PHILIPS

DATA HANDBOOK

PHILIPS ELECTRONIC COMPONENTS AND MATERIALS DIVISION

ELECTRON TUBES

PART 7 MAY 1967

Accessories for electron tubes

ELECTRON TUBES

PART. 7

Accessories for electron tubes

May, 1967

In this booklet, Part 7 of the Data Handbook Electron tubes, outline drawings of a number of accessories mentioned in the other parts of the Data Handbook have been given.

Accessories that have already been published in the Data Handbook for Components and Materials are not repeated in this Part.
Such accessories are e.g. focusing and deflection coil assemblies for camera tubes (see Part 3 of the Data Handbook for Components and Materials) and the greater part of tube sockets (see Part 2).

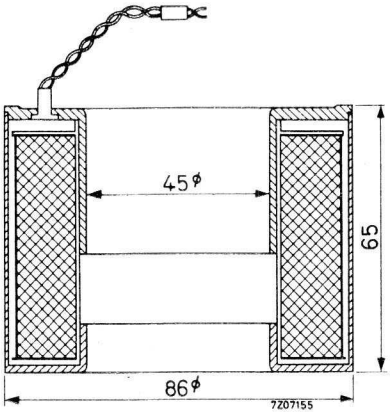
Since a number of tube sockets has been recoded, a survey of the old and new designations is given below.

B870019	2422 502 01003	40202	2422 513 00001
B870020	2422 502 01004	40211/01	2422 512 01001
B870043	2422 501 03002	40212	2422 502 04001
B870051	2422 511 05001	40216	2422 512 00001
B870067	2422 505 00001	40218/03	2422 511 04001
B870069	2422 505 00002	40219	2422 512 03001
B870070	2422 513 01001	40222	2422 513 01001
B870086	2422 502 05001	40403	2422 511 01001
B870228	2422 505 00003	40408	2422 511 02001
5902/20	2422 501 05001	40465	2422 512 02001
5903/13	2422 501 03001	40640	4322 026 11701
5906/20	2422 502 04001	56590 81/40	4322 026 11701
5911/20	2422 515 00001		
5912/20	2422 516 00001		
5914/20	2422 517 00001		

It should be noted that the inclusion of a type does not necessarily imply its availability.

The dimensions of the drawings in this part have been given in mm.

FOCUSING COIL

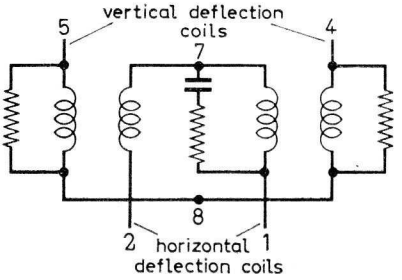


Number of turns	26500
D.C. Resistance	6000 Ω

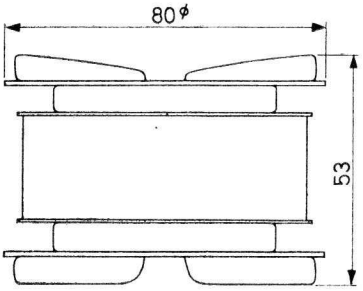
When the MC13-16 is operated at $V_{g_2(\ell)}$ = 25 kV, the current through the focusing coil should be adjusted at approx. 33 mA.

The distance between air-gap centre and the screen surface of the MC13-16 should be 217 mm.

DEFLECTION COIL UNIT

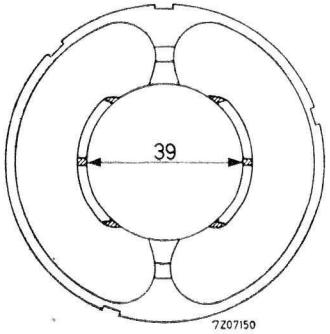


When the MC13-16 is operated at $V_{g_2(\ell)}$ = 25 kV and raster dimensions 60 x 80 mm^2, the horizontal and vertical deflection coils should be connected in series.



Horizontal deflection coils

Inductance	6 mH
Resistance	5.6 Ω
Current, peak to peak	700 mA
Connections (red, grey)	1 and 2

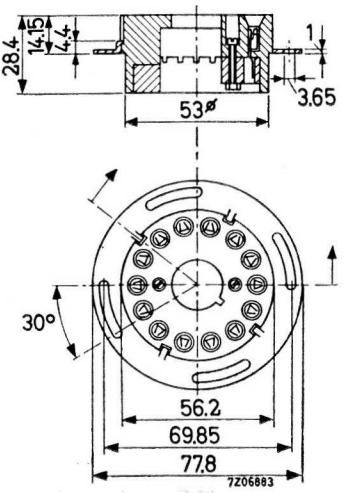


Vertical deflection coils

Inductance	8 mH
Resistance	9.6 Ω
Current, peak to peak	540 mA
Connections (yellow, black)	4 and 5

Operating temperature max. 85 °C

TUBE SOCKET FOR DIHEPTAL BASES

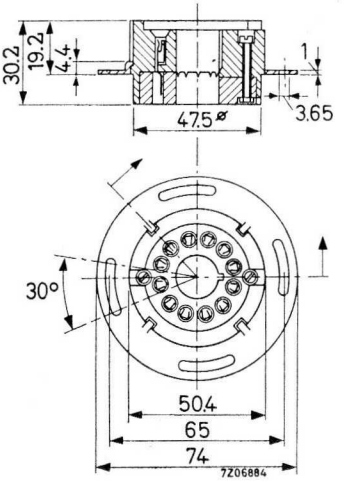


Material: Diallyl-Phtalate Insulating Material

14 silver plated spring contacts

FE1002

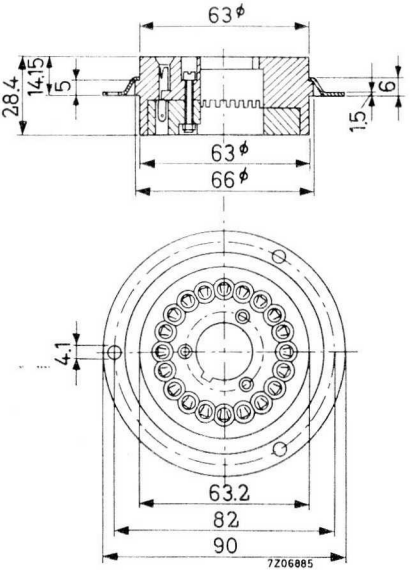
TUBE SOCKET FOR DUODECAL BASES



Material: Diallyl-Phtalate Insulating Material

12 silver plated spring contacts

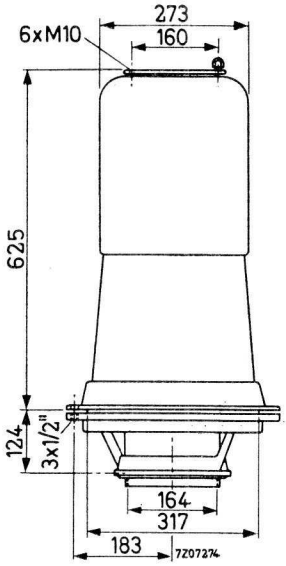
TUBE SOCKET FOR BIDECAL BASES



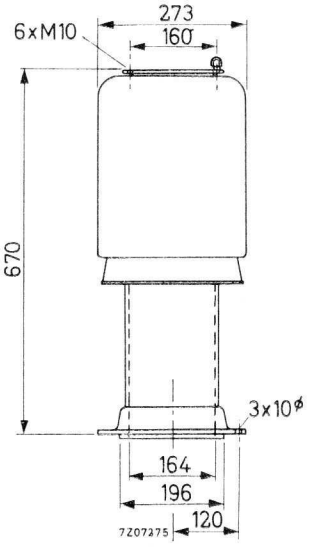
Material: Diallyl-Phtalate Insulating Material

20 silver plated spring contacts

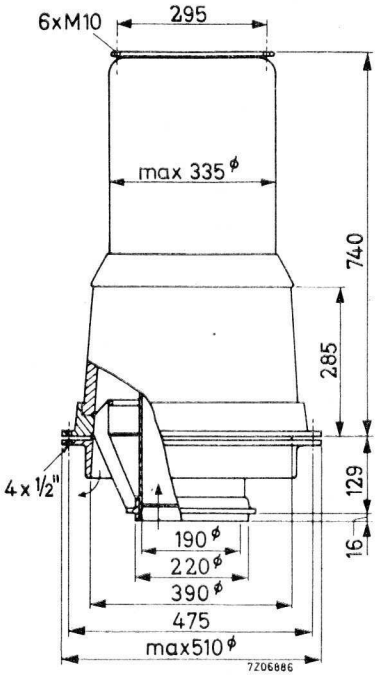
COOLER HOUSING FOR AIR COOLING



COOLER HOUSING FOR AIR COOLING

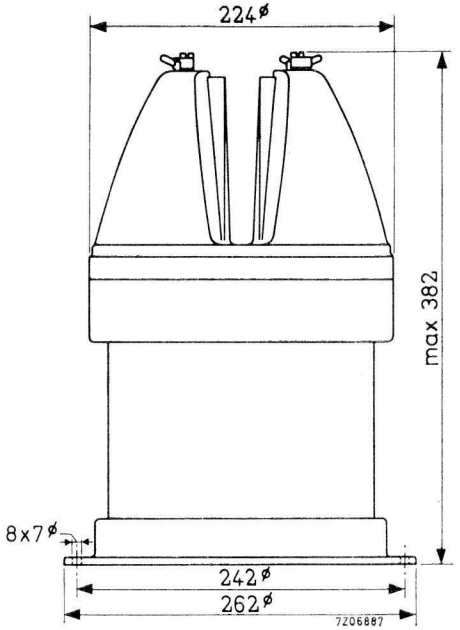


COOLER HOUSING FOR AIR COOLING



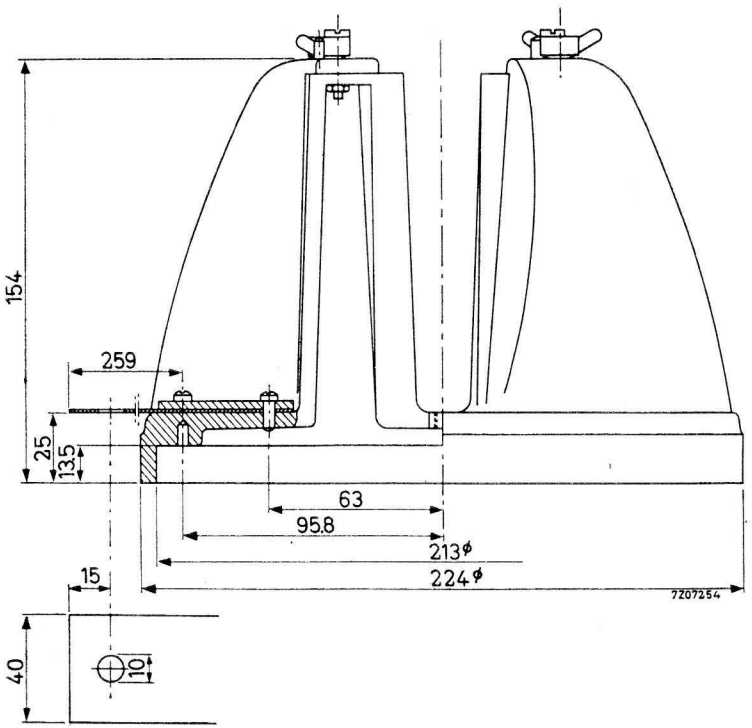
Net weight 72 kg

COOLER HOUSING FOR AIR COOLING

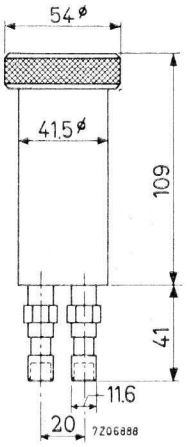


Net weight 7.4 kg

AIR DISTRIBUTOR
UPPER PART OF K508

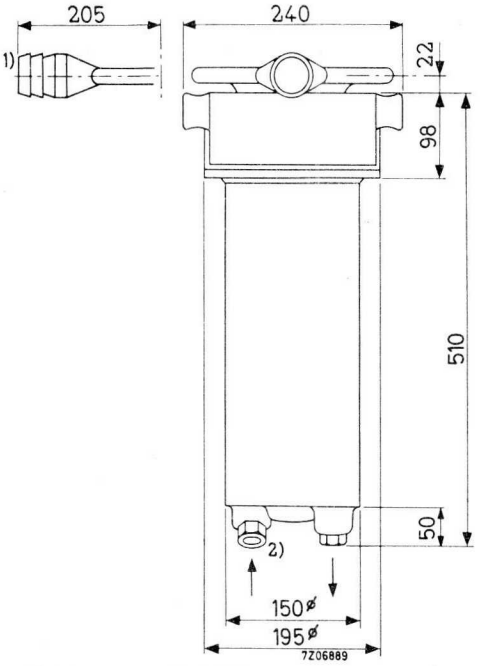


WATER JACKET



Net weight 0.52 kg

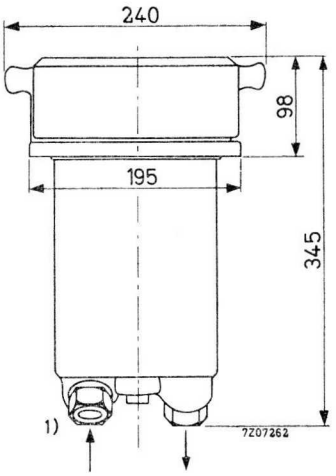
WATER JACKET



1) Use connecting hose with an inner diameter of $1\frac{3}{4}$"
2) Coupling for metal tubing with an outer diameter of 28mm

