

## E2V Technologies

### Accessories for Hydrogen Thyratrons

The following top cap connectors, sockets, cooling modules and resistor box are available for use with E2V Technologies hydrogen thyratrons.

Type	Outline	Description
<b>MA91</b>	Page 2	A five-contact (B5F) socket with flexible leads and terminal tags, and mounted on an insulating base plate. It provides a conversion from base to flange type mounting.
<b>MA92</b>	Page 3	Similar to MA91 but incorporates an RC network, and is designed for use with tetrodes such as CX1140 and where a single pulse drive and flying lead connections are required.
<b>MA94</b>	Page 3	B5F socket with 3.750 inch diameter mounting flange.
<b>MA153</b>	Page 4	Flange-mounted B5F socket with a base clamp.
<b>MA179</b>	Page 4	MA92 with a base clamp.
<b>MA356A</b>	Page 5	UX4 socket.
<b>MA357</b>	Page 5	B4D socket with base clamp; Tufnol mounting plate.
<b>MA357A</b>	Page 6	B4D socket with Tufnol mounting plate.
<b>MA358</b>	Page 6	Top cap connector for 0.359 inch diameter cap.
<b>MA359†</b>	Page 7	Top cap connector for 0.566 inch diameter cap.
<b>MA360A†</b>	Page 7	Lightweight, heat-dissipating, anti-corona top cap connector for 0.566 inch diameter cap.
<b>MA942A</b>	Page 8	Resistor box to set gas pressure in 'X' type thyratrons.
<b>MA2129A</b>	Page 8	Large area heat sink for anode connection of CX1635, CX1735, CX1835 and CX1935 series.
<b>MA2161A, MA2161B</b>	Page 9	Cooling modules for large size metal envelope thyratrons. The 'A' has a 110 V fan, the 'B' has a 220 V fan.
<b>MA2235A, MA2235B</b>	Page 10	Cooling modules for medium size metal envelope thyratrons. The 'A' has a 110 V fan, the 'B' has a 220 V fan.

† The MA360A (weight 35 g) has been designed primarily for heat dissipation and should be used when the thyatron is intended for operation under conditions where heat dissipation and corona problems are encountered. The lightweight connector MA359 (weight 3 g) is recommended where the operating conditions include shock and vibration, but only if the heat dissipation is low, otherwise air cooling is necessary.

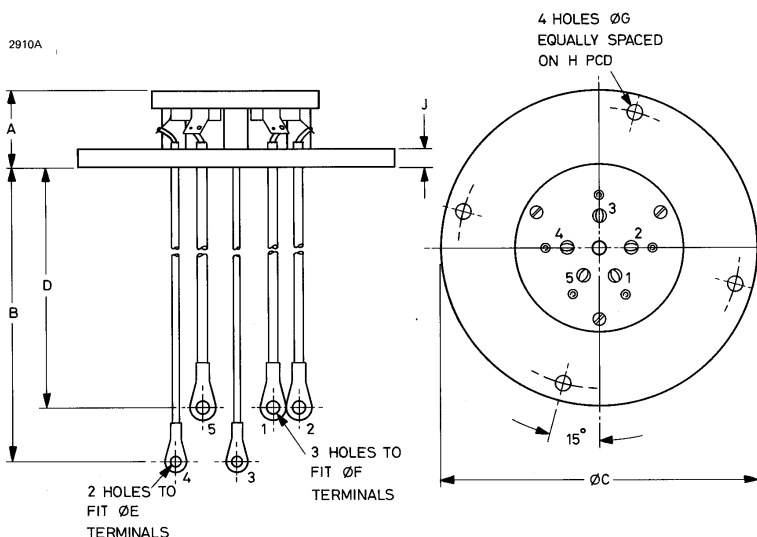
Tube Type	Top Cap Connector	Socket
6587	MA359	MA357, MA357A
8503	MA359	MA357, MA357A
CX1140	MA360A†	MA91*, MA92*, MA94, MA153, MA179*
CX1159	MA360A†	MA91*, MA92*, MA94, MA153, MA179*
CX1191	MA359, MA360A†	MA357, MA357A
CX1191A	MA359, MA360A†	MA357, MA357A
CX1191D	MA359, MA360A†	MA357, MA357A
CX1550	MA358	MA356A
FX227	MA358	MA356A
FX297	MA360A†	MA91, MA94, MA153
FX2503	Special, supplied with tube	MA91, MA94, MA153
FX2505	MA359	MA357, MA357A
FX2519A, FX2519B/5949A	MA360A†	MA91, MA94, MA153
FX2525	MA359	MA356A
FX2530/6777	MA358	MA356A
FX2535	MA358	MA356A

