

ANALOGUE OUTDOOR CLOCK

METRO

The Metro outdoor clock has been used by various Swiss railway companies for decades. Thanks to its robust construction and a large number of different movements, it has proven itself to this day.



7 STEPS TO YOUR METRO

To make sure your Metro meets all your requirements, you can assemble the components individually. Naturally, our experts will be happy to help.

1.

Are you looking for an illuminated clock?

ILLUMINATION

The Metro is available with or without illumination:

CODE	ILLUMINATION
MT0	none
MT2	LED warm white
MT4	LED cold white

2.

How big does your clock need to be?

SIZE

The Metro is available in multiple dial diameters. The reading distance varies depending on the dial, lighting, viewing angle, etc. These are the standard options:

Ø	READING DISTANCE
40 cm	45-50m
50 cm	55-60m
60 cm	65-70m
80 cm	85-90m
100 cm	105-120m

On request, the Metro is available in any diameter between 40 and 200 cm.



3.

What shape would you like?

SHAPE

The Metro is available in single-sided and double-sided versions:

CODE	SHAPE
R1	round, single-sided
R2	round, double-sided

4.

The Metro analog clock offers a variety of time code variants. Pick yours:

TIME CODE

Code	Time code	Ø	Power supply	Hands	Movement	Max. power consumption	Accuracy (synchronized)	Loss of signal
MOBALINE SELF-SETTING: MXX								
M12	MOBALine	40–80	MOBALine	h/m/s	MLU 190t S 230	< 10mA @ 230VAC (<3W)	<+/- 100ms	12:00 position after 24 hours
M16	MOBALine	40–100	MOBALine	h/m	SAM 100t	< 20mA @ >17VAC (0.34W)	<+/- 100ms	MOBALine: 12:00 position after 24 hours DCF active: 12:00 position after 7 days
M18	MOBALine	40–100	MOBALine	h/m/s	SEM 100t	< 30mA @ >17VAC (0.51W)	<+/- 100ms	
NTP (LAN) SELF-SETTING (WITH UNICAST AND MULTICAST): NXX								
N11	NTP	40–80	PoE	h/m	NBU 190t PoE	PoEclass 2: <1.6W ³ / <3.2W ⁴	<+/- 50ms	12:00 position after 24 hours
N13	NTP	40–80	PoE	h/m/s	NBU 190t S PoE			
N01	NTP	40–80	230V (24VDC)	h/m	NBU 190t 24 + PS24	< 60mA @ 24VDC (<1.44W)	<+/- 50ms	12:00 position after 24 hours
N03	NTP	40–80	230V (24VDC)	h/m/s	NBU 190t S 24 + PS24			
POLARIZED IMPULSES: IXX								
I02	Min. impulse	40–80	12–60V impulse	h/m	NU 90t	-6mA @ 24VDC (0.14W)	-	Standstill
I06	Min. impulse	40–80	12–60V impulse	h/m/s	NU 90t SYN	6mA @ 24VDC (0.14W) 10mA @ 230VAC (<2W)	-	Standstill
I21	Min. impulse	40–80	12–60V impulse 45–265VAC	h/m/s	IBU 190t S	30mA @ 230VAC (<6.9W)	-	Standstill