Net weight 20.5 kg

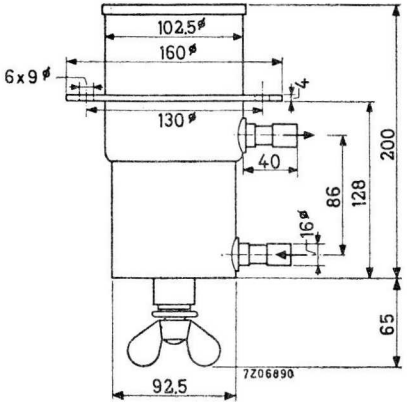
WATER JACKET



1) coupling for metal tubing with an outer diameter of 28mm

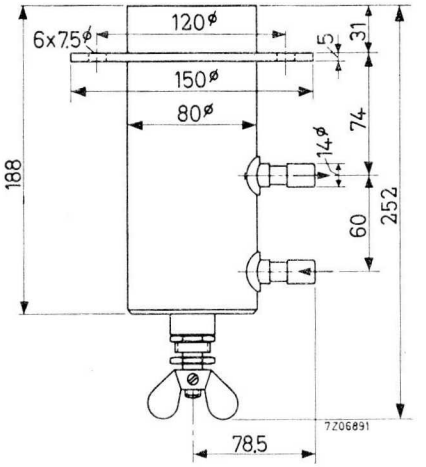
Net weight 16.7 kg

WATER JACKET



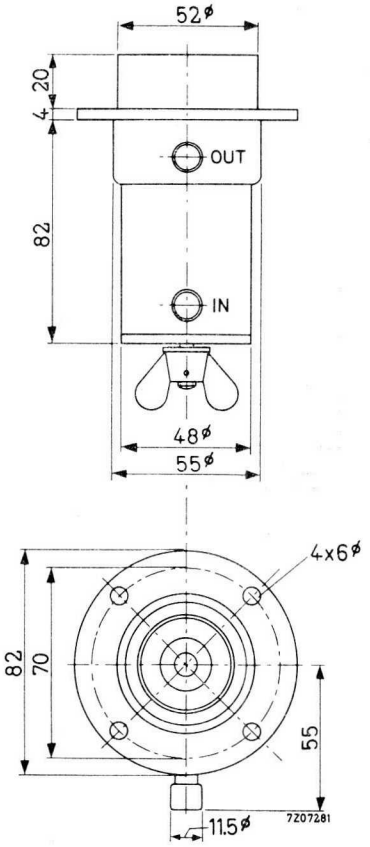
Net weight 2.1 kg

WATER JACKET



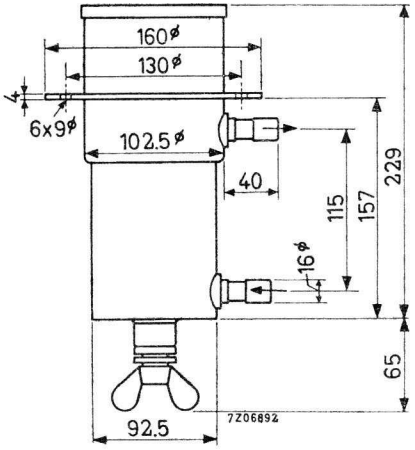
Net weight 2.2 kg

WATER JACKET



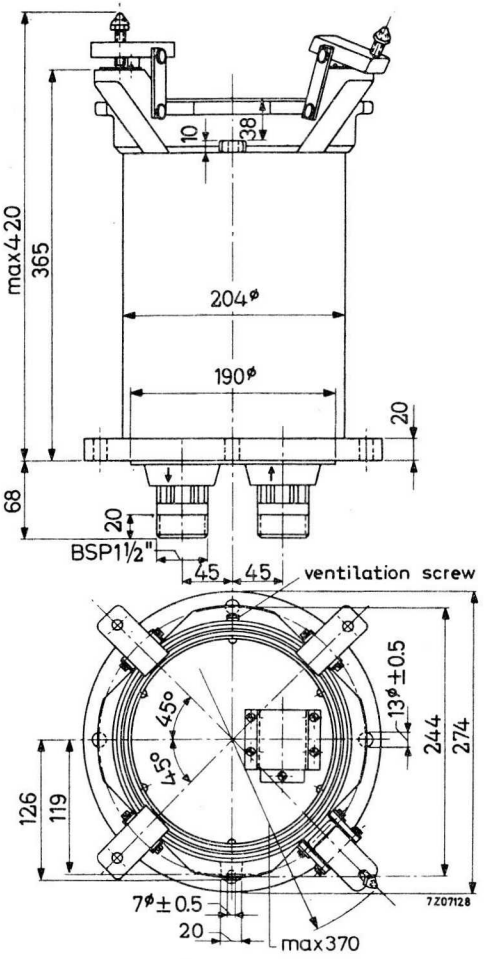
Net weight 0.76 kg

WATER JACKET



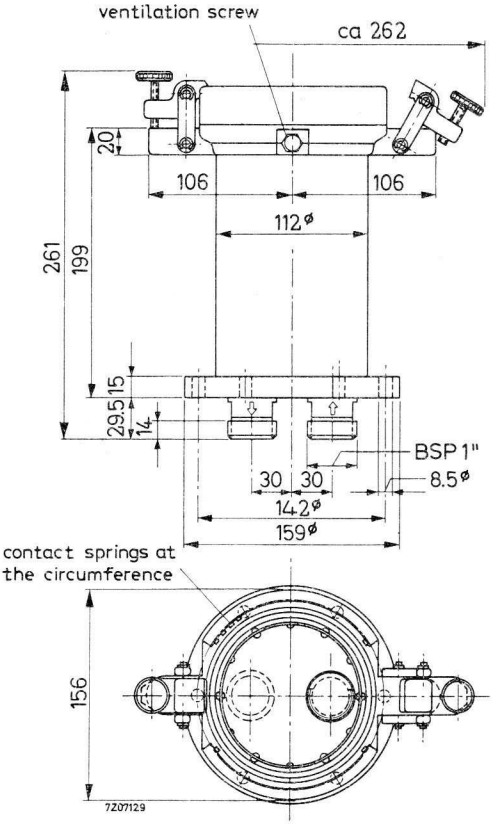
Net weight 2.7 kg

WATER JACKET



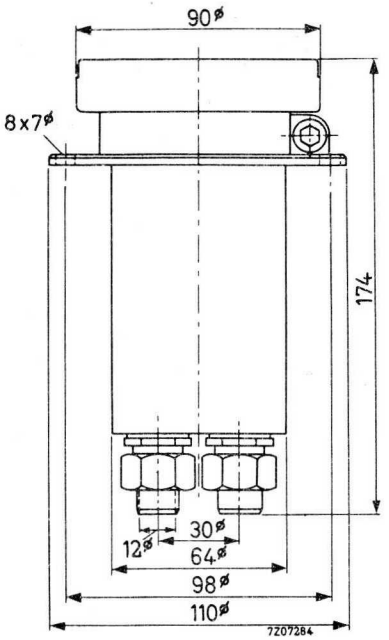
Water pressure	max. 5	ATO
Net weight	30.5	kg

WATER JACKET



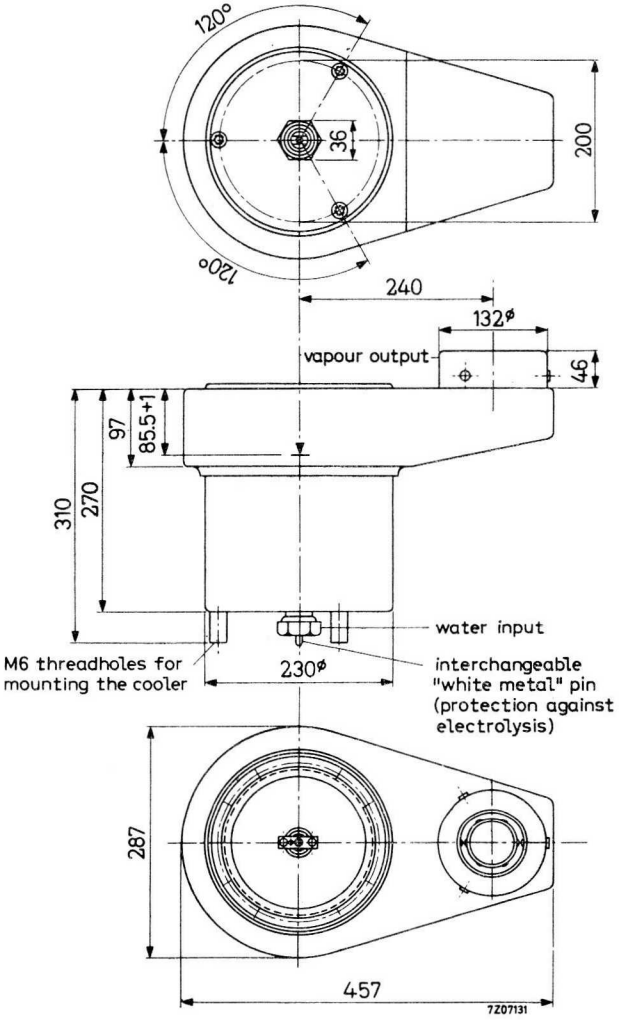
Water pressure	max. 5	ATO
Net weight	5	kg

WATER JACKET



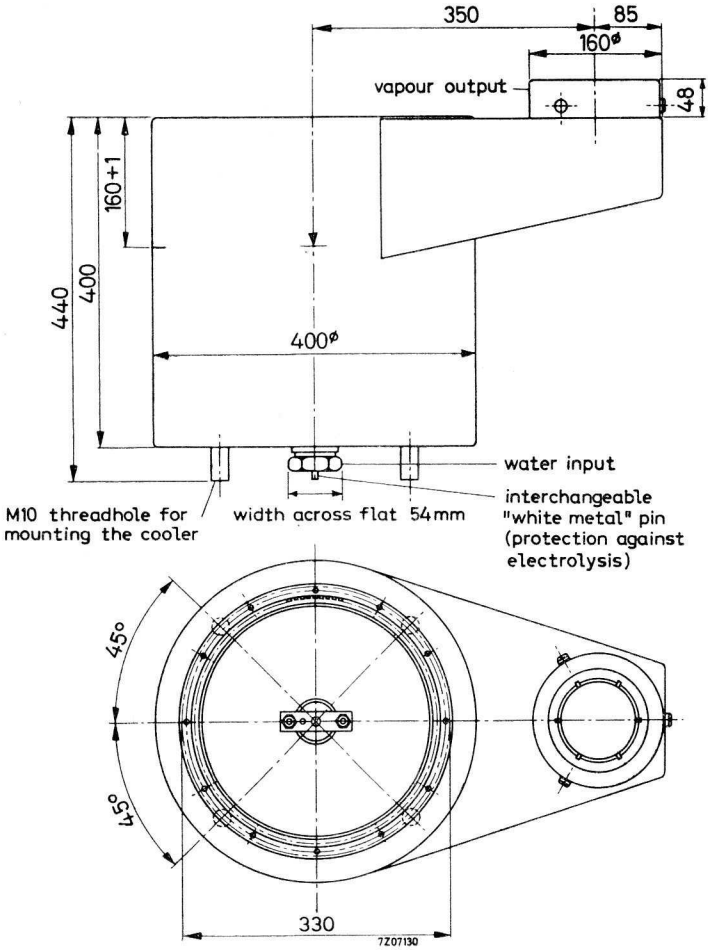
Net weight 2 kg

VAPOUR JACKET



Net weight 8 kg

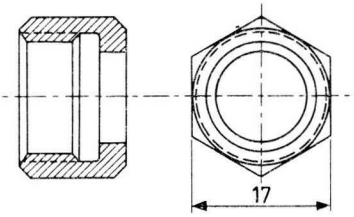
VAPOUR JACKET



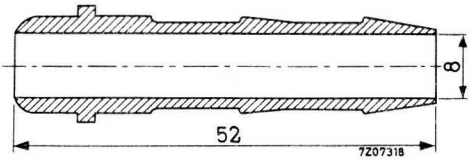
Net weight 22 kg

COOLING WATER CONNECTION FOR IGNITRONS

TE 1051b Cap Nut (Thread 3/8" gas)



