

Mounting, installation & adjusting instructions for facade clocks A 540, A 543, A 545, A 550, A 553 and A 555

1. General considerations

The reliable functioning and the life expectation of a facade clock are depending to a certain extent on the correct installation of the equipment.

Specially for clocks which are exposed to severe climatic conditions it could happen that within the facade clock movement and the shafts condensation could appear if insufficient provision has been made for air circulation.

At very low temperatures, facade clocks could be blocked by icing.

2. Construction, operation and technical datas

See leaflet **LE-800081.01**

3. Preparation of the electrical installation

For facade clocks controlled by polarized minute impulses a 2 cores cable (e.g. 2x1mm² copper wires) between master clock and facade clock movement has to be installed.

4. Mounting

Facade clocks with installation of the movement at rear side of the wall

Preparation of the wall for the following clock types:

A 543 with movement A 43, as per drawing 107 709

A 545 with movement A 45, as per drawing 107 710

A 553 with movement A 53, as per drawing 105 562a

A 555 with movement A 55, as per drawing 105 563a

The wall has to be drilled through for the hand shafts **exactly 90° horizontal** and this hole has then to be fitted with a metal or plastic protection tube (protection tube only necessary for clock types A 545 and A 555).

The minimal inner diameter of the tube for the corresponding clock type is indicated on drawing 107 710 or 105 563a.

The movements A 45 and A 55 can also be flush mounted into a corresponding cut-out of the wall as indicated in the lower part of the respective drawing.

This cut out should be fitted with an according wooden, metal or plastic frame and can be covered with a flat plate or door with ventilation holes.

5. Facade clocks for installation from the front side

A 540 with movement A 40, as per drawing 107 438

A 550 with movement A 50, as per drawing 105 561a

For this type of installation, the facade clocks A 540 and A 550 are supplied complete with a flush mounting case.

This case has to be filled into the wall whereby the right position of the cable introduction is to be considered.

The clock movement must not be exposed to dust or ceiling residues.

Enclosed: LE-800081.01, 105 561a, 105 562a, 105 563a, 107 709, 107 710, 107 438, 110 448, 111 081-1

6. Mounting of the hour markers for dials ZB 1

The 12 hour markers are fixed individually by 2 screws direct onto the facade.
 For fixation onto a brick or concrete wall, corresponding dowels are to be used.
 The outer diameter of the hour index ring corresponds to the ordered nominal dial Ø.
 For ZB 1 with nominal diameters 40 or 50 cm a fixing pattern (drawing) can be supplied under No. 4-108 906.
 For bigger nominal diameters the positioning of the index drillings has to be marked direct on the facade.

7. Mounting of skeleton dials ZB 45 and ZB 46

Please refer to drawing 111 081-1

For these dial types, the 12 hour markers are already mounted on a light metal ring.
 The complete dial ring can be mounted through the available fixing holes, with corresponding screws direct to the facade. For brick and concrete walls, corresponding wall dowels are to be used.

8. Mounting of movement and hands

Fix the movement with the corresponding screws or wall bolts to the rear side of the wall in a way that the tube inserted into the wall and the shaft of the movement do not touch each other.

At the factory the movement is set at 12 o'clock. Therefore the hands are to be fixed to the position 12 o'clock with the lateral screws of the hand bushings. Take care, that the screw points are fixed into the lateral center holes of the hour and minute hand shafts.

9. Connection of the polarized minute impulses 12 to 48 VDC

Connect the minute impulse cable to the connector-screw terminals X1 of impulse adapter p.c. board, as per figures 1 and 2:

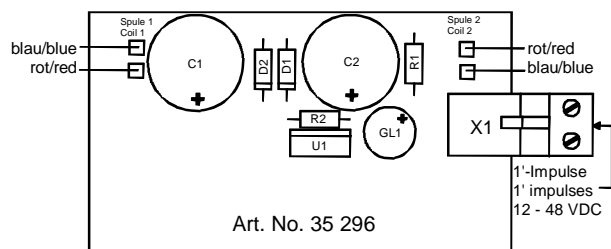


Fig. 1

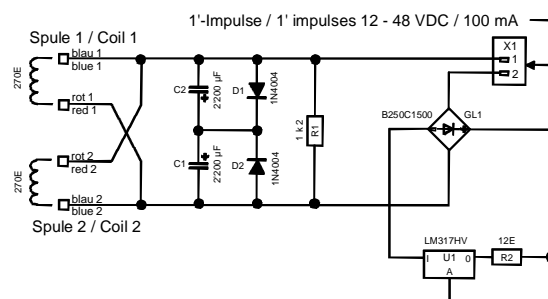
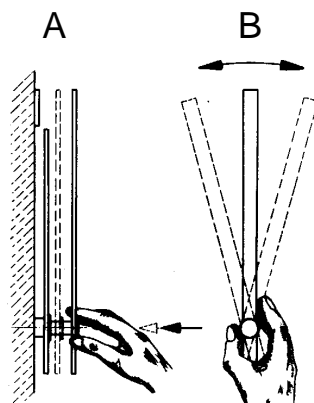


Fig. 2

10. Adjustment to day time

For the types A 540 - A 555 the minute hand can be turned in any way after depressing the center of the minute hand shaft, as per figure 3



A: Unlock the minute hand shaft in direction of the arrow.