\* For conversion applications

† See footnote, page 1.

## SOCKET ASSEMBLY MA91 (All dimensions without limits are nominal)

See pages 1 and 2 for further details.



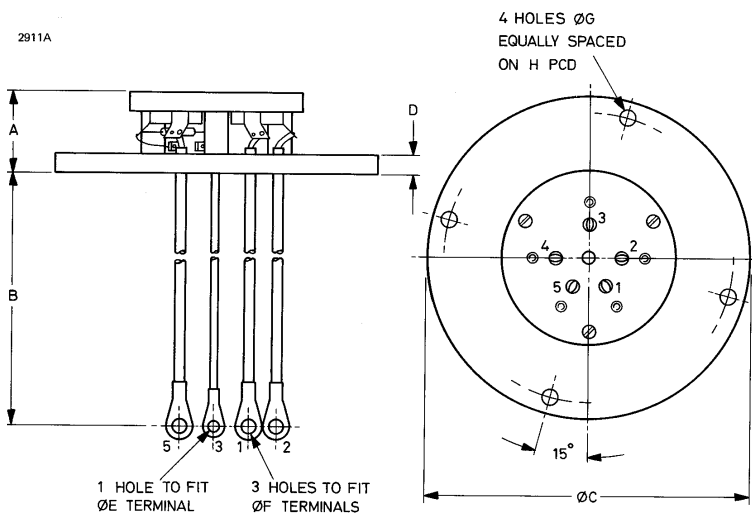
Ref	Millimetres	Inches
A	38.1	1.500
B	279.4 min	11.000 min
C	152.40 ± 0.25	6.000 ± 0.010
D	254.0 min	10.000 min
E	5.0	0.197
F	6.0	0.236
G	7.92	0.312
H	135.7 ± 0.5	5.344 ± 0.020
J	9.53	0.375

Inch dimensions have been derived from millimetres.

Lead	Colour
1	Yellow (heater)
2	Black (cathode)
3	White (grid 2)
4	Blue (grid 1)
5	Yellow (heater)

## SOCKET ASSEMBLY MA92 (All dimensions without limits are nominal)

See pages 1 and 2 for further details.



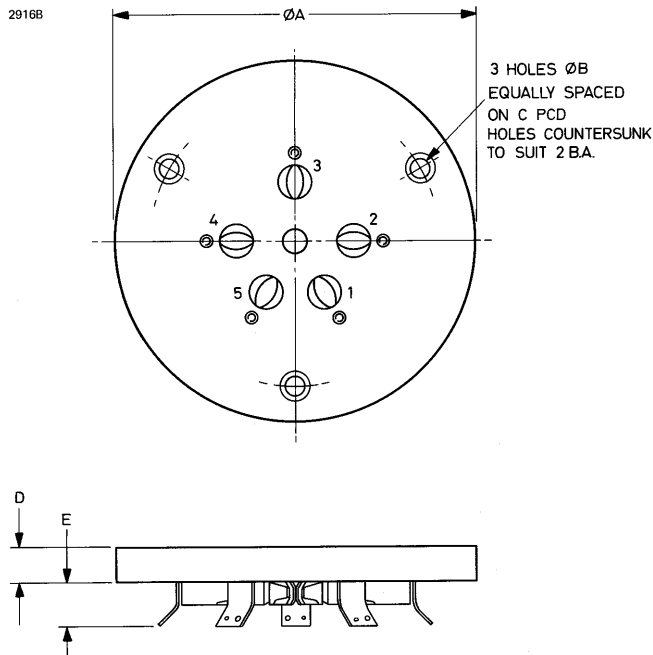
Ref	Millimetres	Inches
A	38.1	1.500
B	203.2 min	8.000 min
C	$152.40 \pm 0.25$	$6.000 \pm 0.010$
D	$9.53 \pm 0.79$	$0.375 \pm 0.031$
E	5.0	0.197
F	6.0	0.236
G	7.92	0.312
H	$135.7 \pm 0.5$	$5.344 \pm 0.020$