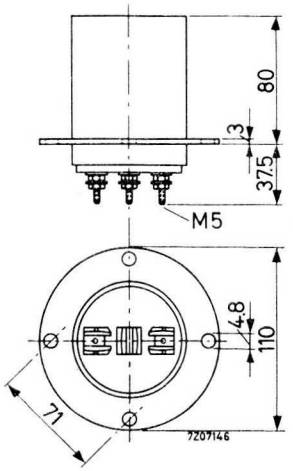
TE 1051c Connection for 9 mm Hose



Material: brass

TUBE SOCKET

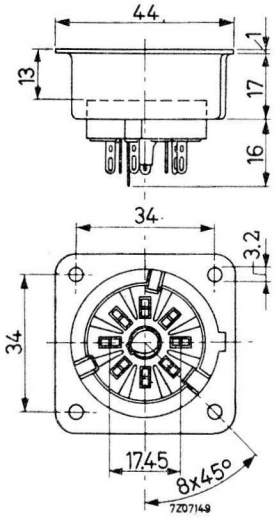
WITH 3 SPRING CONTACTS AND METAL SHIELD



Chassis hole	78	mm
Max. test voltage (50 Hz)	3000	V_{rms}
Min. insulation resistance	10^3	MΩ
Max. working temperature	100	°C
Max. capacitance (between one contact and all other contacts and the shield)	15	pF
Max. contact resistance	10	mΩ
Min. parallel damping at 1 MHz (between one contact and all other contacts and the shield)	0.3	MΩ
Max. insertion force	9	kg
Withdrawal force	4 to 8	kg
Weight	670	g

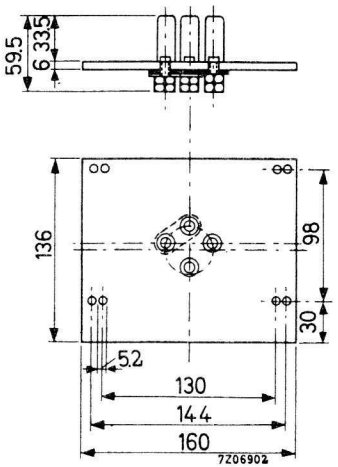
TUBE SOCKET

WITH 8 SPRING CONTACTS AND CENTRAL LOCATING AND LOCKING DEVICE



Chassis hole 42 mm

TUBE SOCKET

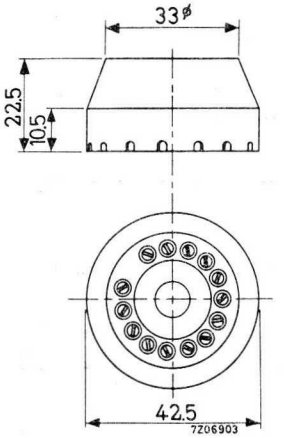


Material: Pertinax Insulating Material

40467

TUBE SOCKET

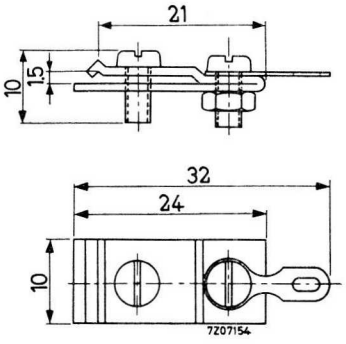
FOR 14-PIN ALL GLASS BASES



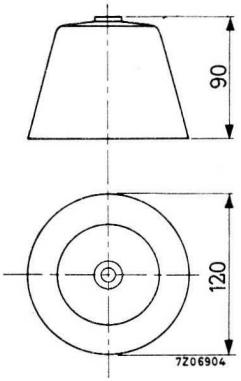
Material: Synthetic resin insulating material

14 silver plated fork-shaped contacts

ANODE CONNECTOR



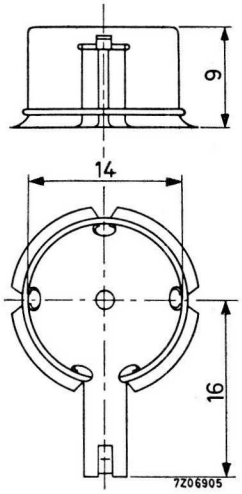
ANODE CAP



Material: Phenolic

TOP CAP CONNECTOR

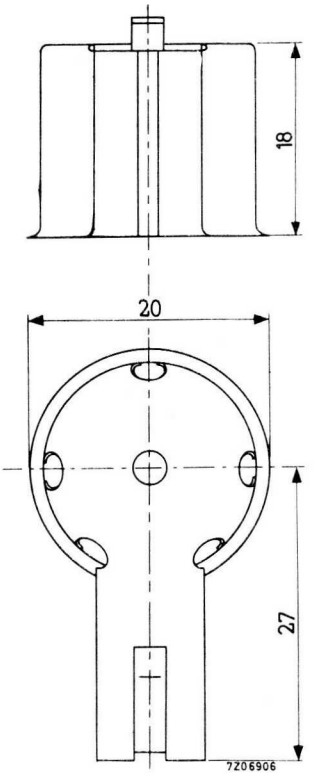
FOR TOP CAPS WITH 14.38 mm Ø (IEC 67-III-1b, type 3).



Material: brass, nickel plated

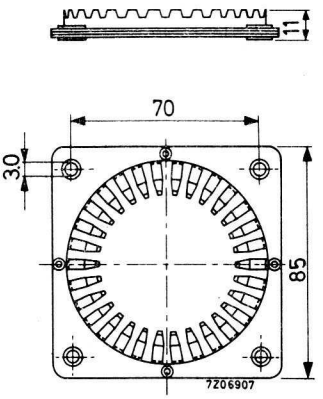
TOP CAP CONNECTOR

FOR TOP CAPS WITH 20.32 mm Ø (IEC 67-III-1b, type 4).