B: Adjust the wished day time by moving the minute hand

Fig. 3

Facade clocks for indoor and outdoor mounting Ø 25 - 150 cm

consisting of: 1 slave clock movement for rear- or front-sided wall mounting
 1 pair of hands
 1 dial consisting of 12 individual hour markers
 or
 1 skeleton dial

Execution:

In the standard execution hands and dials are made of thermo-lacquered light metal. The dial is mounted directly on to the wall.

If the clock movement is mounted behind the wall, the length of the hand shaft is adapted according to the wall thickness. For the front sided wall mounting the clock movement is fixed into the wall by a flush mounting box with cover plate.

Function:

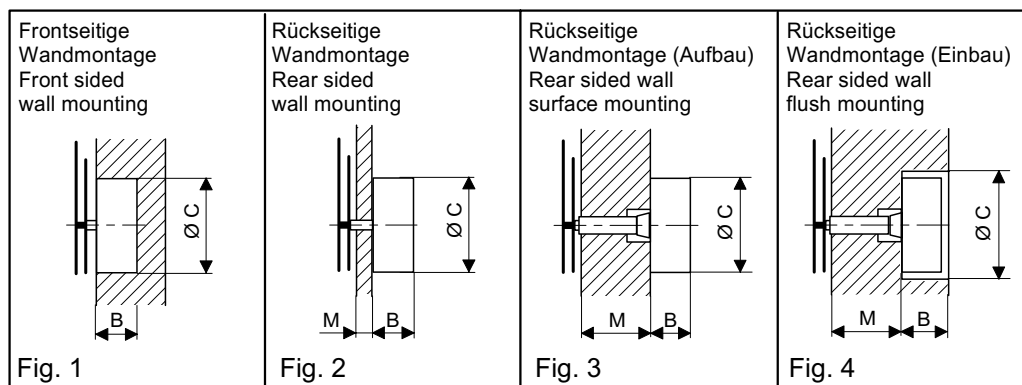
The clock movement is controlled by polarized minute impulses from a master clock. The hands of the clock for outdoor mounting are blocked mechanically between the minute impulses.



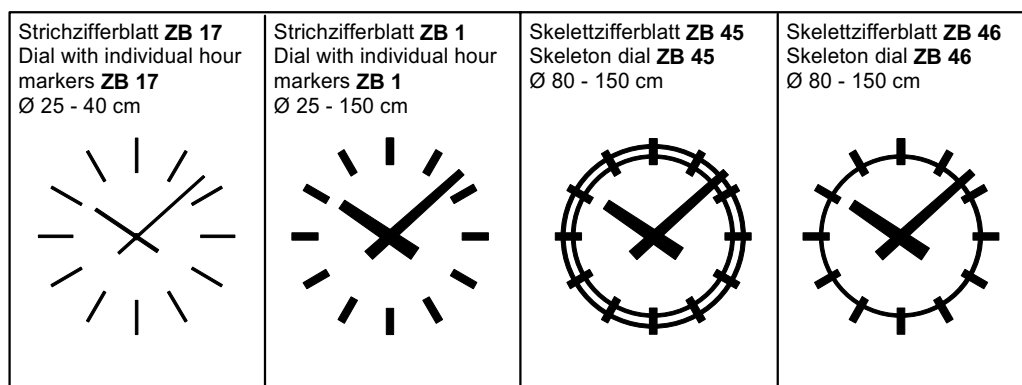
Uhrentypen Clock types

	Zifferblatt-Ø (cm) Dial-Ø (cm)									Typ Type	Fig.	Abmessungen (mm) Dimensions (mm)			Spannung / Strom Voltage / Current
	25	30	40	50	60	80	100	120	150			M _{max.}	B	Ø C	
Innenuhr Indoor clock										A 509b	2	34	40	140	12 V / 12 mA 24-60 V / 6 mA
Ausseruhren Outdoor clocks										A 540	1	--	80	208	12-48V/100mA
										A 543	2	40	80	196	
										A 545	3	300	80	196	
										A 545	4	300	100	300	
										A 550	1	--	80	208	
										A 553	2	40	80	196	
										A 555	3	450	80	196	
									A 555	4	450	100	300		

Montagearten Mounting possibilities



Zifferblatt-Typen Dial types



Farbe von Zeiger und Zifferblatt schwarz oder weiss, andere Farben auf Anfrage.
Spezialzifferblätter nach Kundenwunsch.
Colour of hands and dial black or white, other colours on request.
Special dials as per customers specifications.