Inch dimensions have been derived from millimetres.

Lead	Colour
1	Yellow (heater)
2	Black (cathode)
3	Green (grid)
4	Yellow (heater)

## SOCKET MA94 (All dimensions without limits are nominal)

See pages 1 and 2 for further details.

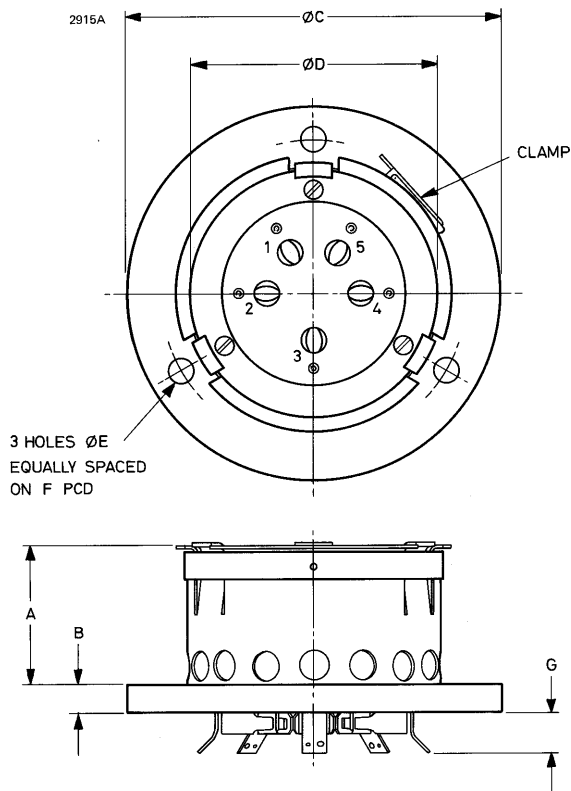


Ref	Millimetres	Inches
A	$95.25 \pm 0.25$	$3.750 \pm 0.010$
B	4.78	0.188
C	$76.20 \pm 0.25$	$3.000 \pm 0.010$
D	$9.53 \pm 0.79$	$0.375 \pm 0.031$
E	12.7 max	0.500 max

Inch dimensions have been derived from millimetres.

## SOCKET ASSEMBLY MA153 (All dimensions without limits are nominal)

See pages 1 and 2 for further details.

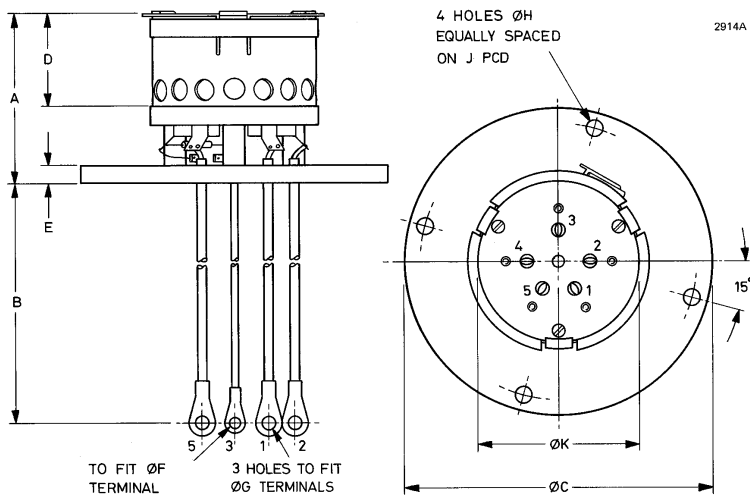


Ref	Millimetres	Inches
A	46.05 ± 0.79	1.813 ± 0.031
B	9.53 ± 0.79	0.375 ± 0.031
C	123.83 ± 0.25	4.875 ± 0.010
D	80.16 ± 0.79	3.156 ± 0.031
E	7.92	0.312
F	101.60 ± 0.25	4.000 ± 0.010
G	12.7 max	0.500 max

Inch dimensions have been derived from millimetres.