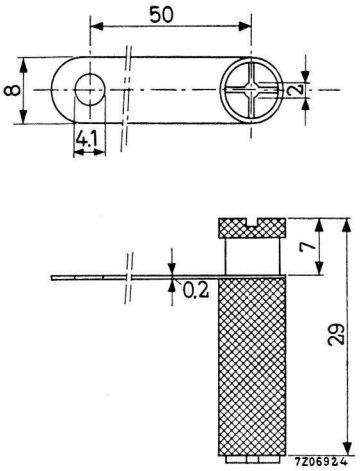
Material: brass, nickel plated

GRID CONNECTOR



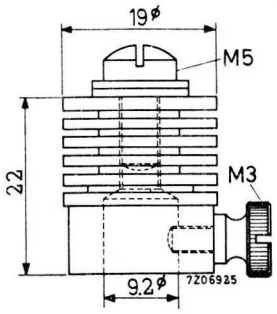
Material: brass, silver plated

ANODE CONNECTOR



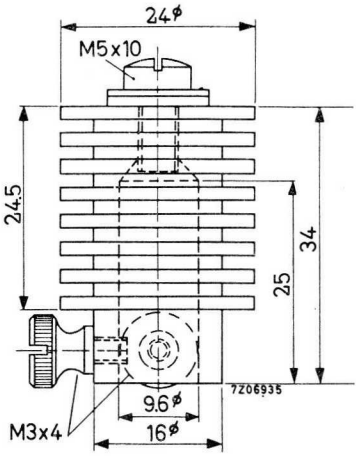
Material: brass, silver plated

ANODE CONNECTOR



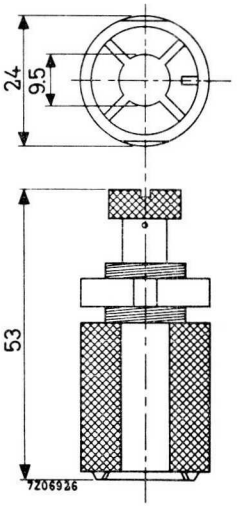
Material: brass, nickel plated

ANODE CONNECTOR



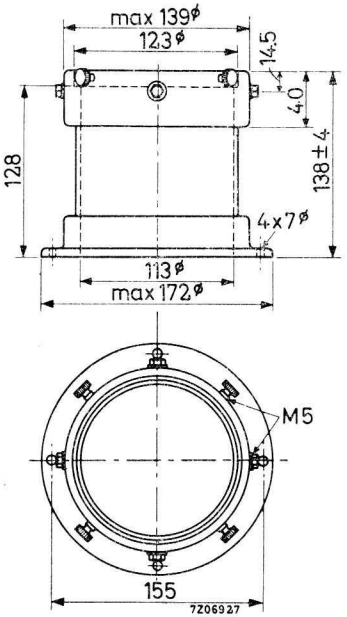
Material: brass, nickel plated

FILAMENT CONNECTOR



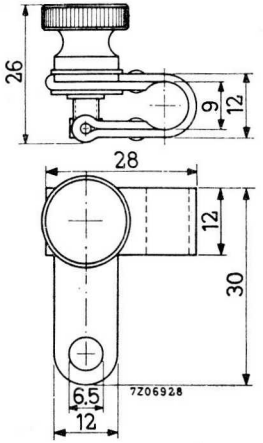
Material: brass, silver plated

INSULATING PEDESTAL



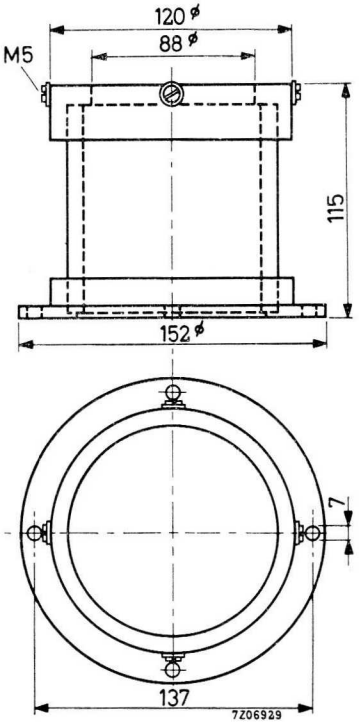
Material: Ceramic

FILAMENT CONNECTOR



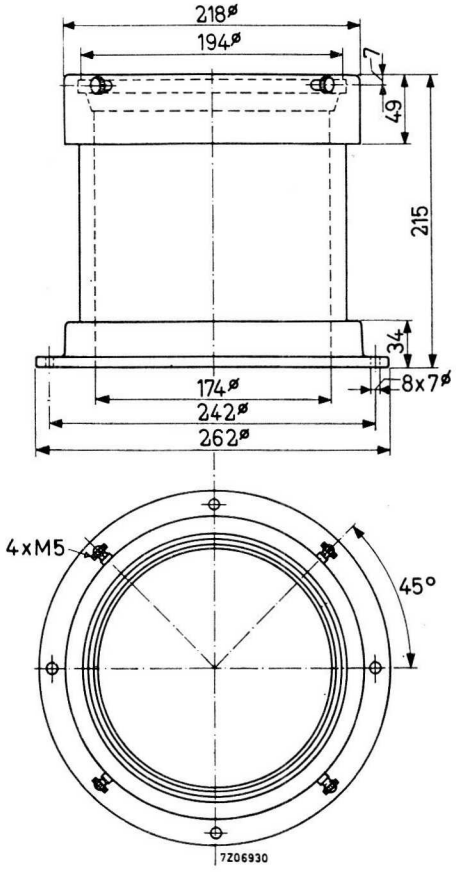
Material: brass, silver plated

INSULATING PEDESTAL



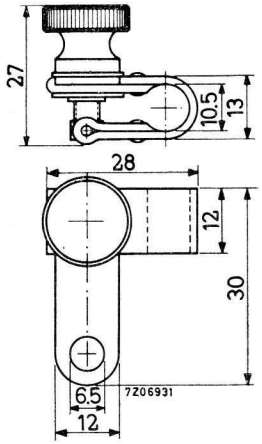
Material: ceramic

INSULATING PEDESTAL



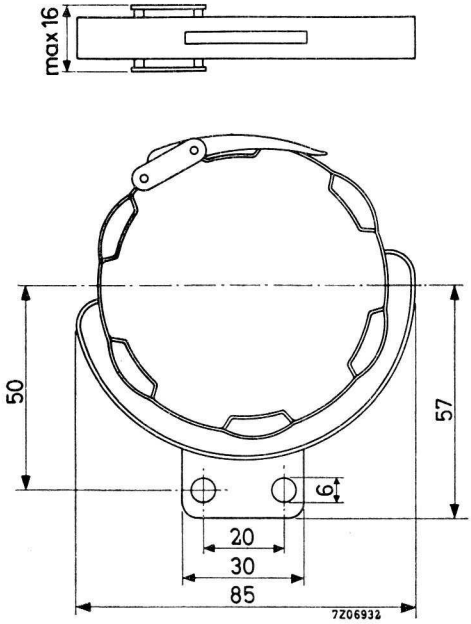
Material: ceramic

FILAMENT CONNECTOR



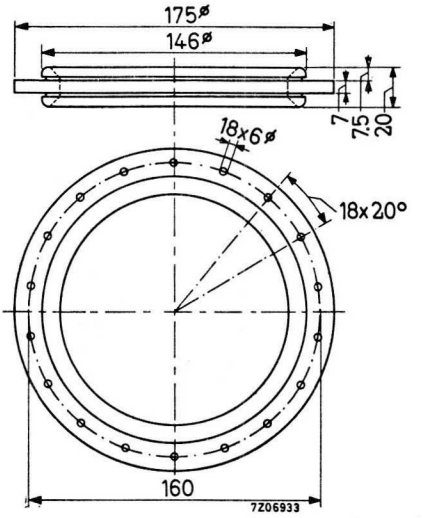
Material: brass, silver plated

GRID CONNECTOR



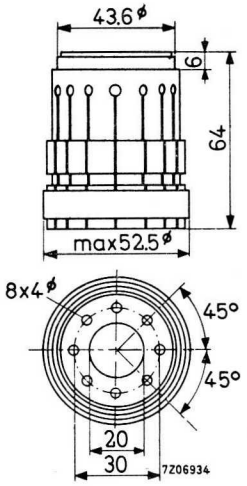
Material: brass, silver plated

GRID AND ANODE CONNECTOR



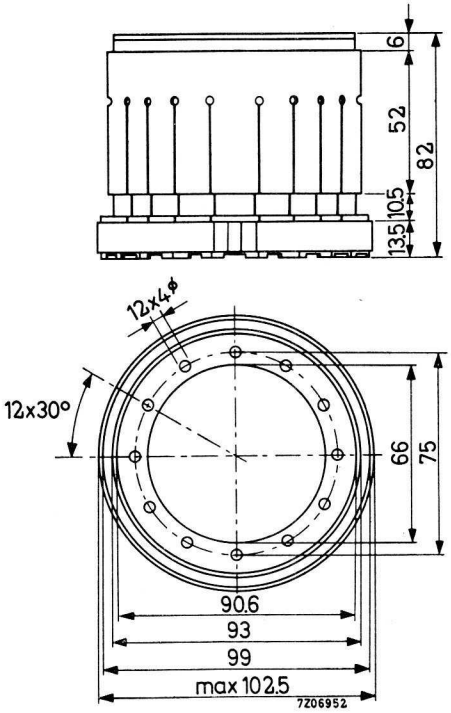
Material: brass, silver plated

FILAMENT CONNECTOR



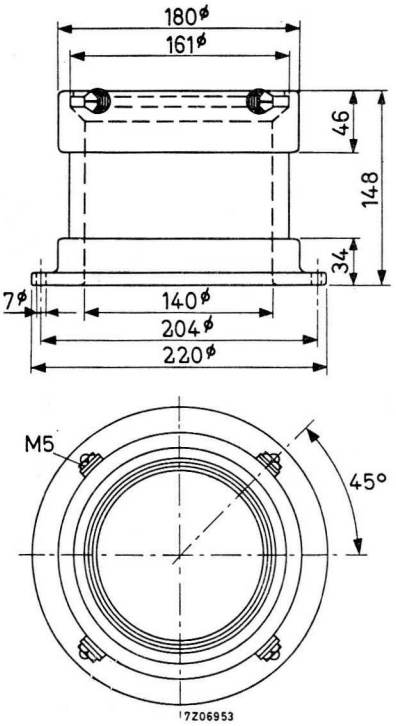
Material: brass, silver plated

FILAMENT CONNECTOR



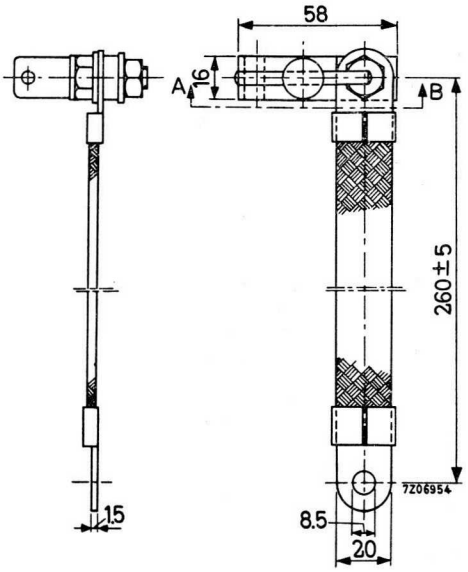
Material: brass, silver plated

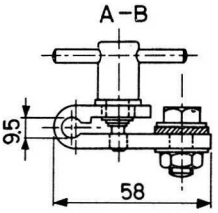
INSULATING PEDESTAL



Material: ceramic

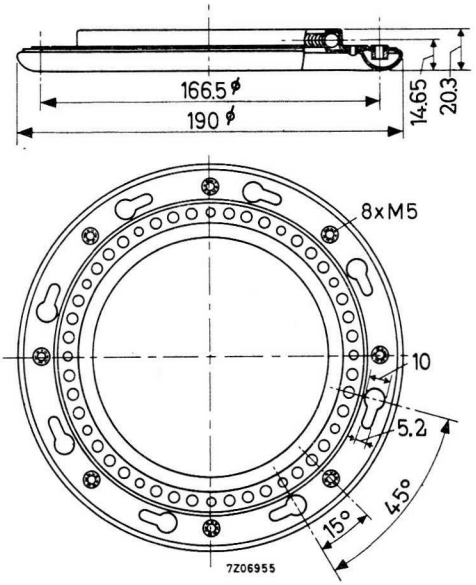
FILAMENT CONNECTOR WITH CABLE





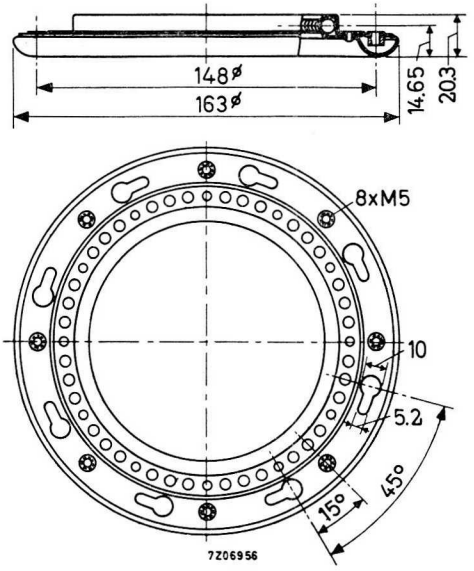
Material: cable - twined copper
connector - brass, nickel plated