Bestellvorschriften Necessary indications when ordering

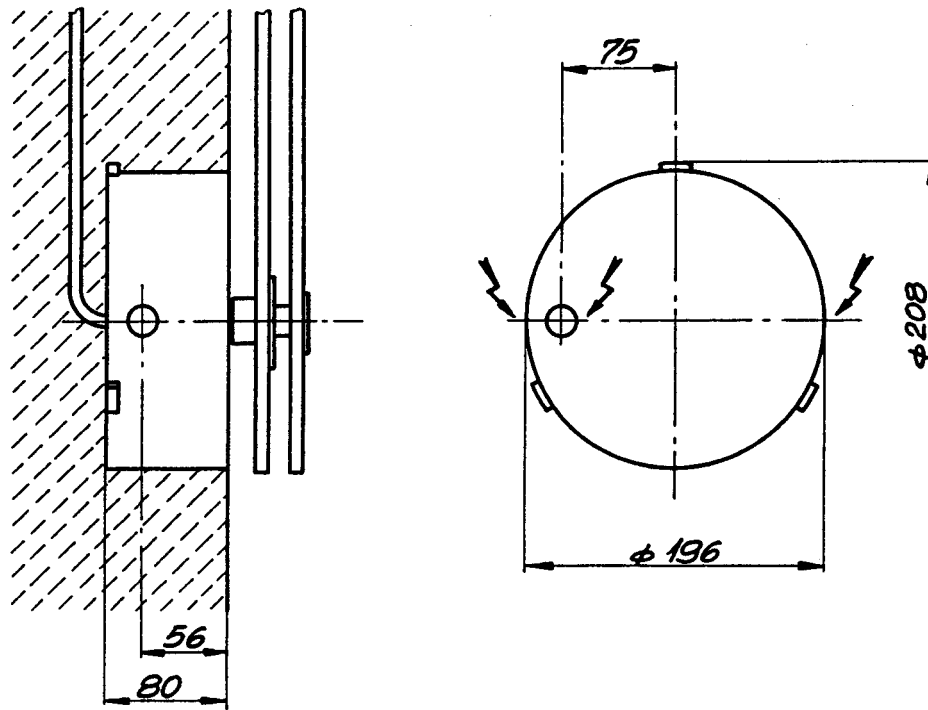
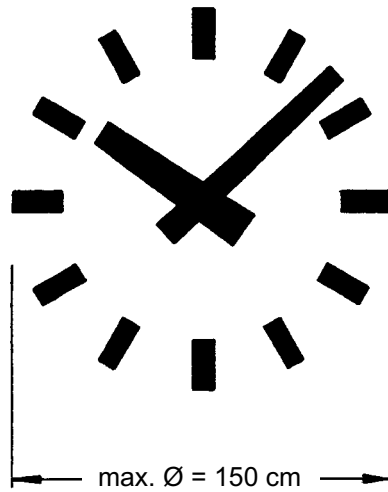
Bei Bestellung bitte angeben:
Uhrentyp, Zifferblatt-Typ, Zifferblatt-Ø, Farbe, Impulsspannung, Mauerdicke M

Please indicate when ordering:
Type of clock, type of dial, diameter of dial, colour, impulse voltage, wall thickness M

Bestellbeispiele Exemples of orders

A 509b, ZB 17, Ø 40 cm, weiss / white,
24 VDC, M = 22 mm

A 555, ZB 1, Ø 120 cm, schwarz / black,
48 VDC, M = 350 mm



Rev :	Erstellt :	Datum /	Visum	Geprüft :	Datum /	Visum	Freigegeben :	Datum /	Visum	Bl. 1/1
.01		/			/			/		
.00	18.02.73	/	HjW	30.10.97	/	SL	30.10.97	/	SL	

A 550 Fassadenuhr mit Werk A 50, gesteuert mit polwechselnden Minutenimpulsen 24 bis 48 VDC
 A 550 Facade clock with movement A 50, controlled by polarized minute impulses 24 to 48 VDC