## SOCKET ASSEMBLY MA179 (All dimensions without limits are nominal)

See pages 1 and 2 for further details.



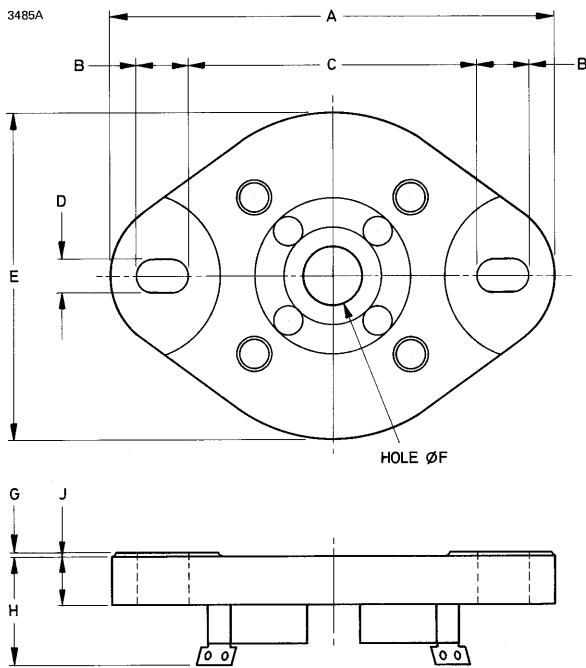
Ref	Millimetres	Inches
A	3.312	84.12
B	203.2 min	8.000 min
C	152.40 ± 0.79	6.000 ± 0.031
D	46.05 ± 0.79	1.813 ± 0.031
E	9.53 ± 0.79	0.375 ± 0.031
F	5.0	0.197
G	6.0	0.236
H	7.92	0.312
J	135.7 ± 0.5	5.344 ± 0.020
K	78.59 ± 0.41	3.094 ± 0.016

Inch dimensions have been derived from millimetres.

Lead	Colour
1	Yellow (heater)
2	Black (cathode)
3	Green (grid)
5	Yellow (heater)

## SOCKET MA356A (All dimensions nominal)

See pages 1 and 2 for further details.

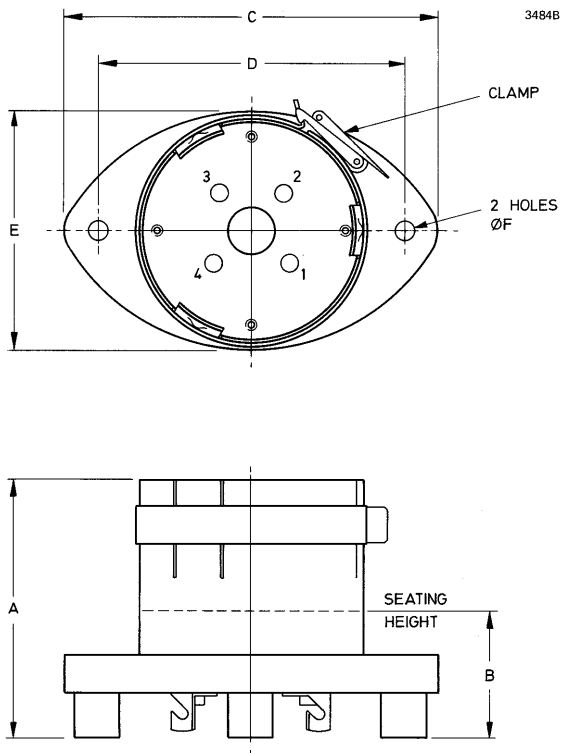


Ref	Millimetres	Inches
A	58.72	2.312
B	6.76	0.266
C	38.1	1.500
D	4.32	0.170
E	42.88	1.688
F	7.92	0.312
G	0.51	0.020
H	14.3	0.563
J	6.35	0.250

Inch dimensions have been derived from millimetres.