GRID CONNECTOR



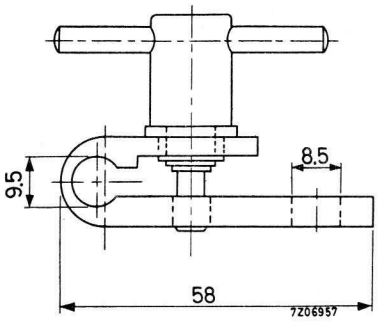
Material: brass, silver plated

GRID CONNECTOR



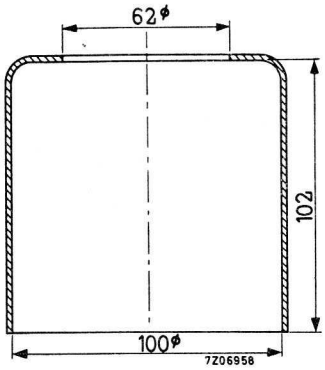
Material: brass, silver plated

ANODE CONNECTOR



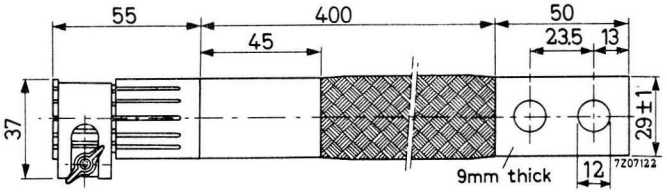
Material: brass, nickel plated

CHIMNEY

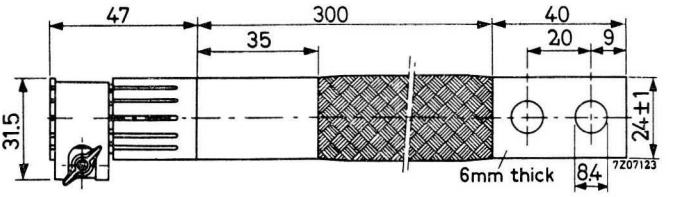


Material: glass

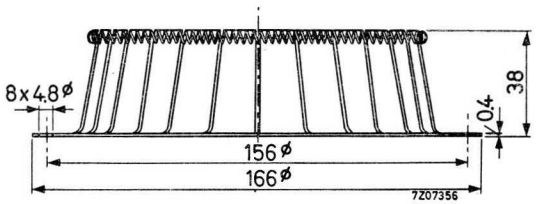
FILAMENT CONNECTOR WITH CABLE



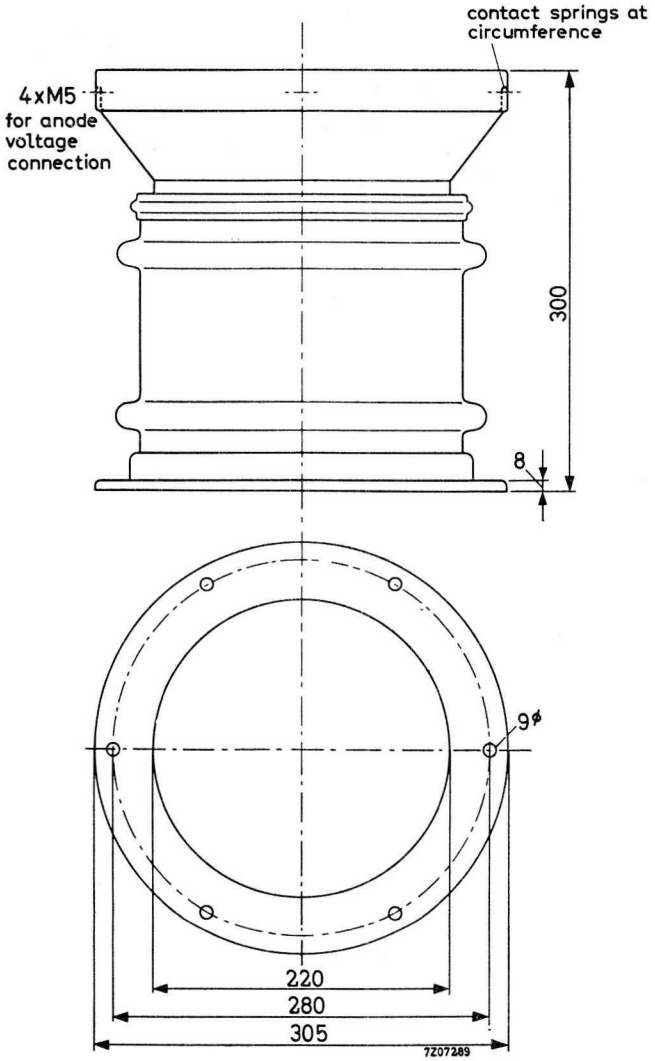
FILAMENT CONNECTOR WITH CABLE



GRID CONNECTOR



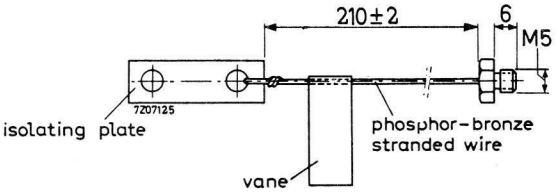
INSULATING PEDESTAL



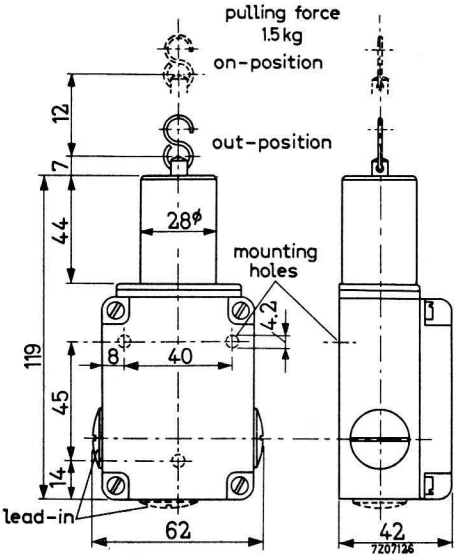
Net weight 9.2 kg

7Z2 8153

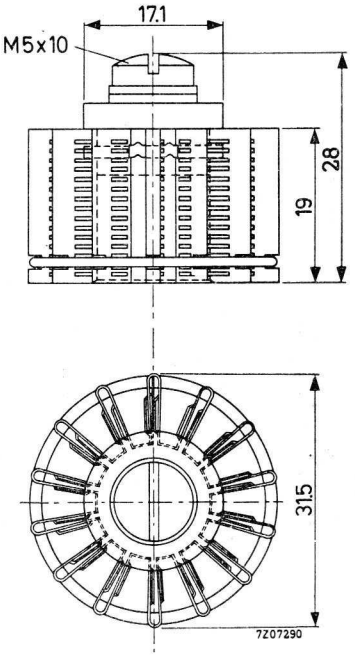
FUSE


210±2
6
M5
7Z07125
isolating plate
phosphor-bronze
stranded wire
vane

PULL SWITCH FOR TUBE CUT-OUT

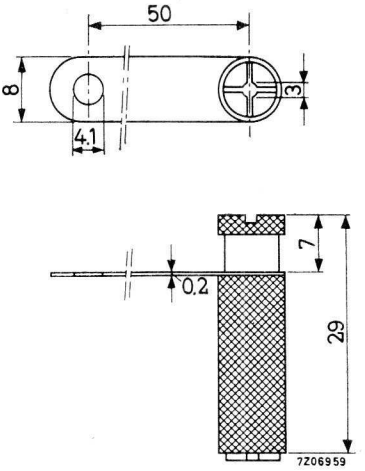


ANODE CONNECTOR



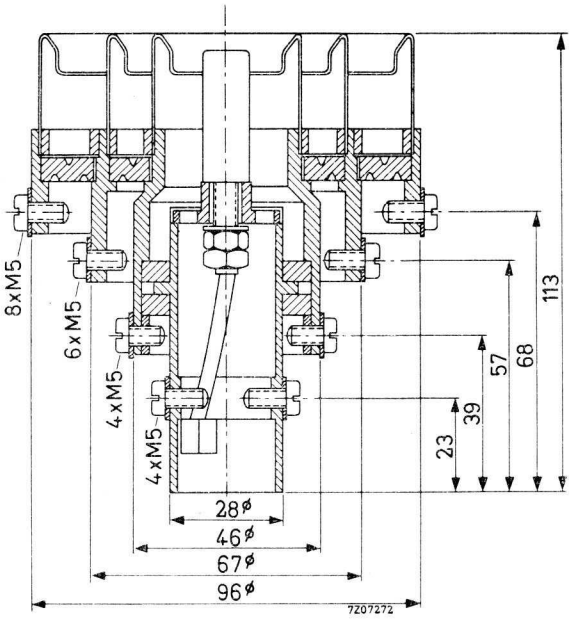
Material: brass, nickel plated

ANODE CONNECTOR



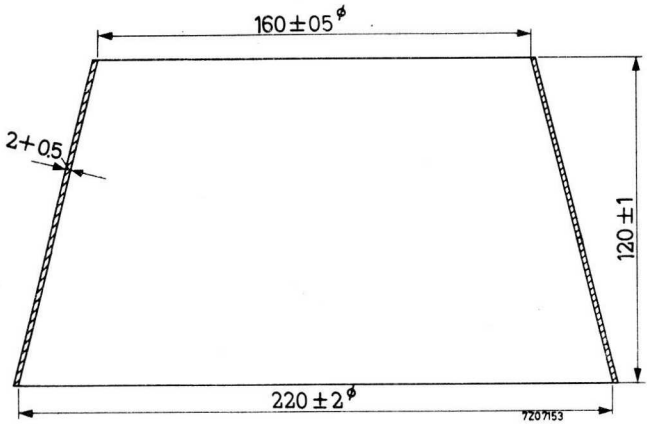
Material: brass, silver plated

TUBE SOCKET

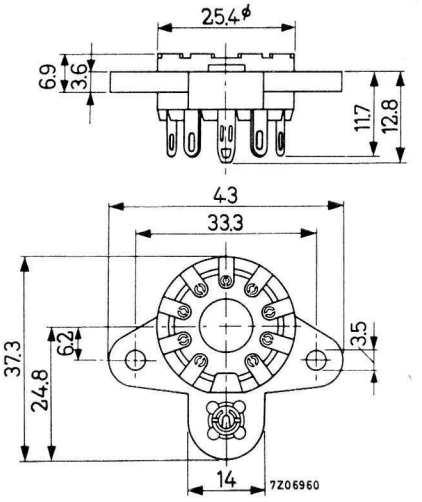


Material; synthetic resin insulating material
silver plated contacts

CHIMNEY

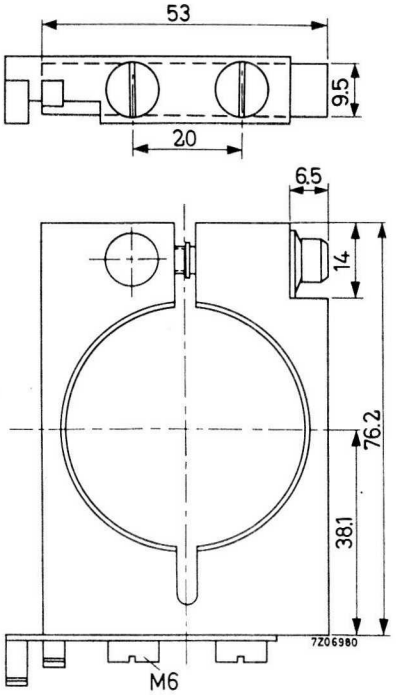


TUBE SOCKET FOR MAGNOVAL BASES



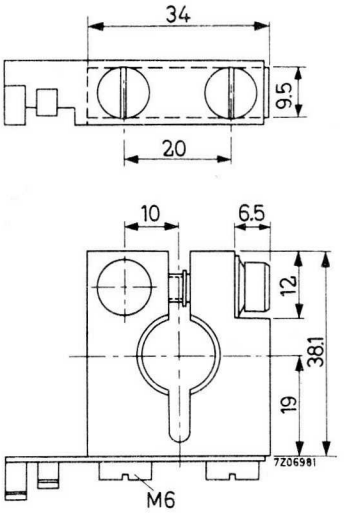
Material: synthetic resin insulating material
9 silver plated cup-shaped contacts

GRID CONNECTOR



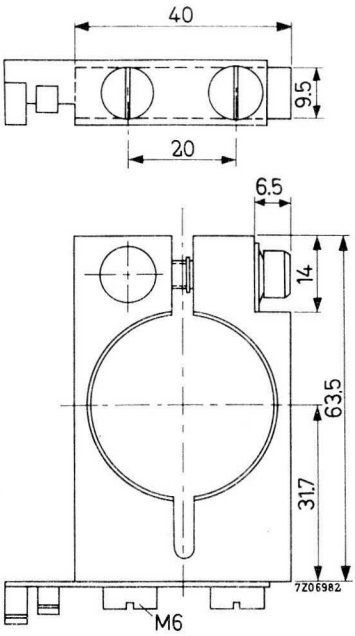
Material: brass, silver plated

FILAMENT CONNECTOR



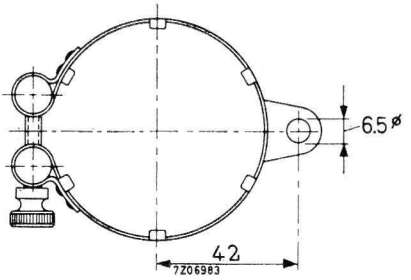
Material: brass, nickel plated

FILAMENT CONNECTOR



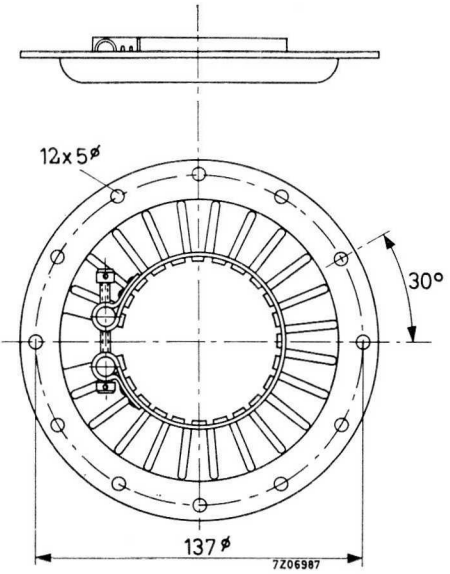
Material: brass, nickel plated

GRID CONNECTOR



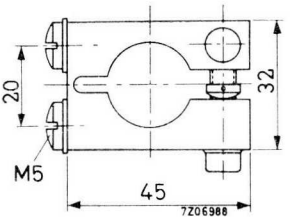
Material: brass, silver plated

GRID CONNECTOR



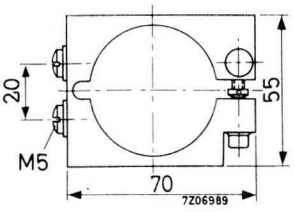
Material: brass, silver plated

FILAMENT CONNECTOR



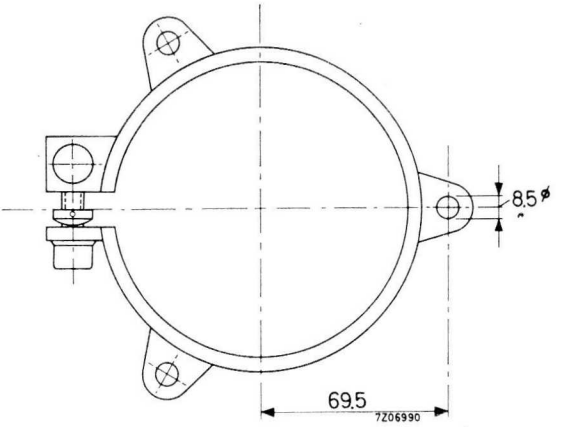
Material: brass, nickel plated

FILAMENT CONNECTOR



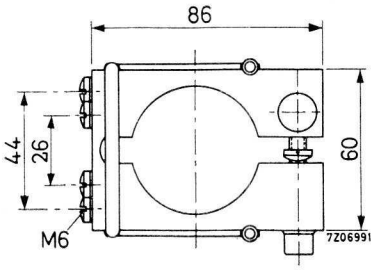
Material: brass, nickel plated

GRID CONNECTOR



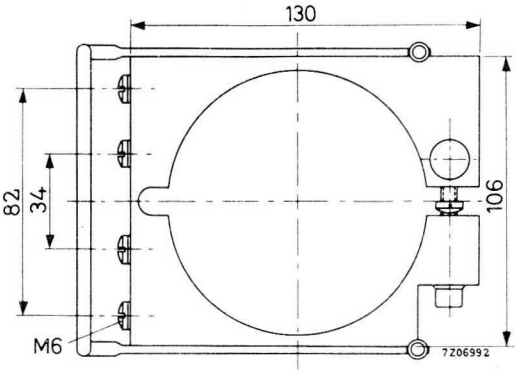
Material: brass, silver plated

FILAMENT CONNECTOR



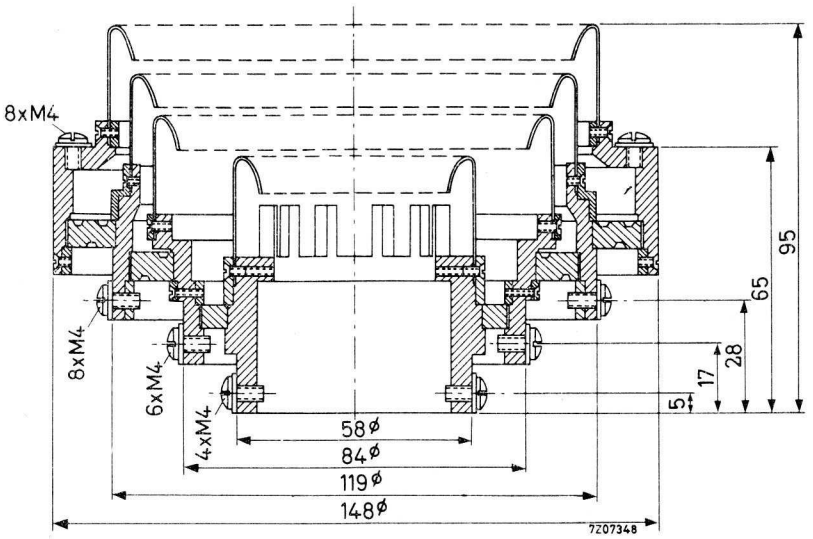
Material: brass, nickel plated

FILAMENT CONNECTOR



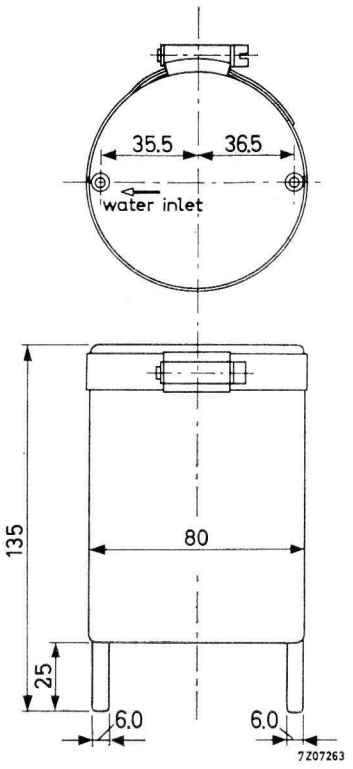
Material: brass, nickel plated

TUBE SOCKET FOR COAXIAL TUBES



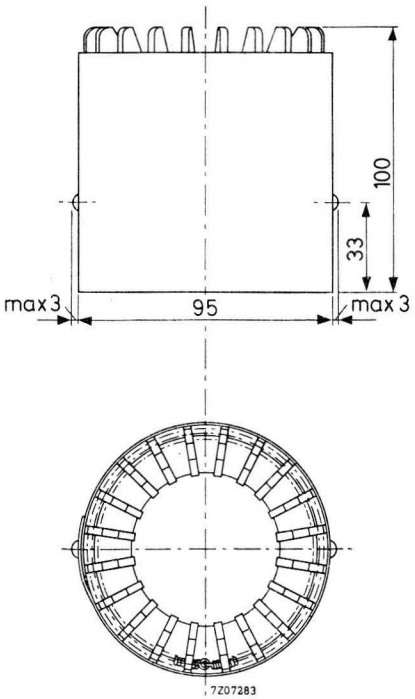
Material: teflon insulating material
silver plated contact springs