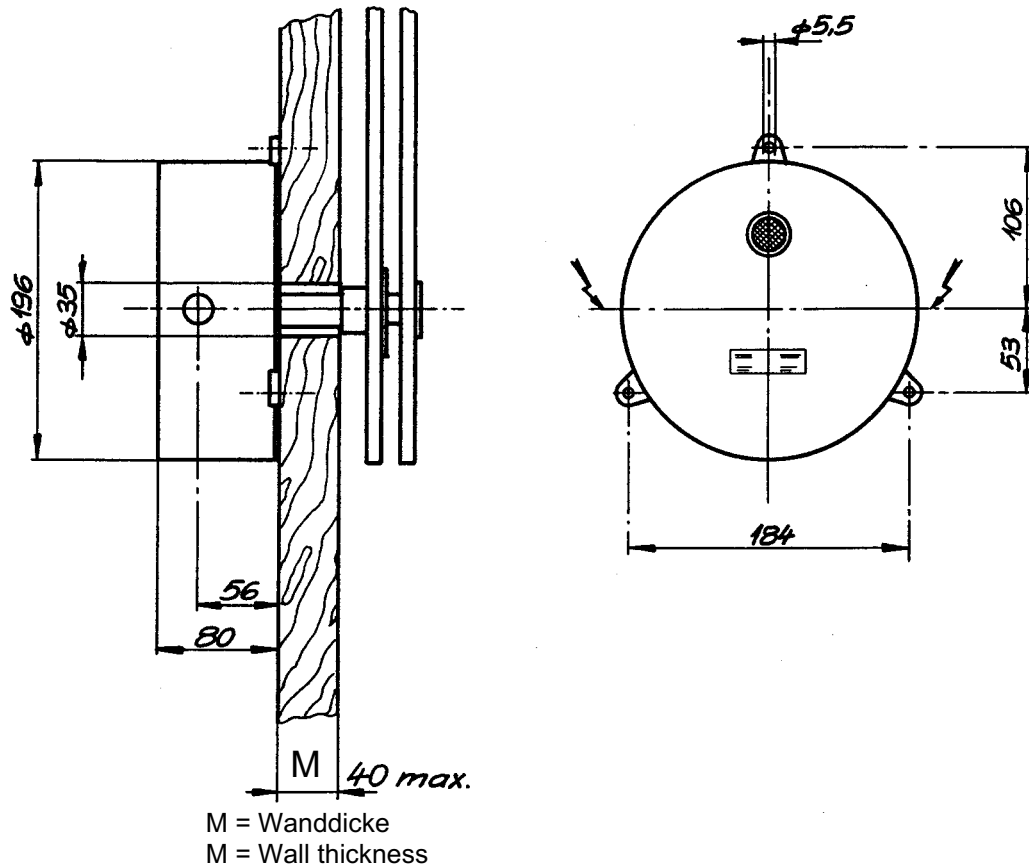
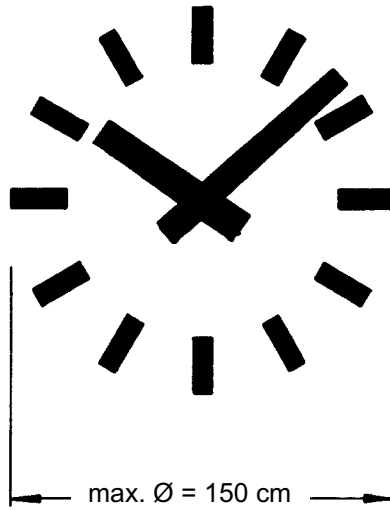
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MBS-Nr:

105 561 a

Rev.

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A 553 Fassadenuhr mit Werk A 53, gesteuert mit polwechselnden Minutenimpulsen 24 bis 48 VDC
 A 553 Facade clock with movement A 53, controlled by polarized minute impulses 24 to 48 VDC



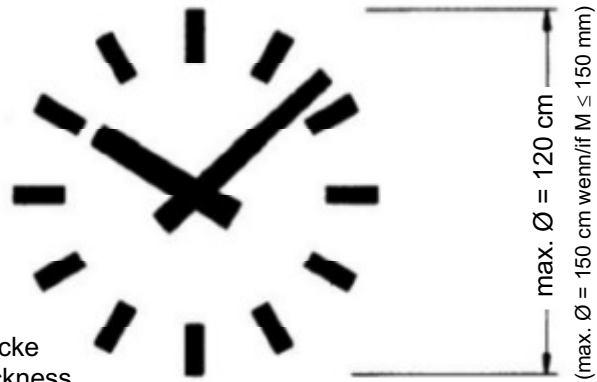
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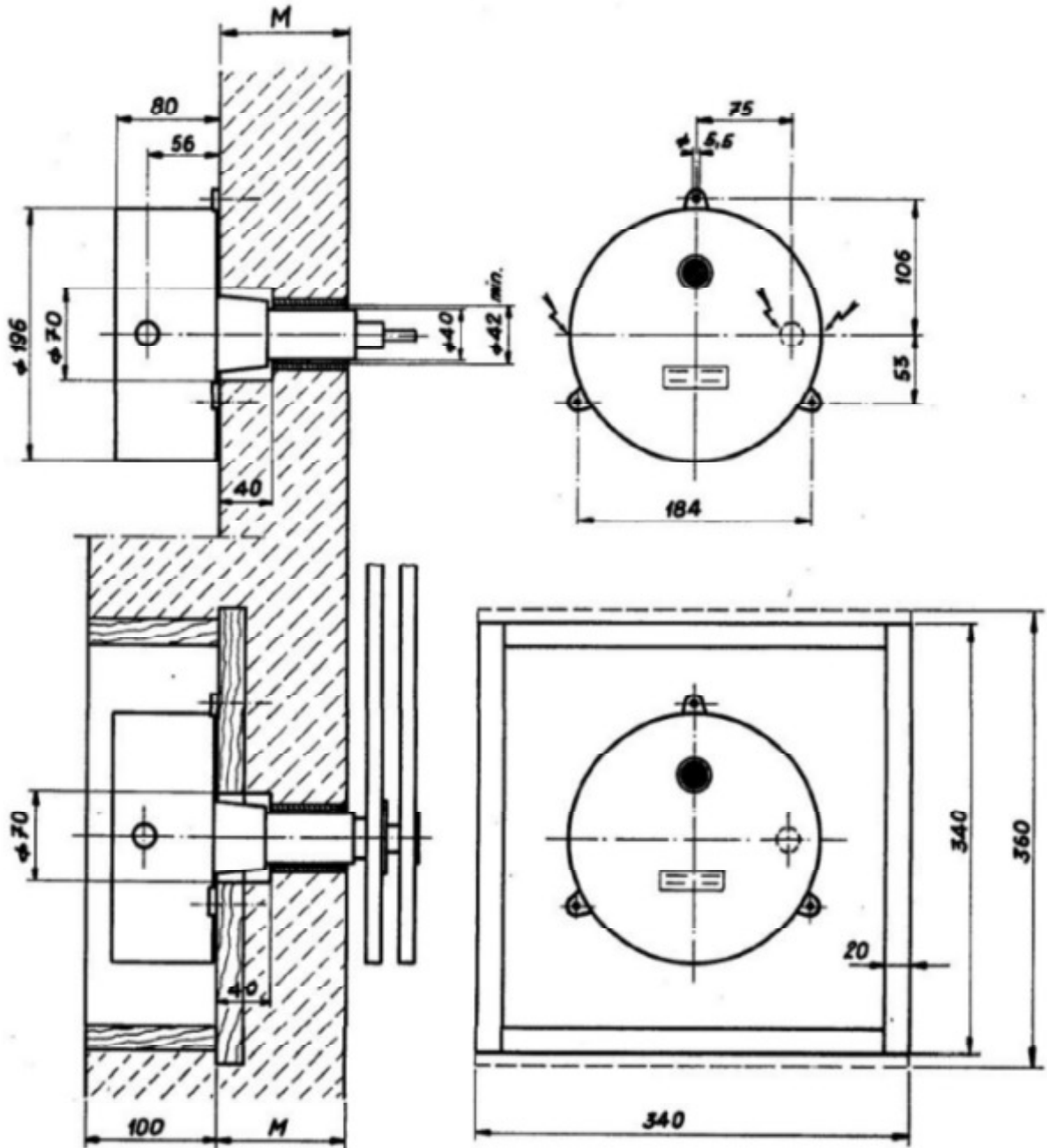
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M = Mauerdicke
M = Wall thickness



