



## In- and Outdoor Digital Clock

# DSC Series

This type of general-purpose digital clock, intended to be used outdoors, features versatile combinations of height and number of digits. The clock meets the requirements of the majority of conventional applications. 7-segment display of high luminance LED for excellent readability for up to 200 m distance from various angles of view even on direct sunshine.

The following features complete the range of this outdoor digital clock:

- Available in red and green
- Aluminum housing, powder coated in black RAL 9005

- Wall mounting, ceiling suspension or wall bracket mounting

### Options:

- External sensors for temperature display
- Auxiliary interface for RS 232, RS 485 and IRIG-B
- Built-in Ethernet LAN interface
- External buttons for stopwatch
- Infrared remote control for easy access to all functions, for configuration as well as for the stopwatch function

## The clock

- Display of time values (either 12 or 24 hours time cycle)
- Four-digit (HH:MM) or six-digit (HH:MM:SS) format
- Display of calendar date in four or six digit format (including the year)
- Display of temperature in °C or °F. Up to two sensors connectable
- Alternating display of time, date and temperature, with adjustable time period for the displays of the corresponding figures
- Possibility of setting up the time zone

## Stop watch

- Counting upwards, from zero, up to 24 hours
- Counting downwards from a specified value, with stop at zero, automatic restart or counting into minus values
- Display of intermediate time value, "freezing" of display, cumulated intermediate time
- Counting in steps of 1 minute, 1 second or 1/100 seconds
- Operation via keyboard or remote IR control
- Possibility to connect another display unit
- Possibility of parallel switching over into the time / date or temperature display mode

## Basic properties

- Digit height of 100 to 500 mm, which corresponds to a readability distance of 40 up to 200 m
- Digits available in red and pure green. Other colors on request
- Manual or automatic adjustment of the luminosity of LED displays
- Front side glass with dark filter for improved readability
- Single-sided design for wall mounting, single- and double-

sided design with wall mounting bracket (side console) or ceiling suspension

- Clock frame made by aluminum profiles with powder coated in RAL 9005 color (black) as standard, any other RAL color on request
- Adjustment of clock parameters using two push buttons inside of the clock (behind the cover) or through remote control
- Autonomous, quartz controlled time base, with the possibility of synchronization using the following: DCF 77 radio signal, one-minute pulses 24 V, MOBATIME serial code, MOBALine, RS 232, RS 485, IRIG-B or GPS

- By cascading, several digital clocks can be synchronized from one DCF or GPS receiver
- Protection degree IP 65

## Accessories

- GPS or DCF 77 radio signal receiver
- Temperature sensors of IP 66 protection degree
- Remote IR control for clock set up and stop watch control

## On request

- Internal relay, triggered when the stopwatch (in countdown mode) reaches zero

## Type designation of the DSC series digital clock

DSC	1	2	3	4	5	6
Digit height ("x" after height only for 6 digit version)						1
100 mm						100 (x)
180 mm						180 (x)
250 mm						250 (x)
320 mm						320 (x)
500 mm						500 (x)
Number of digits						2
four digits (HH:MM)						4
six digits (HH:MM:SS)						6
Display color						3
red						R
pure green						PG
Clock design						4
single-sided						N
double-sided						D
Mode of assembly						5
Wall mounting (for single-sided clocks only)						N
Ceiling suspension (specify length with order: 10, 30, 50 cm or on request)						S
Wall mounting bracket (side console)						B
Options						6
Built-in RS 232, RS 485, IRIG-B interface						SI
Built-in Ethernet interface for synchronization from an NTP time server						LAN
Frame color on request (black, RAL 9005 as standard)						RALxxxx
Accessories						
Temperature sensor, IP 66, with 3 m cable						DC.TP
Temperature sensor, IP 66, with 30 m cable						DC.TP30
Temperature sensor, without cable (max. 1200 m), 12 VDC powered						DC.RS485
Keyboard for stopwatch control, cable 5 m						DC.SK
Remote IR control (included)						IR
Internal relay (for stopwatch use)						REL
DCF 77 radio receiver						DCF 4500
GPS 4500 satellite receiver						GPS 4500