WATER JACKET



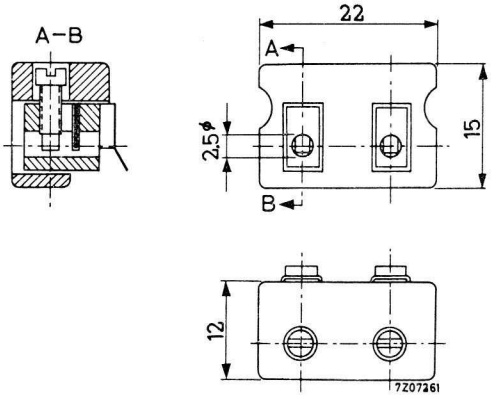
Net weight 0.25 kg

COOLER HOUSING FOR AIR COOLING

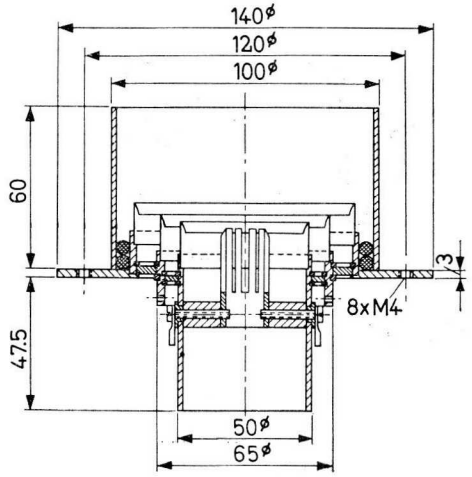


Net weight 0.3 kg

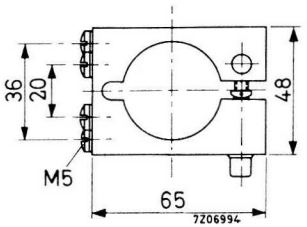
CONNECTOR FOR IGNITOR AND AUXILIARY ELECTRODE



TUBE SOCKET FOR COAXIAL TRIODES

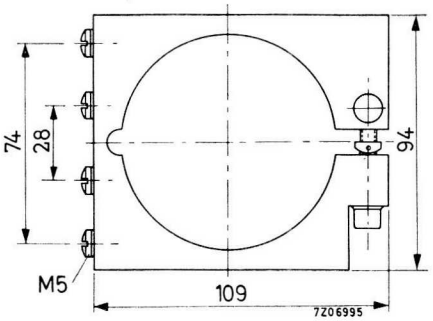


FILAMENT CONNECTOR



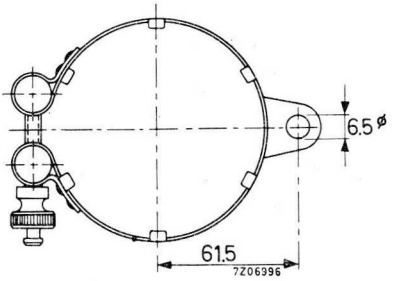
Material: brass, nickel plated

FILAMENT CONNECTOR



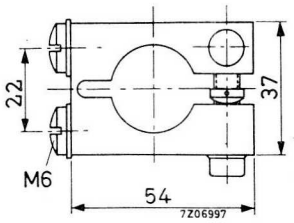
Material: brass, nickel plated

GRID CONNECTOR



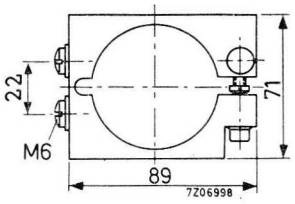
Material: brass, silver plated

FILAMENT CONNECTOR



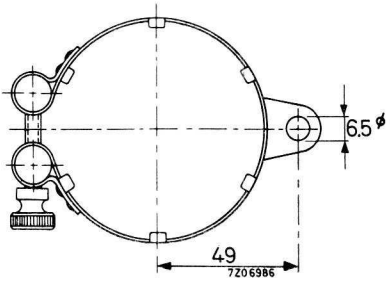
Material: brass, nickel plated

FILAMENT CONNECTOR



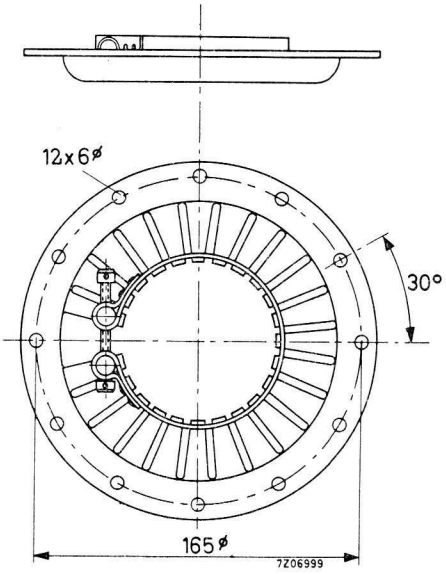
Material: brass, nickel plated

GRID CONNECTOR



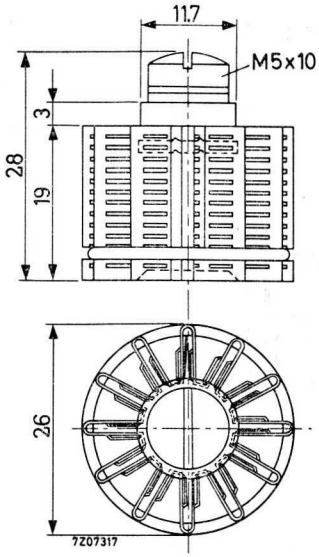
Material: brass, silver plated

GRID CONNECTOR

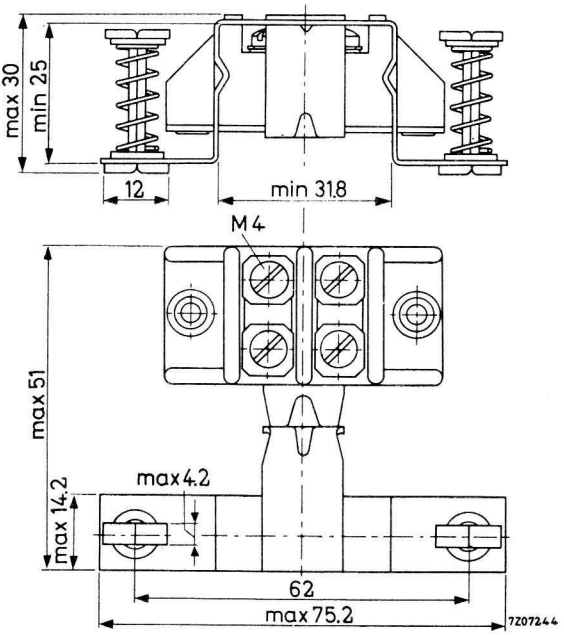


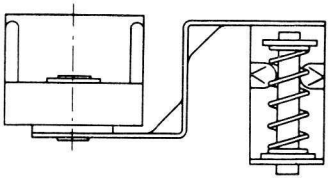
Material: brass, silver plated

ANODE CONNECTOR

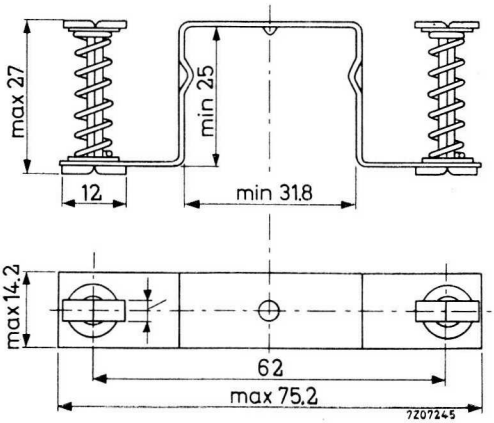


STRAP FOR THERMOSTAT

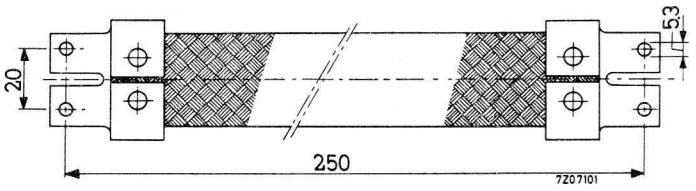




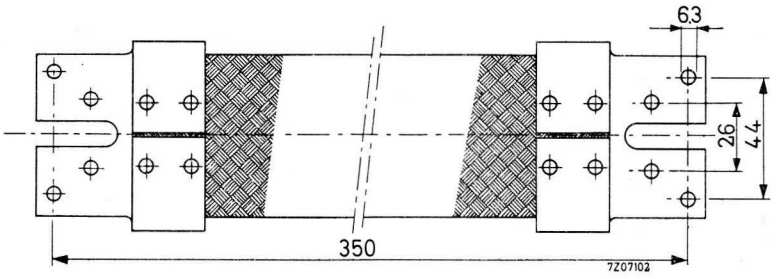
STRAP FOR THERMOSTAT



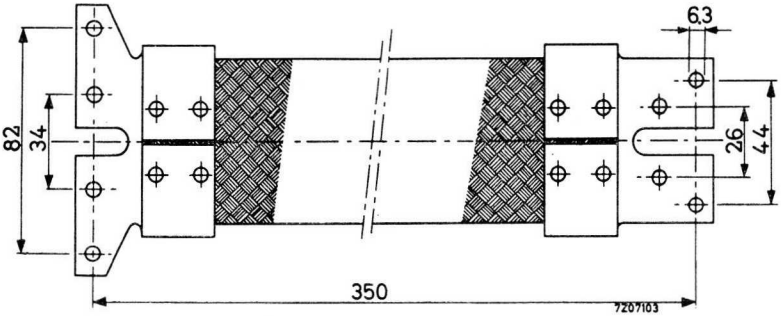
FILAMENT CABLE
TO BE USED WITH 40692 AND 40693



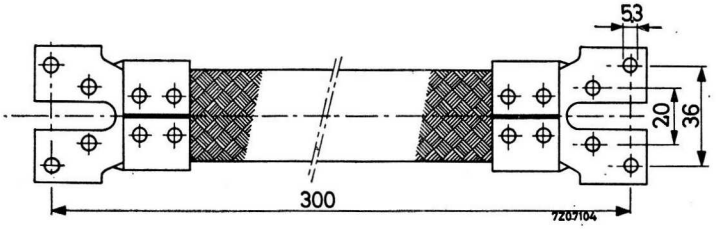
FILAMENT CABLE
TO BE USED WITH 40695



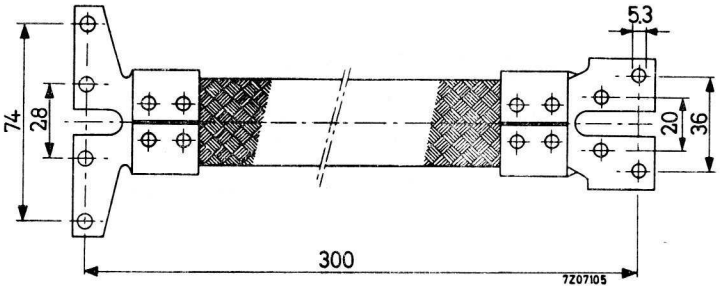
FILAMENT CABLE
TO BE USED WITH 40696



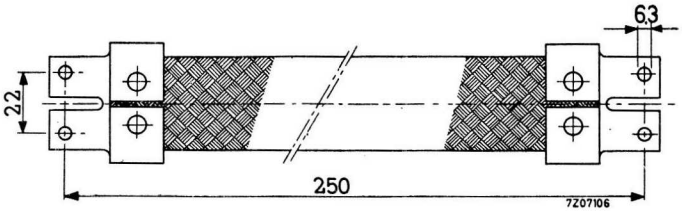
FILAMENT CABLE
TO BE USED WITH 40705



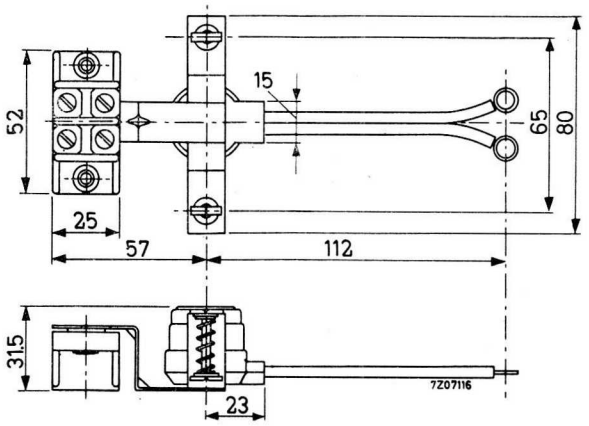
FILAMENT CABLE
TO BE USED WITH 40706



FILAMENT CABLE
TO BE USED WITH 40708 AND 40709



WATER SAVING THERMOSTAT



The thermostat has a normally open contact which closes at a typical plate temperature of 35 $\pm$3 °C and reopens at 30 $\pm$3 °C