SERIAL: SXX								
S01	Serial	40–80	230V	h/m	SU 190t 230	50mA @ 24VDC (<1.2W)	<+/- 100ms	12:00 position after 24 hours
S03	Serial	40–80	230V	h/m/s	SU 190t S 230	12mA @ 230VAC (<3W)		
IRIG/AFNOR: TXX								
T51	IRIG/AFNOR	40–80	230V	h/m	ATBU 190t 230	10mA @ 230VAC (<2.3W)	<+/- 100ms	12:00 position after 24 hours
T53	IRIG/AFNOR	40–80	230V	h/m/s	ITBU 190t S 230			
GPS / DCF 77 / MSF / WTD WIRELESS TIME DISTRIBUTION: RXX								
R01	DCF / MSF ²	40–80	230V	h/m	BU 190t 230	230VAC (<3W)	<+/- 100ms	12:00 position after 7 days
R04	DCF / MSF ²	40–80	230V	h/m/s	BU 190t S 230			
R26	DCF 77 ¹	40–80	Lithium battery	h/m	FU 192t	-	<+/- 100ms	12:00 position after 7 days
R29	DCF 77 ^{1,5}	40–80	Lithium battery	h/m	FU 192t + BU 192t + CC	-	<+/- 100ms	12:00 position after 7 days
R30	DCF 77 ¹	40–80	Lithium battery	h/m	BU 192t + AD 192.5	-	<+/- 100ms	12:00 position after 7 days
R31	DCF 77 ^{1,5}	40–80	Lithium battery	h/m	2x BU 192t + AD 192.5 + CC	-	<+/- 100ms	12:00 position after 7 days
R51	GPS ⁶	40–80	Lithium battery	h/m	GU 192t V2	-	<+/- 200ms	12:00 position after 53 days
R54	GPS ^{5,6}	40–80	Lithium battery	h/m	GU 192t V2 + BU 192t + CC	-	<+/- 200ms	12:00 position after 53 days
R80	WTD ¹	40–80	Lithium battery	h/m	BU 192t + RU	-	<+/- 100ms	12:00 position after 7 days
R88	WTD ¹	40–100	230V (24VDC)	h/m	SAM 100t + RM + PS24	230VAC (<18W)	<+/- 200ms	12:00 position after 24 hours
R90	WTD ¹	40–100	230V (24VDC)	h/m/s	SEM 100t + RM + PS24			
QUARTZ: QXX								
Q02	Quartz	40–80	Lithium battery	h/m	QU 192t	-	<+/- 4min/y ⁷	-
Q03	Quartz ⁵	40–80	Lithium battery	h/m	QU 192t + BU192t + CC	-	<+/- 4min/y ⁷	-
CLOCK CONTROLLER (WITH ILLUMINATION CONTROL): CXX								
C01	MOBALine	40–100	230 VAC	h/m	SAM 100t + DCC	0.55A @ >230VAC (<20W)	<+/- 100ms	MOBALine: 12:00 position after 24 hours DCF active: 12:00 position after 7 days
C03	MOBALine	40–100	230 VAC	h/m/s	SEM 100t + DCC		<+/- 100ms	
C09	NTP	40–100	230 VAC/PoE	h/m	SAM 100t + NCC	0.55A @ >230VAC (<20W) PoE, class 4, <22W	<+/- 100ms	12:00 position after 7 days
C11	NTP	40–100	230 VAC/PoE	h/m/s	SEM 100t + NCC		<+/- 100ms	
LARGE MOVEMENTS: FXX								
F20	MOBALine	80–100	MOBALine	h/m	DMU 140	< 80mA @ >17VDC (<1.36W)	<+/- 100ms	MOBALine: 12:00 position after 24 hours
F21	MOBALine	80–100	230V (24VDC)	h/m	DMU 140 + PS24	< 60mA @ 24VDC (<1.44W)	<+/- 100ms	DCF active: 12:00 position after 7 days