## SOCKET ASSEMBLY MA357

See pages 1 and 2 for further details.

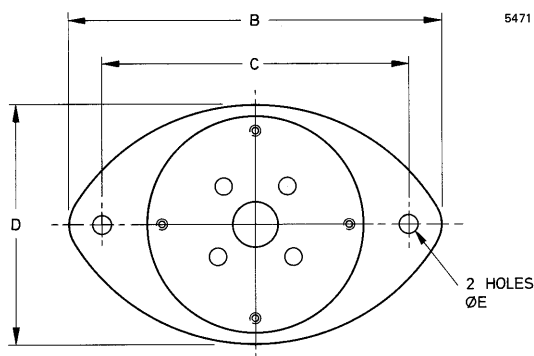


Ref	Millimetres	Inches
A	70.31 max	2.768 max
B	34.59 max	1.362 max
C	101.6 max	4.000 max
D	$80.98 \pm 0.13$	$3.188 \pm 0.005$
E	$63.50 \pm 1.57$	$2.500 \pm 0.062$
F	$5.16 + 0.13$ $- 0.00$	$0.203 + 0.005$ $- 0.000$

Inch dimensions have been derived from millimetres.

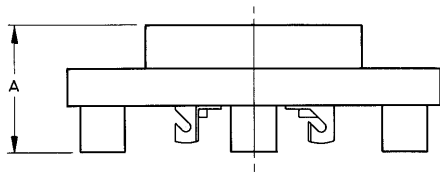
## SOCKET ASSEMBLY MA357A

See pages 1 and 2 for further details.



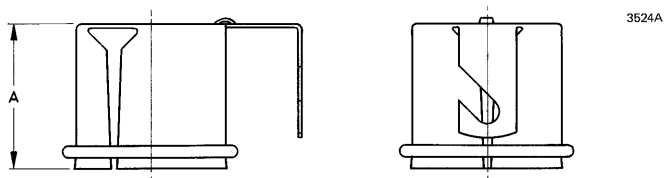
Ref	Millimetres	Inches
A	34.59 max	1.362 max
B	101.6 max	4.000 max
C	$80.98 \pm 0.13$	$3.188 \pm 0.005$
D	$63.50 \pm 1.57$	$2.500 \pm 0.062$
E	$5.16 \begin{matrix} + 0.13 \\ - 0.00 \end{matrix}$	$0.203 \begin{matrix} + 0.005 \\ - 0.000 \end{matrix}$

Inch dimensions have been derived from millimetres.



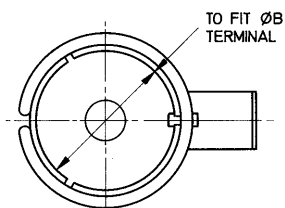
## TOP CAP CONNECTOR MA358 (All dimensions without limits are nominal)

See pages 1 and 2 for further details.



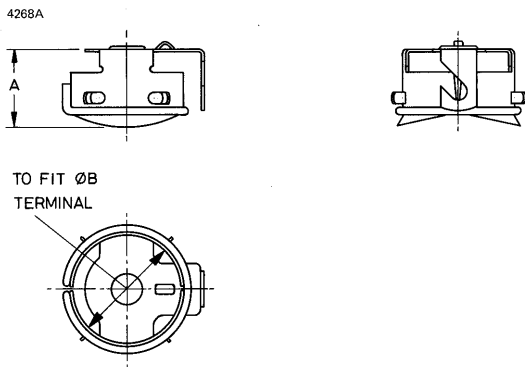
Ref	Millimetres	Inches
A	9.53	0.375
B	9.19 max	0.362 max
	9.04 min	0.356 min

Inch dimensions have been derived from millimetres.



