



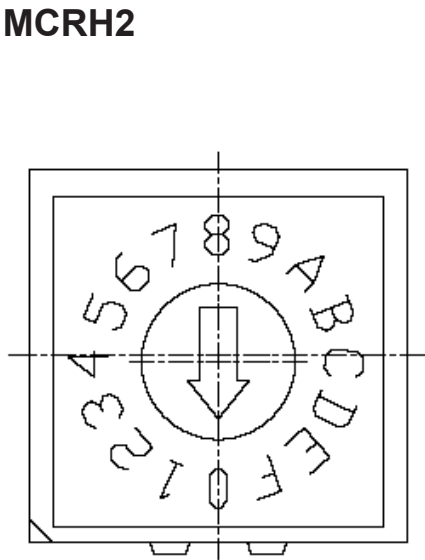
PART NO.

MCRH/RM Series

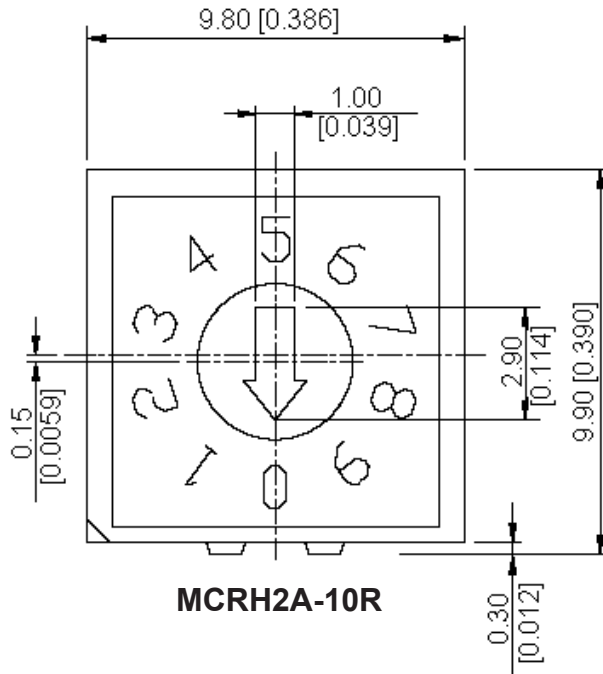
REVISIONS

ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
-	A	RELEASED	Sumana	17/3/08	Suresh	17/3/08	G. C	01/4/08

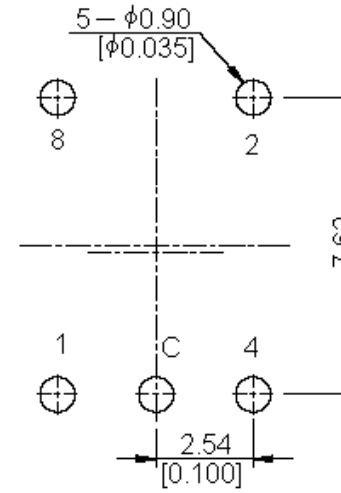
MCRH2



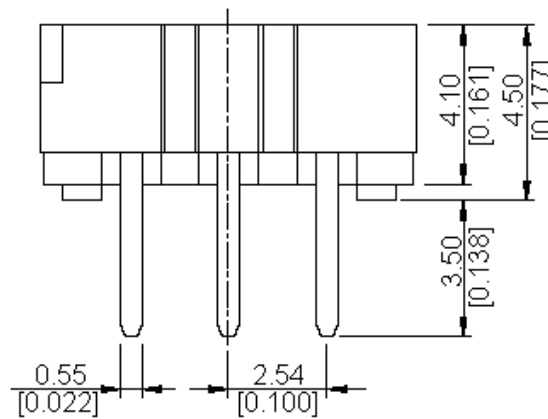
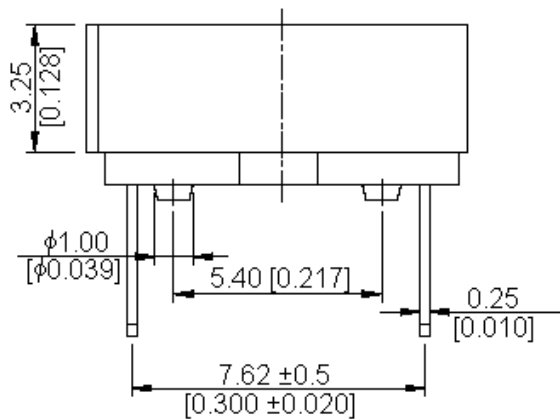
MCRH2A-16R



MCRH2A-10R



PCB Layout



Dimensions: Millimetres (Inches)

This data sheet and its contents (the "Information") belong to the Premier Farnell Group (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. SPC MULTICOMP is the registered trademark of the Group. © Premier Farnell plc 2008.

TOLERANCES:

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY.

DRAWN BY:	DATE:
Sumana	17/03/08
CHECKED BY:	DATE:
Suresh	17/03/08
APPROVED BY:	DATE:
G.Cook	01/04/08

DRAWING TITLE:

Rotary Switches - Dual In Line Type

SIZE A	DWG NO. M10000820	ELECTRONIC FILE ROTARY_DWG	REV A
SCALE: NTS		U.O.M.: mm (Inches)	SHEET: 1 OF 8



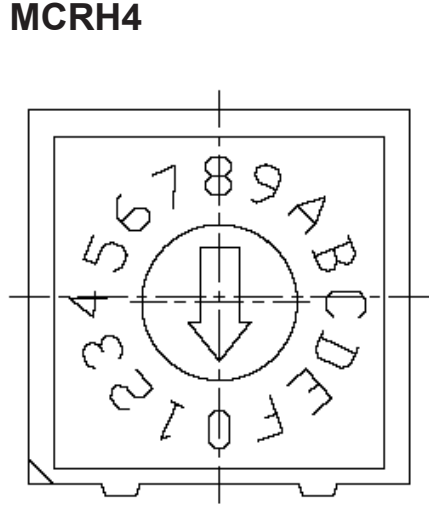
PART NO.