Technical Data		DSC.100.4	DSC.100x.6	DSC.180.4	DSC.180x.6	DCS.250.4	DCS.250x.6	DCS.320.4	DCS.320x.6	DCS.500.4	DCS.500x.6
Display	Digit height (mm)	100	100	180	180	250	250	320	320	500	500
	Number of digits	4	6	4	6	4	6	4	6	4	6
Time display (12 or 24 h)	HH:MM	✓		✓		✓		✓		✓	
	HH:MM:SS		✓		✓		✓		✓		✓
Date display	DD.MM	✓		✓		✓		✓		✓	
	DD.MM.YY		✓		✓		✓		✓		✓
Reading distance up to		40 m	40 m	70 m	70 m	100 m	100 m	130 m	130 m	200 m	200 m
Power supply	AC standard	100 - 240 VAC, 50 - 60 Hz									
	DC on request	24 VDC ± 20 %									
Power consumption	single-sided	20 VA	30 VA	30 VA	40 VA	45 VA	65 VA	70 VA	100 VA	70 VA	100 VA
	double-sided	40 VA	60 VA	60 VA	80 VA	90 VA	130 VA	140 VA	200 VA	140 VA	200 VA
Timekeeping in ambient temperature -15 to +60 °C	lifecycle of battery	6 years									
	accuracy without synchronization	± 0.3 sec/day (measured over 24 h, after synchronization of at least 24 h)									
Accuracy of temperature measurement	range -10 to +85°C	± 0.5°C									
	range -50 to +125°C	± 2.0°C									
Environment	temperature	-25 to +60°C									
	humidity	0-95% (without condensation)									
	protection degree	IP 65									
Weight (kg)	single-sided	5.5	7.5	10	13.5	17	24.5	23	32.5	52.5	75
	single-sided N.B version	10	12.5	16	20.5	25	33.5	33	45.5	68.5	93
	single-sided D.B version	10.5	12.5	16.5	21	25.5	34	34	46.5	69.5	94
	double-sided D.S version	15	19	25	33	41	55.5	54	75	115	159.5
	double-sided D.B version	15.5	19	25.5	33.5	41.5	56	55	75.5	116	160.5
Dimensions in mm W x H x D	single-sided N.N version	530	750	840	1220	1250	1740	1500	2200	2200	3250
		191	191	260	260	350	350	430	430	640	640
		85	85	85	85	85	90	90	90	105	105
	single-sided N.S version	530	750	840	1220	1250	1740	1500	2200	2200	3250
		300	300	360	360	450	450	530	530	790	790
		100	100	100	100	100	105	105	105	105	105
	single-sided N.B version	620	840	930	1310	1350	1840	1610	2310	2320	3370
		191	191	260	260	350	350	430	430	640	640
		100	100	100	100	100	105	105	105	105	105
	double-sided D.S version	530	750	840	1220	1250	1740	1500	2200	2200	3250
300		300	360	360	450	450	530	530	790	790	
165		165	165	165	165	170	170	170	170	170	
double-sided D.B version	620	840	930	1310	1350	1840	1610	2310	2320	3370	
	191	191	260	260	350	350	430	430	640	640	
	165	165	165	165	165	170	170	170	170	170	
Accessories											
IR remote control unit		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
DCF 4500 receiver		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
GPS 4500 receiver		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
External temperature sensors of IP 66 protection degree		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
External keyboard for stopwatch control, cable 5 m		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Internal relay		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

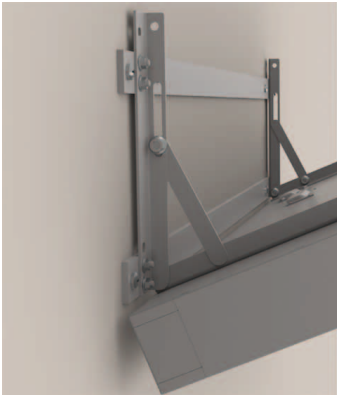
Note:

- Dimension of clock versions N.S and D.S are including ceiling suspension 100 mm height (for model DSC.500.N.S and DSC.500.D.S 150 mm height)
- Dimensions of clock versions N.B and D.B are including standard wall bracket
- Weight of clock versions N.S, N.B, D.S and D.B are including standard ceiling suspensions or wall bracket
- Accessories for all models can be chosen from the table "Type designation or the DSC series digital clock"
- IR remote control unit is included

## Assembly and mounting

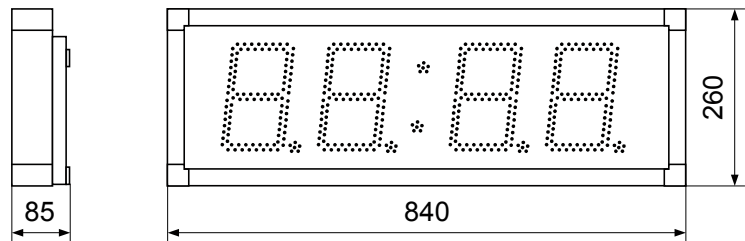
- Easy two-step mounting procedure for all models and sizes
- Clock body on tiltable console for simple access to connecting terminals during installation and servicing
- Mounting holes distance and dimensions of the brackets are specified according to the type of clock

### Wall mounting (DSC.180.4.x.N.N)



#### Single-sided clock

- Wall mounting on the tiltable console
- Possibility of locking the console in vertical position

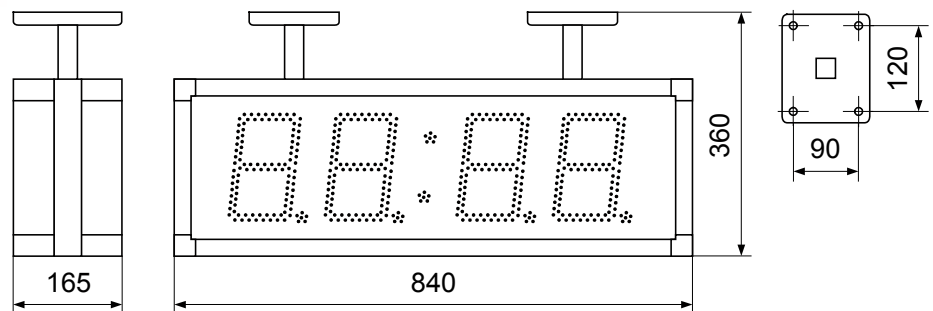


### Ceiling suspension mounting (DSC.180.4.x.D.S)

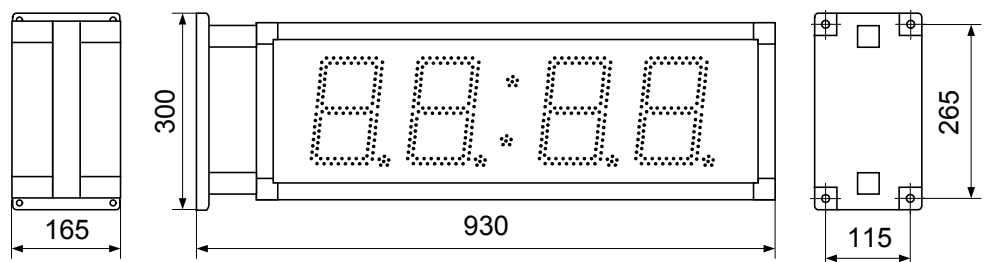
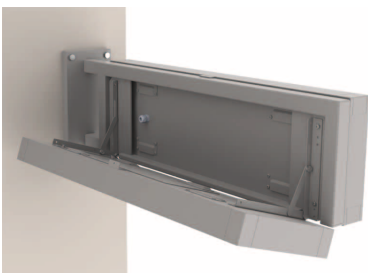


#### Double-sided clock

- Mounting double-sided clock on the tiltable console makes the assemblage easier
- The double-sided clock consists of the displaying and the control part, and the central mounting console
- Console can be delivered disassembled for easy transport



### Wall mounting bracket (DSC.180.4.x.D.B)



Measurements for other versions on demand