## TOP CAP CONNECTOR MA359 (All dimensions nominal)

See pages 1 and 2 for further details.

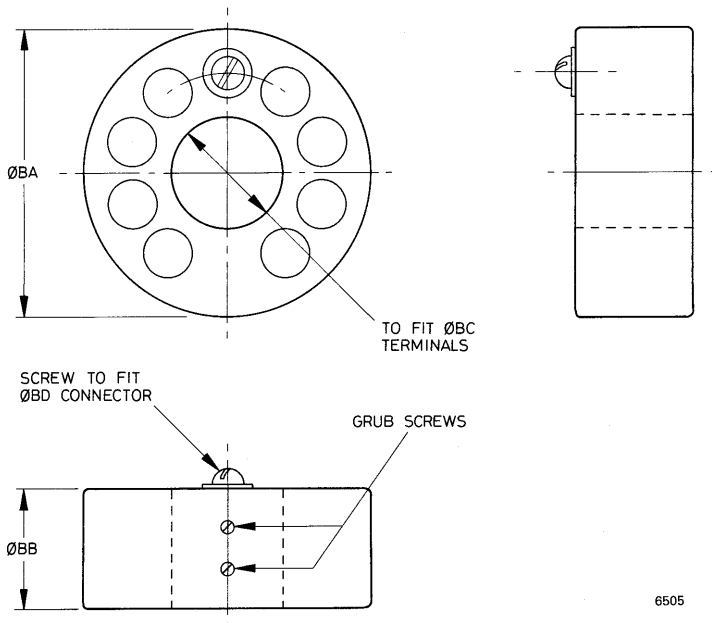


Ref	Millimetres	Inches
A	11.1	0.437
B	14.38	0.566

Inch dimensions have been derived from millimetres.

## TOP CAP CONNECTOR MA360A (All dimensions nominal)

See pages 1 and 2 for further details.

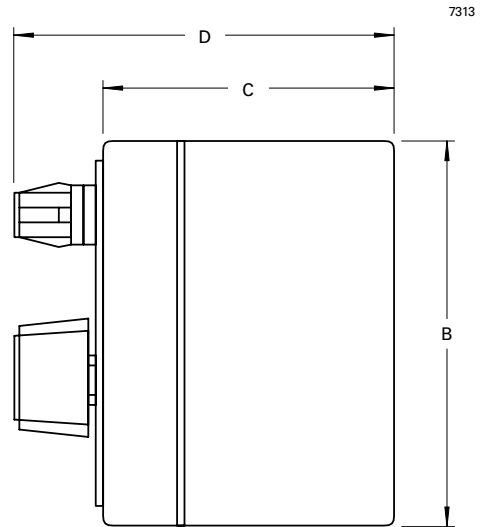
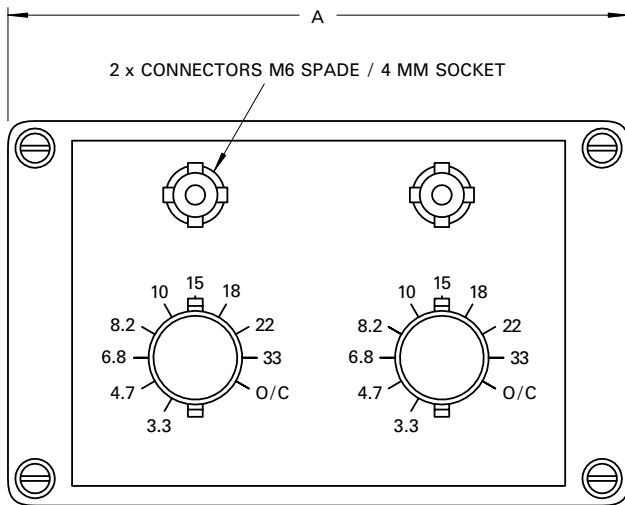


Ref	Millimetres	Inches
BA	38.1	1.500
BB	15.88	0.625
BC	14.38	0.566
BD	4.75	0.187

Inch dimensions have been derived from millimetres.