¹ internal antenna and receiver (only for clocks without illumination) ² without antenna, external antenna required ³ single-sided clock

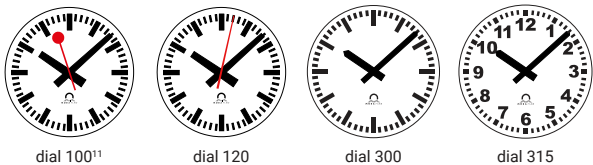
⁴ cascaded double-sided clock ⁵ for double-sided clocks, cascading cable included ⁶ mini magnetic antenna and receiver ⁷ without synchronization

For special clockwork/time code variants, see document TE-800800 at www.mobatime.com in the Customers section

5.

Choose your dial:

DIAL



¹ not available in Switzerland

6.

Which type of glass is the right one?

GLASS TYPE

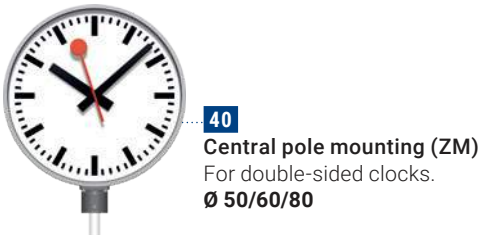
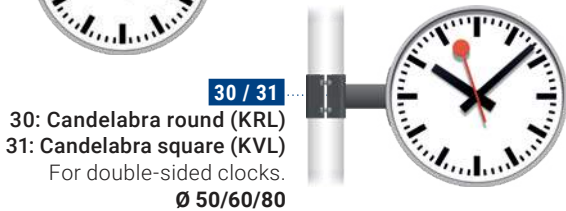
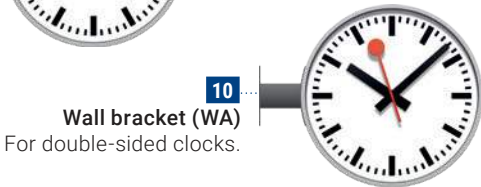
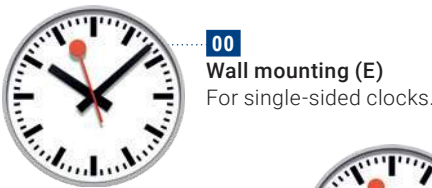
Depending on the intended use, three glass options are available.

- Mineral glass (code 1)
- Tempered glass (code 2)
- Polycarbonate (code 3)

7.

Choose your installation:

INSTALLATION



YOUR METRO IS COMPLETE

You can now order your Metro and calculate the corresponding code. Enter the abbreviation for each component of your choice in the bright field and find your Metro code. It serves as the order code or as the foundation for further steps.

1. Illumination	Code	
2. Size	Ø cm	
3. Shape	Code	
4. Time code	Code	
5. Dial	Code	
6. Glass type	Code	
7. Installation	Code	
Sequence number	Code	0000

Example order code



1.	2.	3.	4.	5.	6.	7.
MT0.	60.	R1.	M16.	101.	1.	00.
Metro no illumination	Ø 60cm	round, single-sided	movement SAM 100t	dial 101¹	mineral glass	wall suspension sequence number²

¹ dial 100 without logo
² The sequence number denotes special versions (e.g. clocks with a special dial). When ordering, please indicate the sequence number with 0000 (standard version); we will adapt this for any special version. Special versions can be reordered at any time stating the sequence number.

General properties

The following properties apply to all Metro clocks:

Housing	Aluminium (RAL 9006)
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STANDARDS

Depending on the movement used in your Metro clock, the following standards apply:

MOVEMENT(S)	STANDARDS
SAM 100t SEM 100t	2011/65/EU / 2014/30/EU / 2014/35/EU / 2016/797/EU / EN 50121-4 / EN 60950-1 / EN 61000-6-2 / EN 61000-6-3
NBU 190t PoE NBU 190t S PoE NBU 190t 24 NBU 190t S 24	2011/65/EU / 2014/30/EU / 2014/35/EU / 2016/797/EU / EN 50121-4 / EN 60950-1 / EN 61000-6-2 / EN 61000-6-4
NU 90t NU 90t SYN	2011/65/EU / 2014/30/EU / EN 61000-6-2 / EN 61000-6-3
IBU 190t S	2011/65/EU / 2014/30/EU / 2014/35/EU / 2016/797/EU / EN 50121-4 / EN 60950-1 / EN 61000-6-3
SU 190t 230 SU 190t S 230	2011/65/EU / 2014/30/EU / 2014/35/EU / 2016/797/EU / EN 50121-4 / EN 60950-1 / EN 61000-6-1 / EN 61000-6-3
ATBU 190t 230 ITBU 190t S 230	2011/65/EU / 2014/30/EU / 2014/35/EU / 2016/797/EU / EN 50121-4 / EN 60950-1 / EN 61000-6-2 / EN 61000-6-3 / IPPS
BU 192t FU 192t QU 192t	2011/65/EU / 2014/30/EU / EN 61000-6-2 / EN 61000-6-3
BU 190t 230 BU 190t S 230	2011/65/EU / 2014/30/EU / 2014/35/EU / 2016/797/EU / EN 50121-4 / EN 60950-1 / EN 61000-6-1 / EN 61000-6-3
GU 192t V2	2011/65/EU / 2014/30/EU / 2016/797/EU / EN 50121-4 / EN 61000-6-2 / EN 61000-6-3
MLU 190t S 230	2011/65/EU / 2014/30/EU / 2014/35/EU / EN 50121-4 / EN 60950-1 / EN 61000-6-3
DMU 140	2011/65/EU / 2014/30/EU / EN 50121-4 / EN 61000-6-2 / EN 61000-6-3 / EN 61000-6-4