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A 555 Fassadenuhr mit Werk A 55, gesteuert mit polwechselnden Minutenimpulsen 24 bis 48 VDC
A 555 Facade clock with movement A 55, controlled by polarized minute impulses 24 to 48 VDC



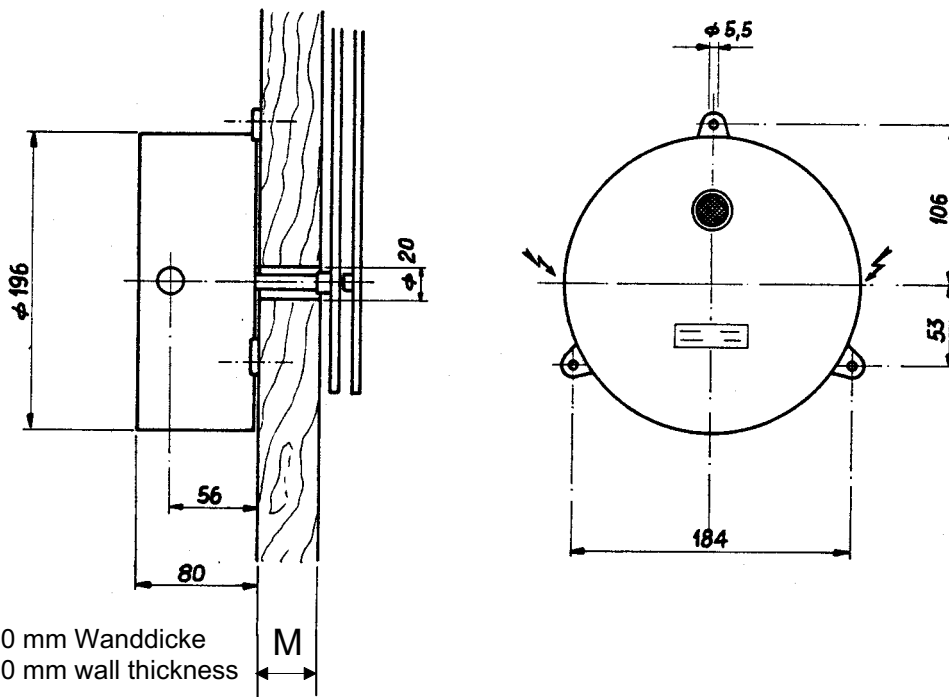
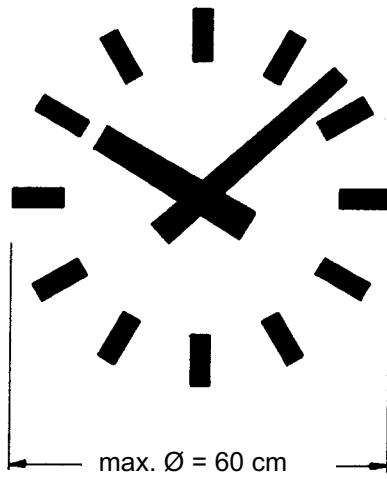
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.01		/			/			/		
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A 543 Fassadenuhr mit Werk A 43, gesteuert mit polwechselnden Minutenimpulsen 24 bis 48 VDC
 A 543 Facade clock with movement A 43, controlled by polarized minute impulses 24 to 48 VDC