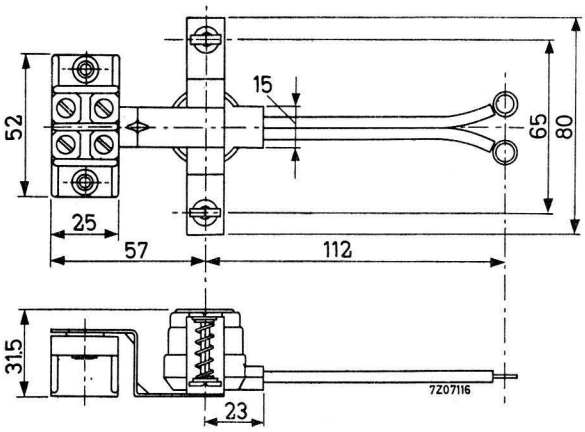
Contact ratings

30	V_{dc}	10	A
125	V_{rms}	10	A
250	V_{rms}	8	A
600	V_{rms}	0.5	A

Max. voltage between ignitron and thermostat 600 V_{rms}

55306

PROTECTING THERMOSTAT



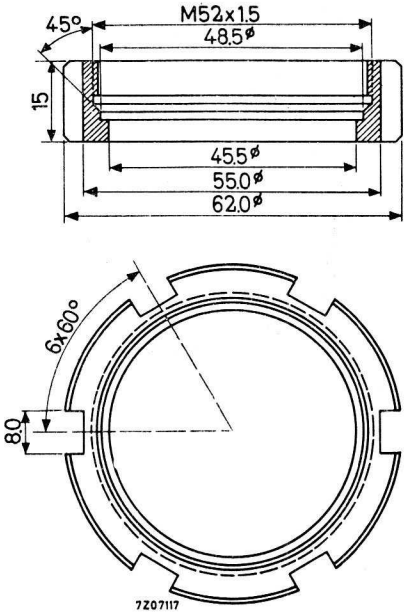
The thermostat has a normally closed contact which opens at a typical plate temperature of 52 $\pm$3 °C and recloses at 41 $\pm$3 °C

Contact ratings

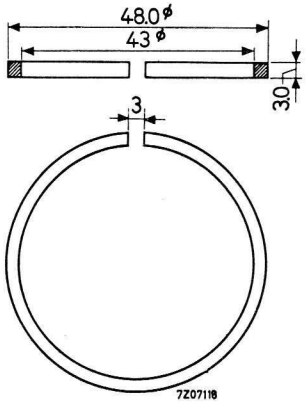
30	V_{dc}	10	A
125	V_{rms}	10	A
250	V_{rms}	8	A
600	V_{rms}	0.5	A

Max. voltage between ignitron and thermostat 600 V_{rms}

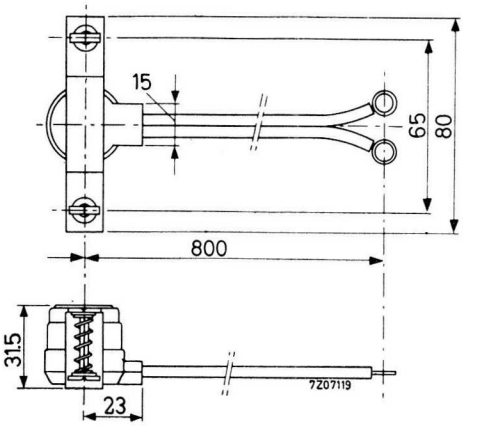
CAP NUT



SPRING RING



WATER SAVING THERMOSTAT



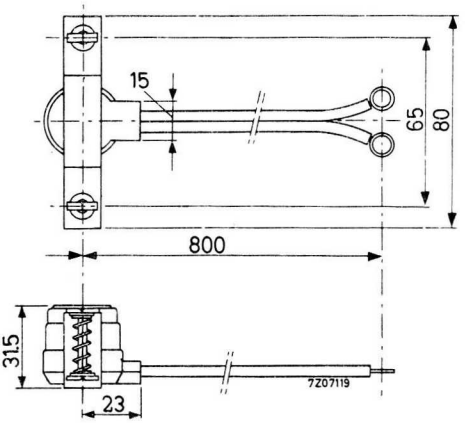
The thermostat has a normally open contact which closes at a typical plate temperature of 35 ± 3 °C and reopens at 30 ±3 °C

Contact ratings

30	V_{dc}	10	A
125	V_{rms}	10	A
250	V_{rms}	8	A
600	V_{rms}	0.5	A

Max. voltage between ignitron and thermostat 600 V_{rms}

PROTECTING THERMOSTAT



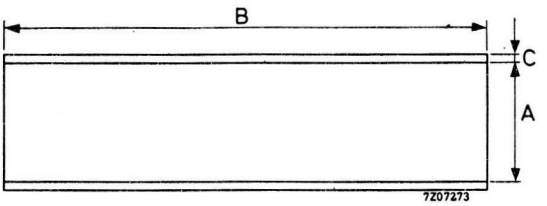
The thermostat has a normally closed contact which opens at a typical plate temperature of 52 $\pm$3 °C and recloses at 41 $\pm$3 °C

Contact ratings

30	V_{dc}	10	A
125	V_{rms}	10	A
250	V_{rms}	8	A
600	V_{rms}	0.5	A

Max. voltage between ignitron and thermostat 600 V_{rms}

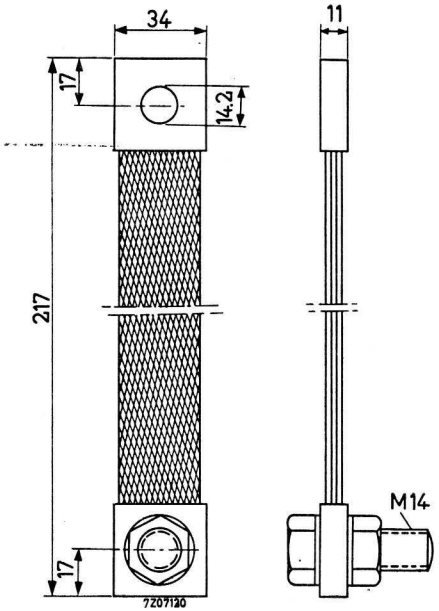
MU-METAL CYLINDRICAL SHIELDS



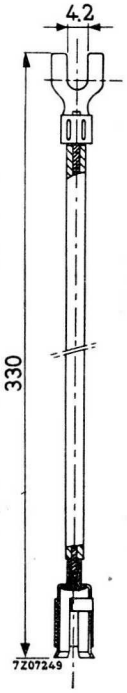
Dimensions

Type No.	A (mm)	B (mm)	C (mm)
56127	42 + 1	90 ± 1	1
56128	57 + 1	90 ± 1	1
56129	132 + 1	150 ± 1	1
56130	57 + 1	110 ± 1	1
56131	75 + 1	110 ± 1	1
56132	240 + 1	300 ± 1	1
56133	145 + 1	250 ± 1	1
56134	21 + 1	80 ± 1	1
56135	78 + 1	130 ± 1	1
56136	28 + 1	110 ± 1	1
56138	28 + 1	80 ± 1	1

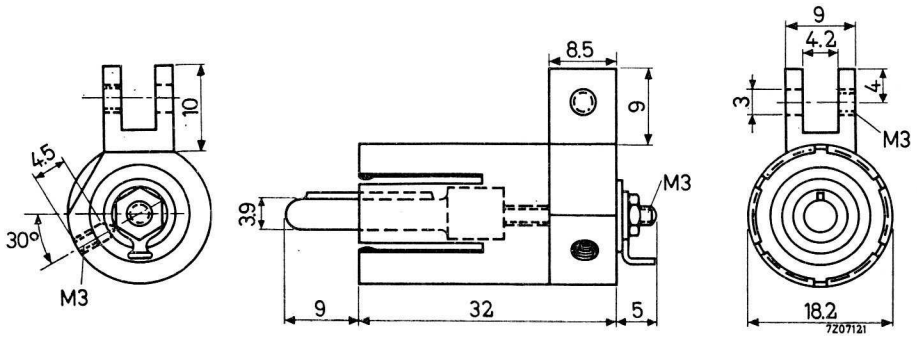
ANODE CONNECTOR



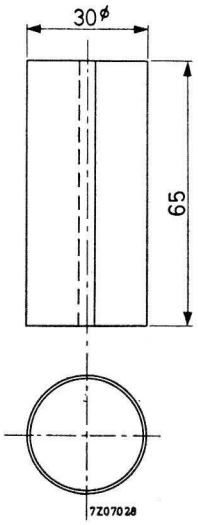
IGNITOR CONNECTOR



CATHODE CONNECTOR



MU-METAL SCREEN



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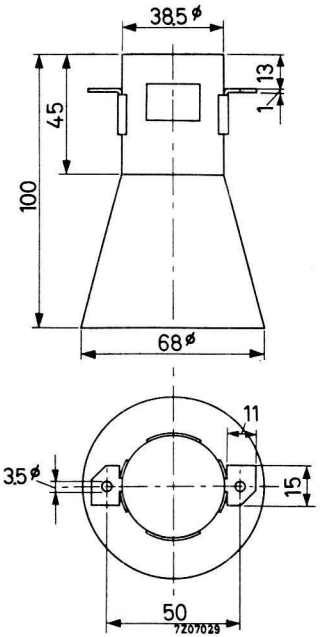

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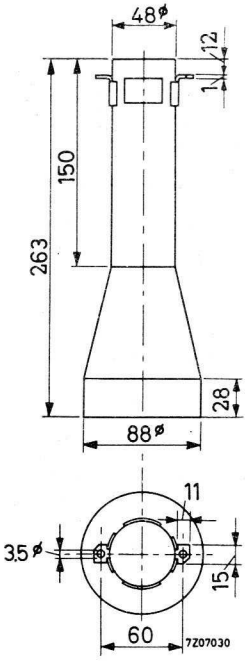

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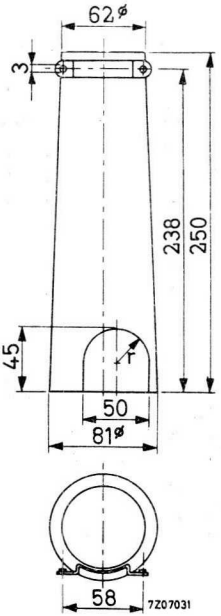

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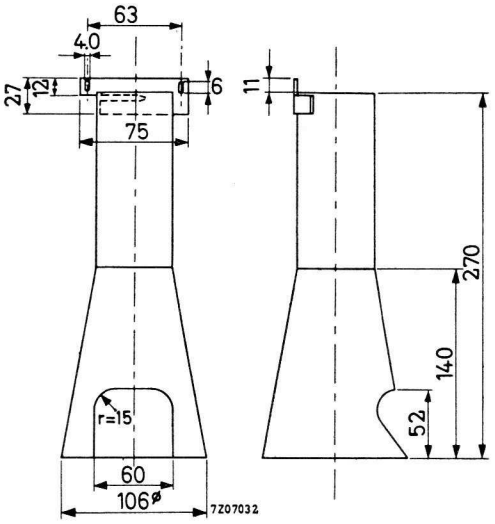

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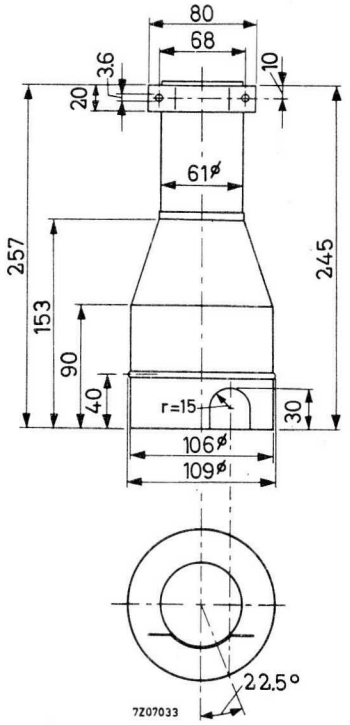

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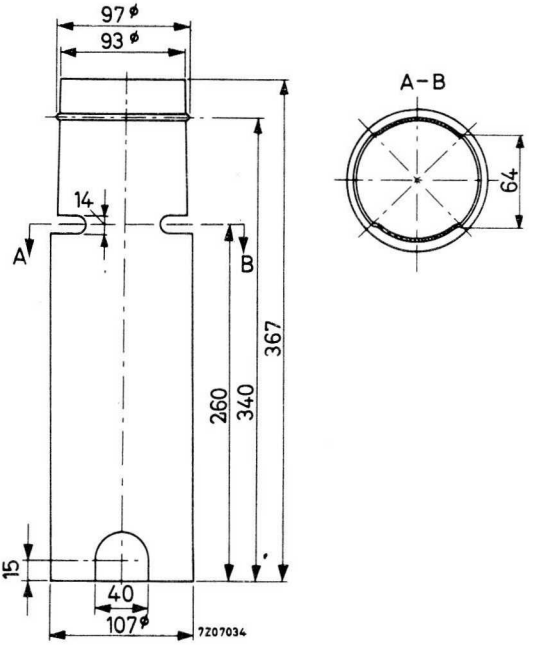