## RESISTOR BOX MA942A (All dimensions without limits are nominal)

See page 1 for further details

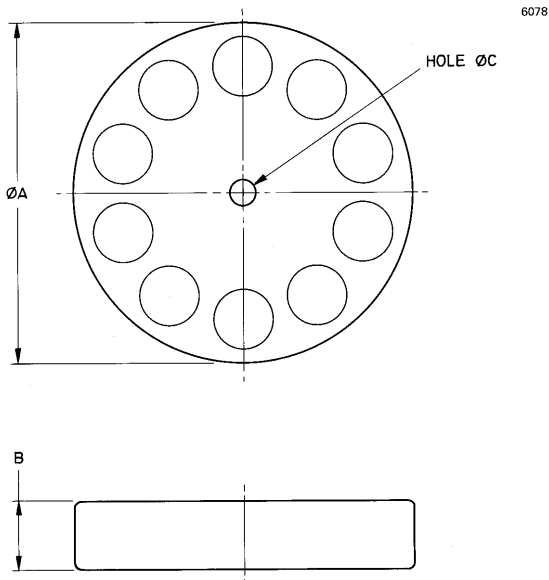


Ref	Millimetres	Inches
A	125.0	4.921
B	80.0	3.150
C	57.0	2.244
D	85.0 max	3.346 max

Inch dimensions have been derived from millimetres.

## LARGE AREA HEAT SINK MA2129A (All dimensions nominal)

See page 1 for further details



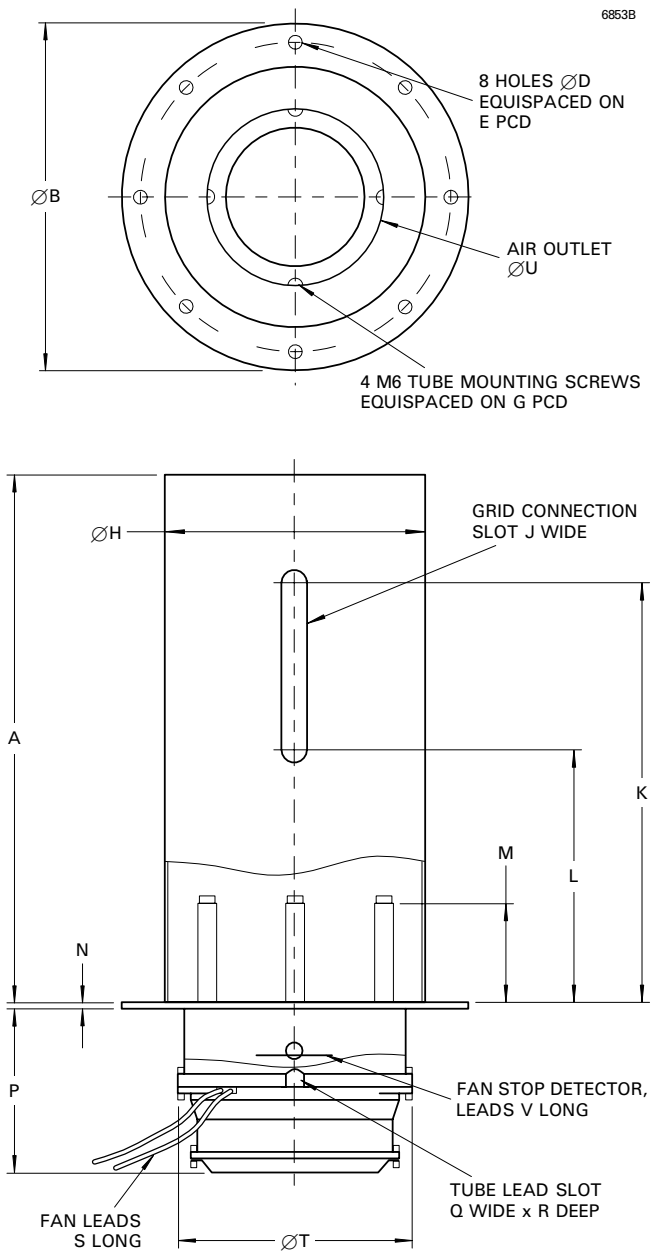
Ref	Millimetres	Inches
A	88.9	3.500
B	18.0	0.709
C	6.5	0.256

Inch dimensions have been derived from millimetres.