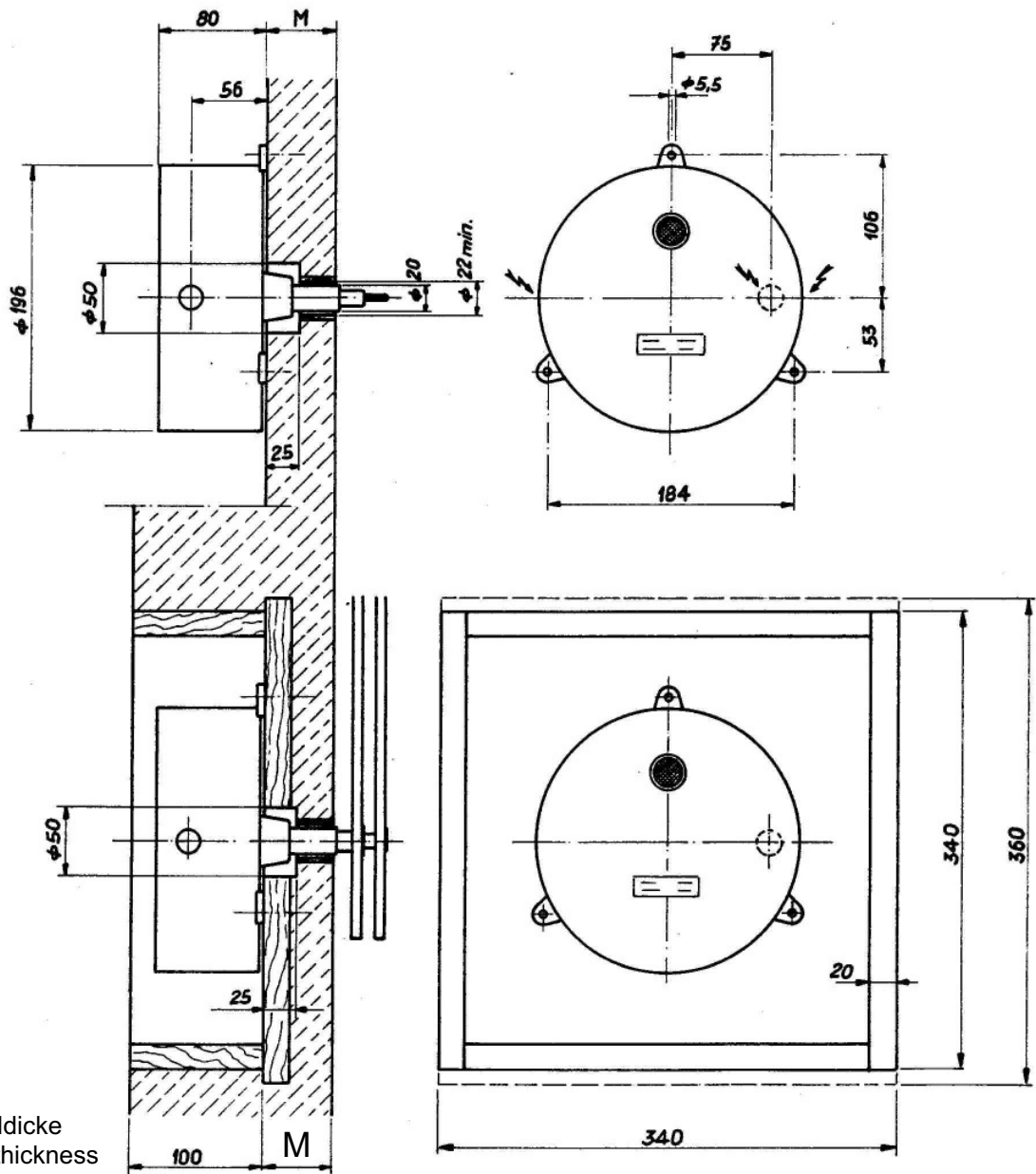
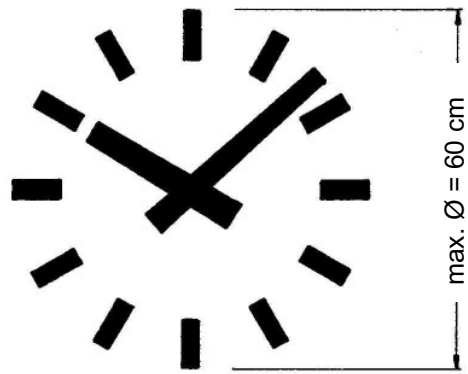
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107 709

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M = Wanddicke
M = Wall thickness

