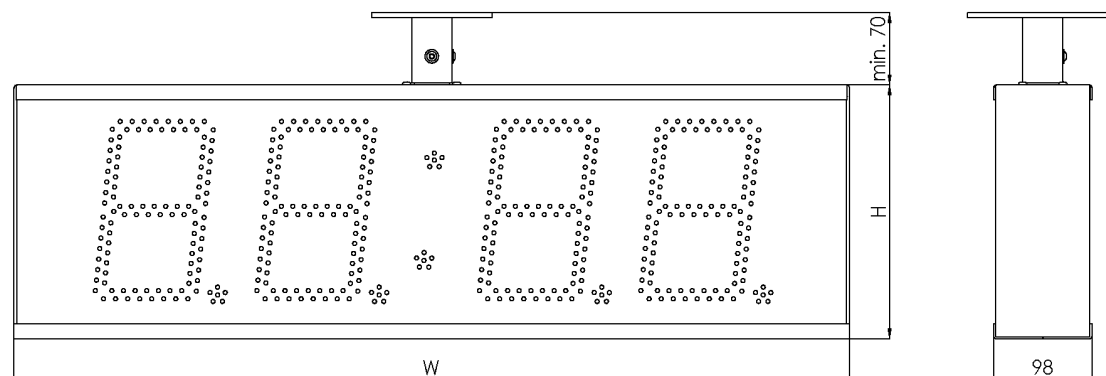


Ceiling suspension mounting

Single sided clock N.S



Double sided clock D.S

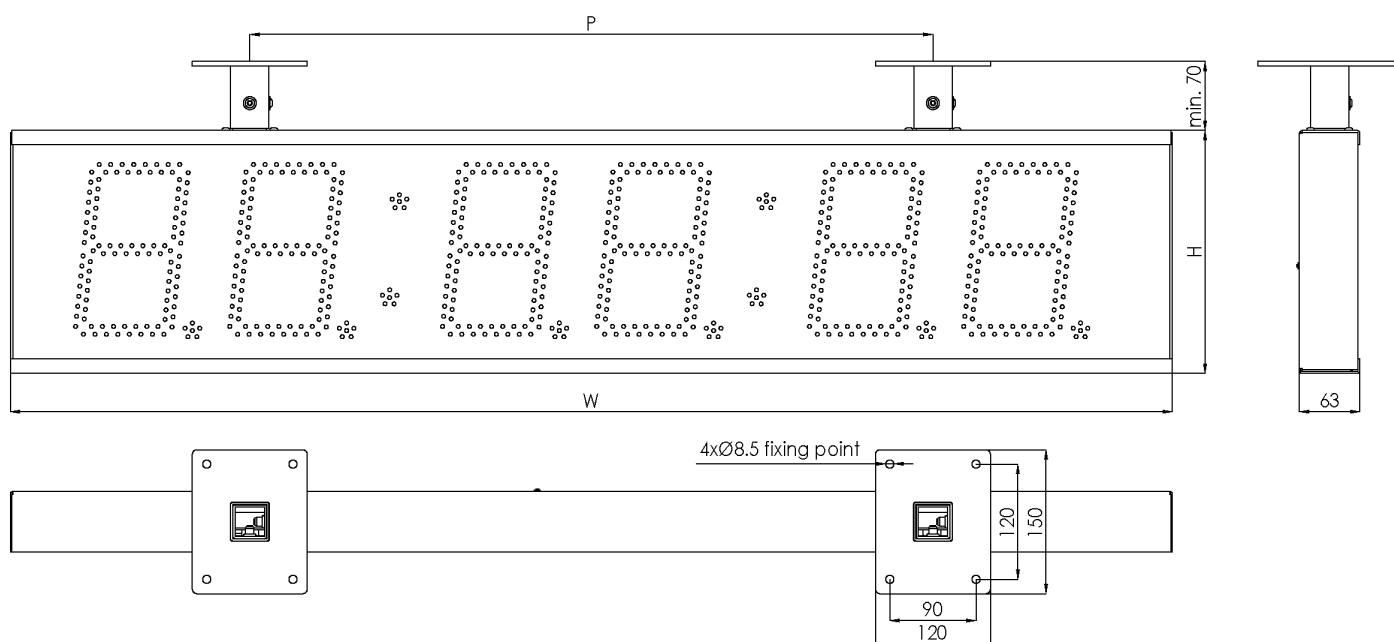


ECO-M-DSC assembly diagram

- Two ceiling suspension rods per clock, DC.180x.6 ceiling suspension span 713 mm, DC.250.4 ceiling suspension span 593 mm, 250x.6 ceiling suspension span 1 133 mm, 320.4 ceiling suspension span 923 mm.

Ceiling suspension mounting

Single sided clock N.S



Double sided clock D.S