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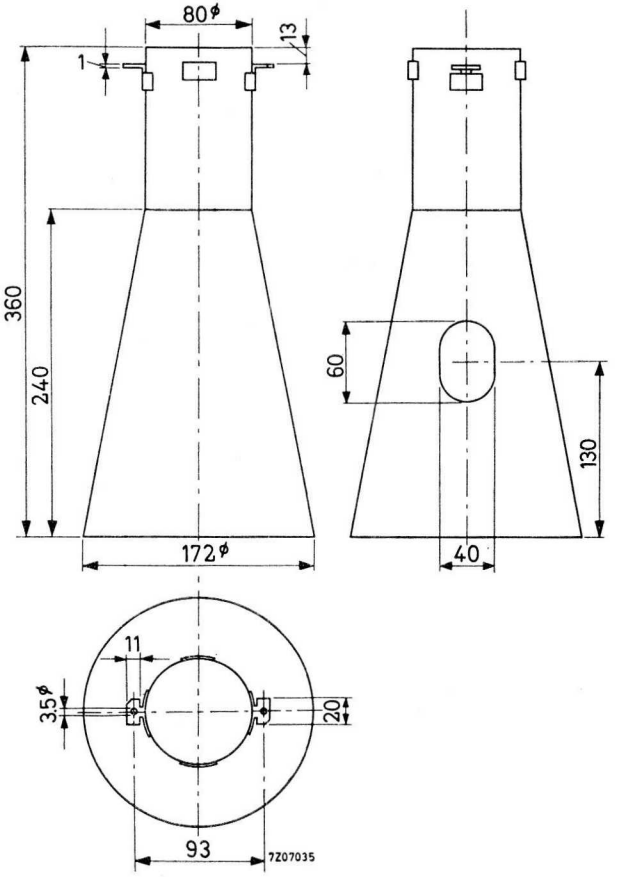

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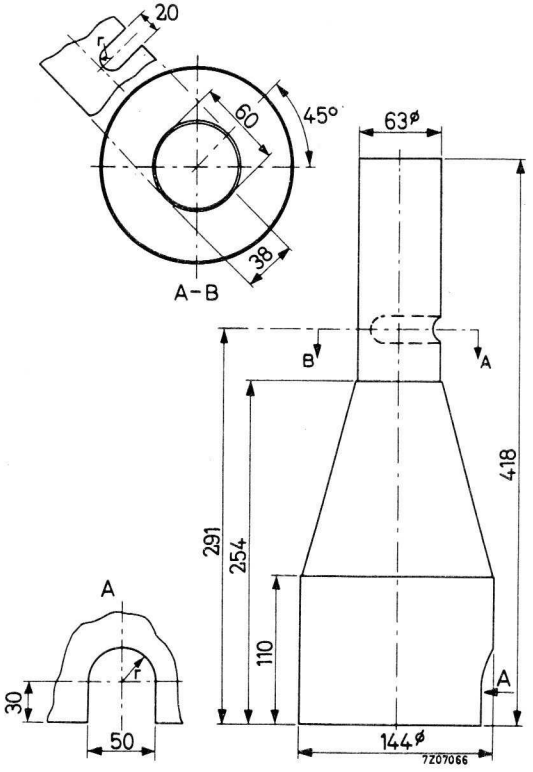

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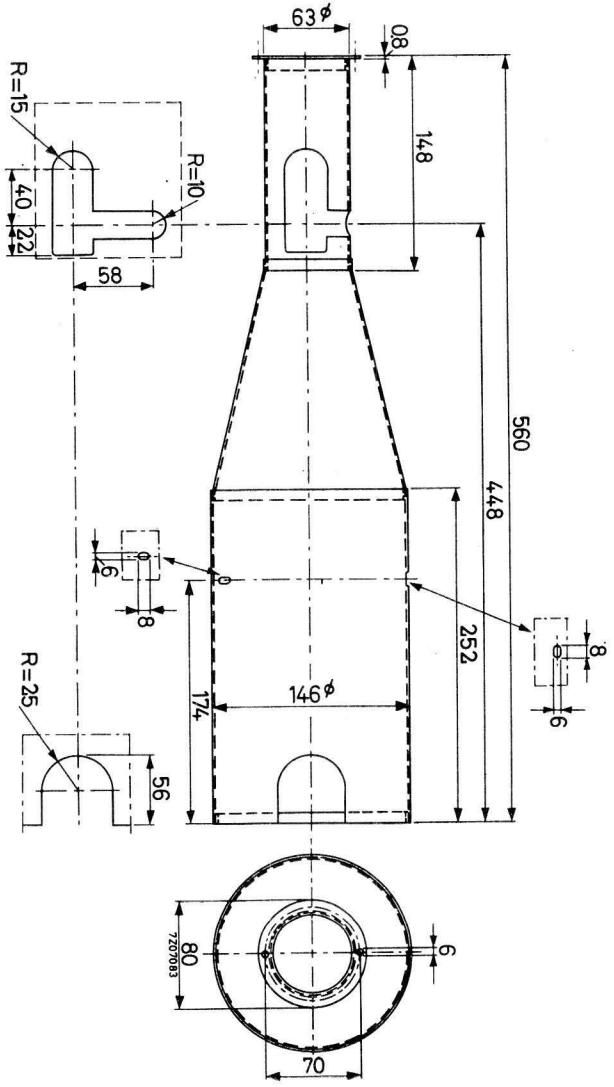

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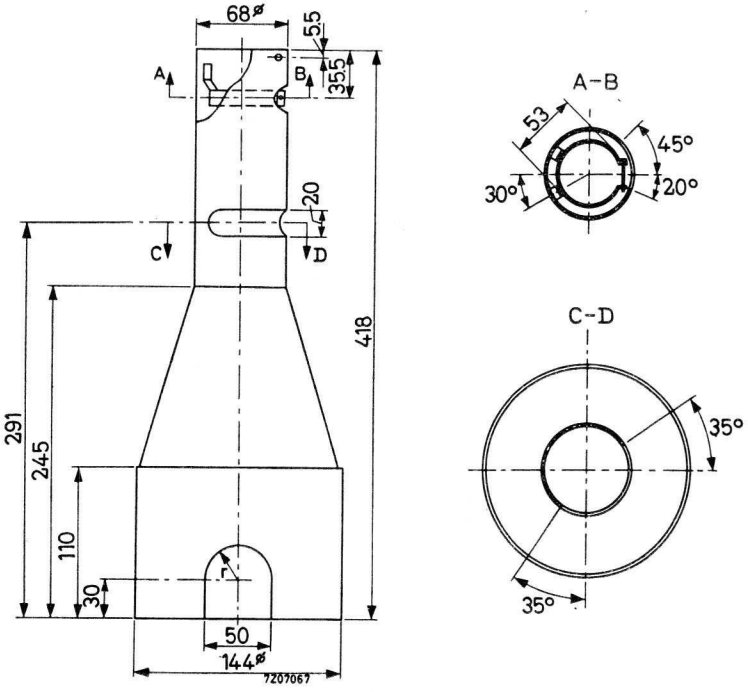
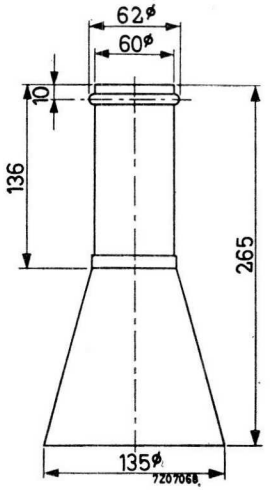
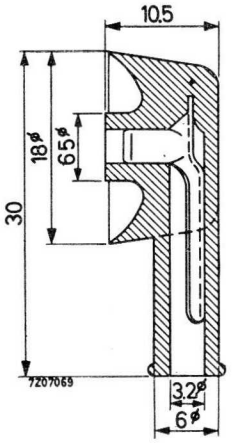
MU-METAL SCREEN



MU-METAL SCREEN

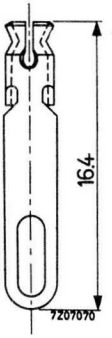


FINAL ACCELERATOR CONTACT CONNECTOR

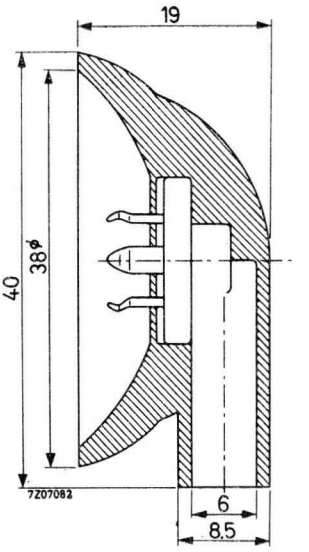


Material: cadmium plated spring contact
rubber insulating material

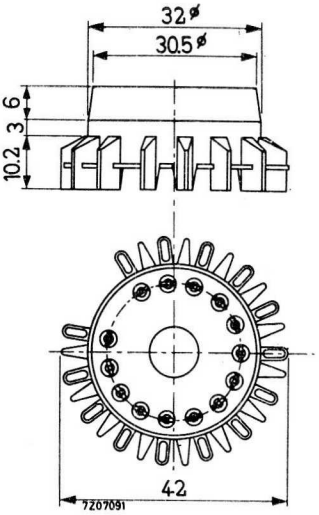
SIDE CONTACT CONNECTOR



FINAL ACCELERATOR CONTACT CONNECTOR



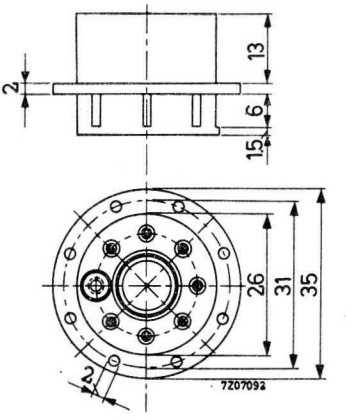
TUBE SOCKET FOR 14-PIN BASES



Material: synthetic resin insulating material

14 gold plated fork shaped contacts

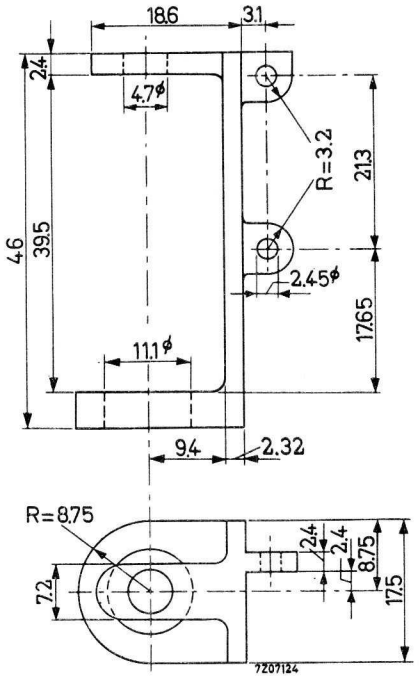
TUBE SOCKET FOR 7-PIN BASES



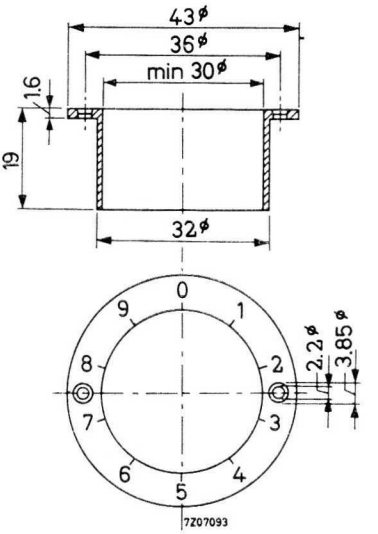
Material: synthetic resin insulating material

7 contacts, guiding hole and central hole

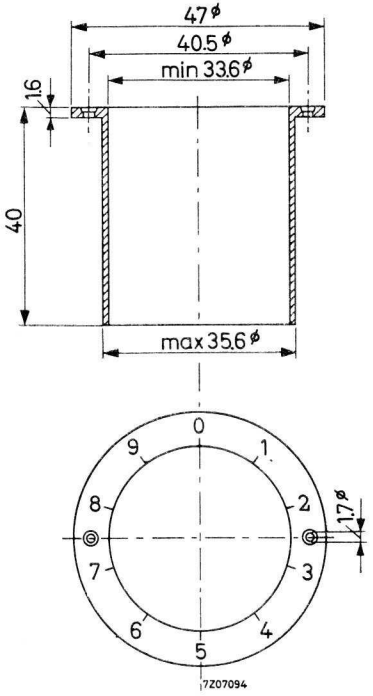
MOUNTING BRACKET FOR INDICATOR TUBES



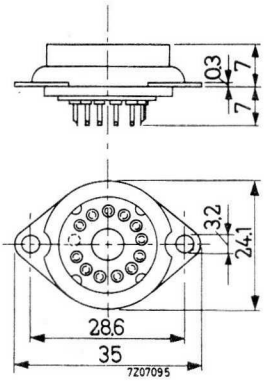
ESCUTCHEON



ESCUTCHEON



TUBE SOCKET FOR 12-PIN BASES



Material: synthetic resin insulating material

12 gold plated cup-shaped contacts

Printed in Holland

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