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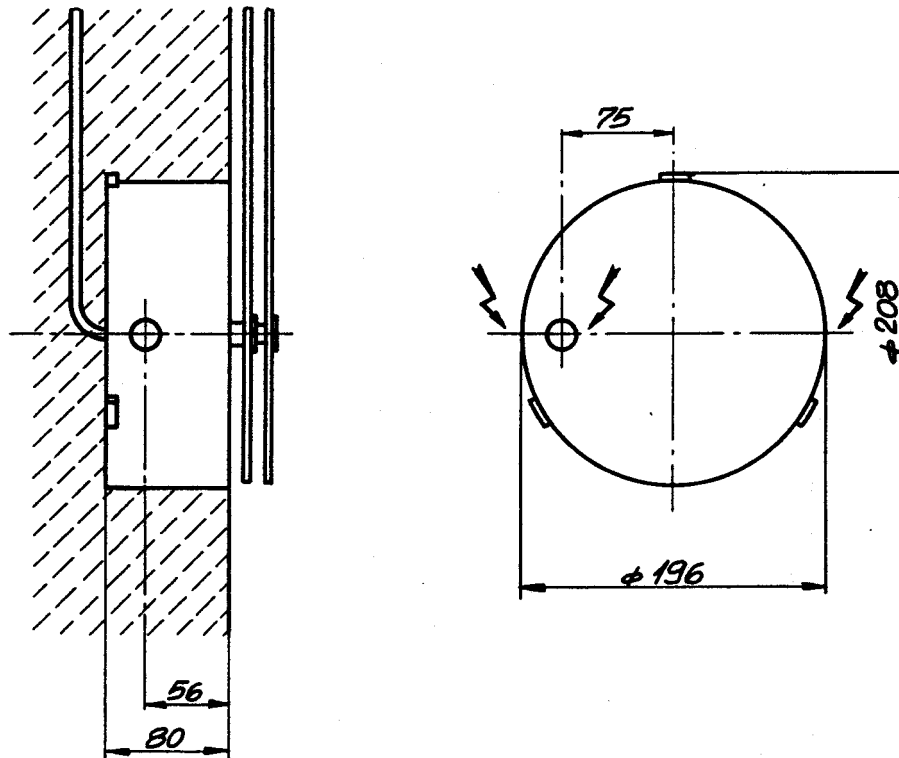
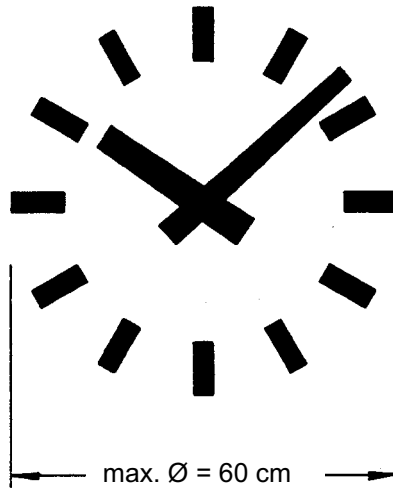
A 545 Fassadenuhr mit Werk A 45, gesteuert mit polwechselnden Minutenimpulsen 24 bis 48 VDC
A 545 Facade clock with movement A 45, controlled by polarized minute impulses 24 to 48 VDC



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A 540 Fassadenuhr mit Werk A 40, gesteuert mit polwechselnden Minutenimpulsen 24 bis 48 VDC
 A 540 Facade clock with movement A 40, controlled by polarized minute impulses 24 to 48 VDC



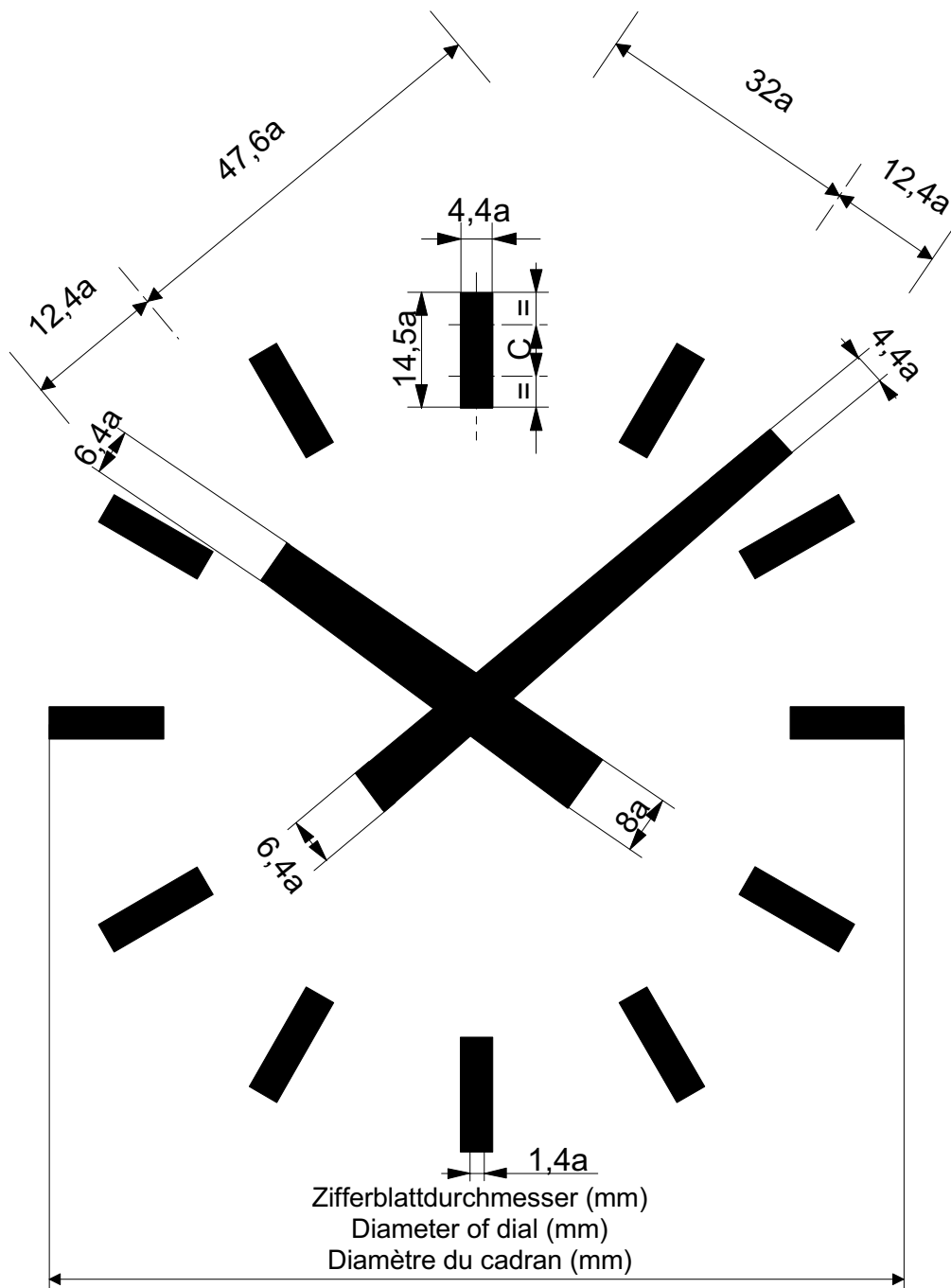
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$$a = \frac{\text{Zifferblattdurchmesser} / \text{Diameter of dial} / \text{Diamètre du cadran}}{100}$$