# COOLING MODULES MA2161A, MA2161B (All dimensions without limits are nominal)

See page 1 for further details

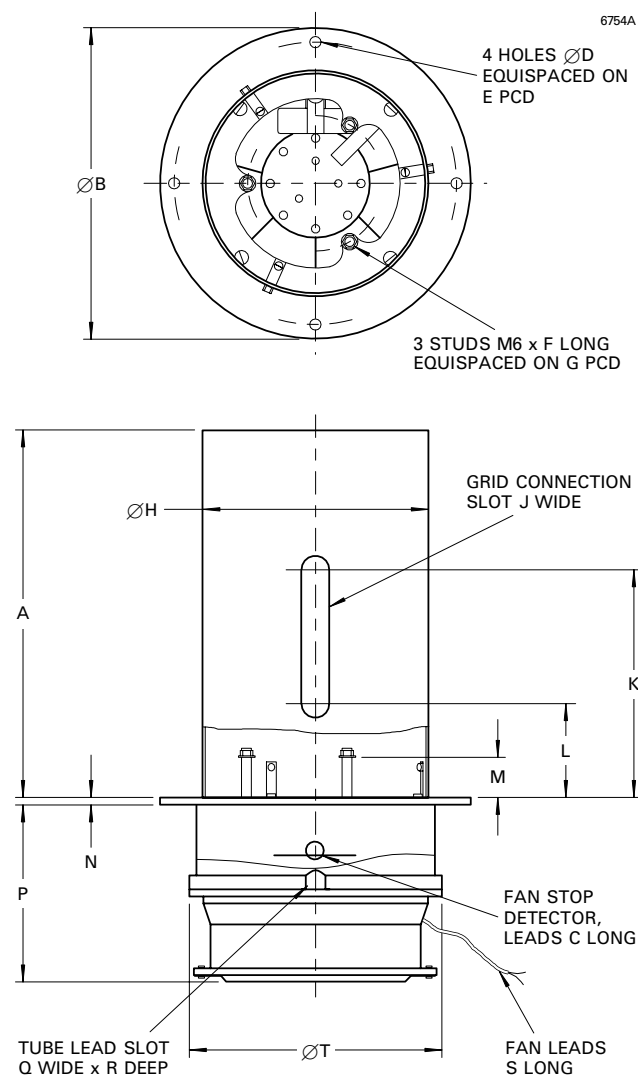


Ref	Millimetres	Inches
A	406.4 max	16.000 max
B	266.7	10.500
D	11.50	0.453
E	238.13	9.375
G	135.7	5.343
H	200.0	7.874
J	19.05	0.750
K	326.0 max	12.835 max
L	193.0 max	7.598 max
M	76.2	3.000
N	4.75	0.187
P	145.0 max	5.709 max
Q	16.0	0.630
R	16.0	0.630
S	254.0 min	10.000 min
T	181.0 max	7.126 max
U	135.7	5.343
V	450.0 min	17.717 min

Inch dimensions have been derived from millimetres.

# COOLING MODULES MA2235A, MA2235B (All dimensions without limits are nominal)

See page 1 for further details



Ref	Millimetres	Inches
A	260.0	10.236
B	220.0	8.661
C	450.0 min	17.717 min
D	7.0	0.276
E	200.0	7.874
F	13.0	0.512
G	95.25	3.750
H	160.0	6.299
J	19.05	0.750
K	164.0	64.57
L	70.0	2.756
M	28.4	1.118
N	4.75	0.187
P	138.0 max	5.433 max
Q	16.0	0.630
R	16.0	0.630
S	254.0 min	10.000 min
T	181.0 max	7.126 max

Inch dimensions have been derived from millimetres.

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