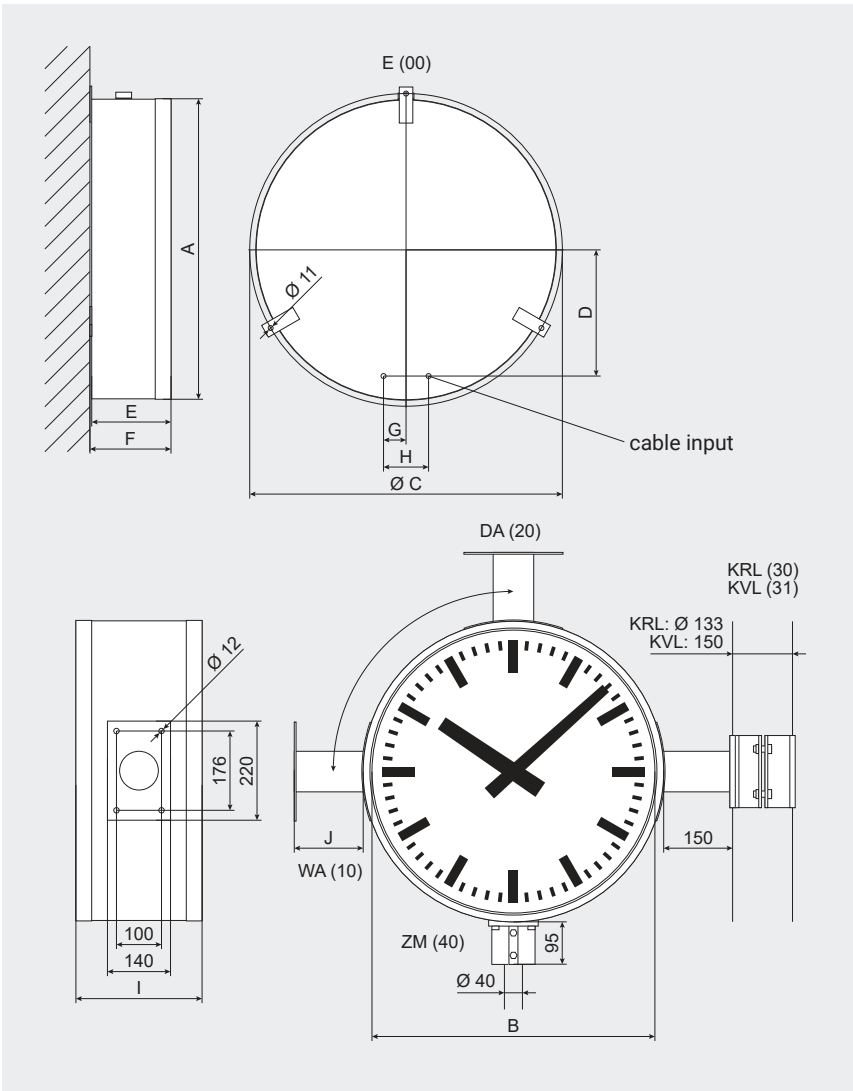
All Metro clocks are compliant with CE, RoHS and REACH.

TECHNICAL DATA

TECHNICAL DATA	METRO
Operating conditions	-30 to +70 °C (0 to 95% relative humidity, non-condensing)
Degree of protection	IP 54

	E									WA/DA			KRL	KVL	ZM
Ø	A	B	C	D	E	F	G	H	Weight	I	J	Weight	Weight	Weight	Weight
40	467	427	494	176	176	180	50	100	8.4	280	75	14.7	-	-	-
50	567	527	594	230	176	180	50	100	10.8	280	150	18.7	22	23.2	17.9
60	667	627	694	280	176	180	50	100	12.9	280	150	22.5	25.8	27	21.7
80	867	827	894	380	176	180	50	100	18.9	280	150	32.9	36.2	37.4	32.6
100	1067	1027	1090	380	257	261	100	200	29.8	-	-	-	-	-	-

All dimensions in mm and weights in kg.



*Do you have any questions?
We are happy to help.*

Product specifications are subject to change without notice.

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