Zifferblatt Dial Cadran Ø (mm)	C (mm)
600	42
800	70
1000 / 1900	120
2000 / 3500	240

Standard-Abmessungen / standard dimensions / dimensions standard

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.01			/			20.09.2001	/	AA		18.09.2002	/	SL	
.00		07.03.95	/	AA		07.03.95	/	AA		02.12.99	/	SL	

Zifferblatt ZB 1 für Fassadenuhren / Dial ZB 1 for facade clocks / Cadran ZB 1 pour horloges de façade



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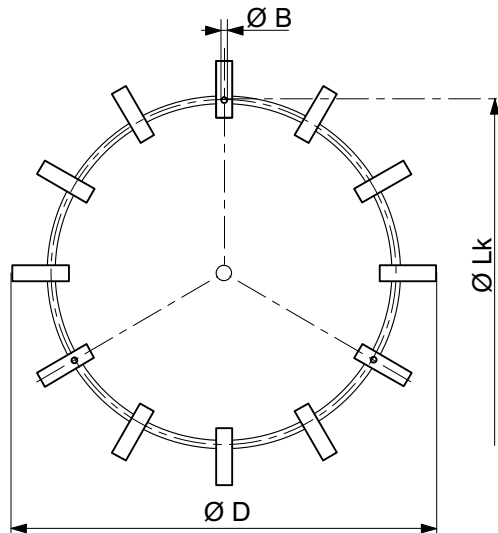
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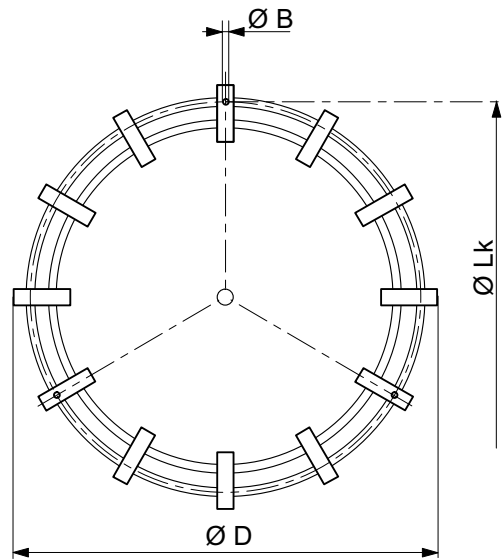
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ZB 46



ZB 45



Werk Movement	Ø D	ZB 46		ZB 45	
		Ø Lk	Ø B	Ø Lk	Ø B
A40-A45	600	470	4,2	553	4,5
A50-A55	800	628	4,2	738	4,5
	1000	785	4,2	920	4,5
	1200	940	7,0	1107	4,5
	1500	1180	7,0	1382	7,0
MW10ECO	1500	1180	7,0	1382	7,0
	1800	1415	7,0	1658	9,0
	2000	1575	10,0	1845	9,0
	2500	1970	10,0	2307	12,0
	3000	2370	10,0	2775	12,0

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Befestigungspunkte für Skelett-Zifferblätter ZB 45 und ZB 46 (für Fassadenuhren)
 Fixation points for skeleton dials ZB 45 and ZB 46 (for facade clocks)



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