MCRH/RM Series

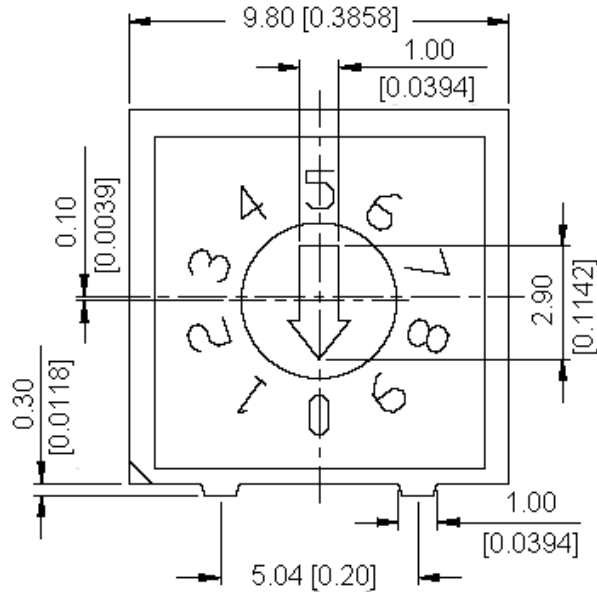
REVISIONS

ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
-	A	RELEASED	Sumana	17/3/08	Suresh	17/3/08	G. C	01/4/08

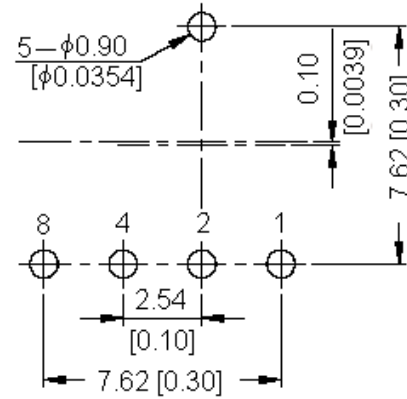
MCRH4



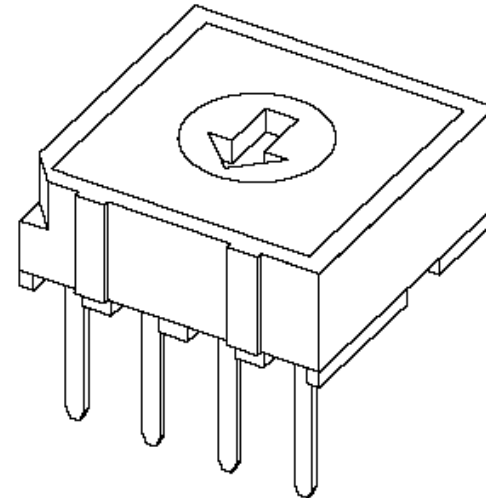
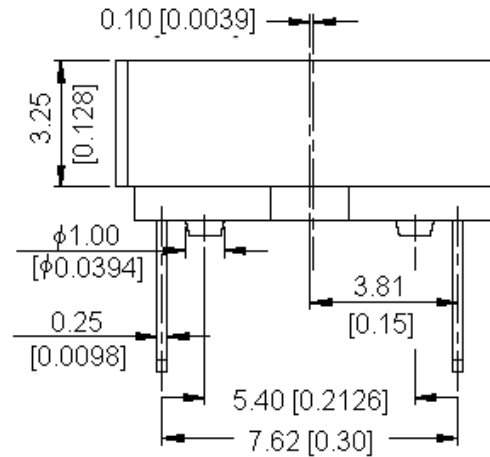
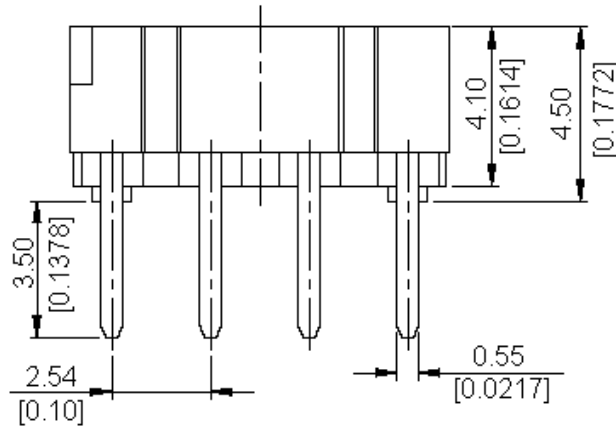
MCRH4A-16R



MCRH4A-10R



PCB Layout



Dimensions: Millimetres (Inches)

This data sheet and its contents (the "Information") belong to the Premier Farnell Group (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. SPC MULTICOMP is the registered trademark of the Group. © Premier Farnell plc 2008.

TOLERANCES:

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY.

DRAWN BY:	DATE:
Sumana	17/03/08
CHECKED BY:	DATE:
Suresh	17/03/08
APPROVED BY:	DATE:
G.Cook	01/04/08

DRAWING TITLE:

Rotary Switches - Dual In Line Type

SIZE	DWG NO.	ELECTRONIC FILE	REV
A	M10000820	ROTARY_DWG	A
SCALE: NTS	U.O.M.: mm (Inches)	SHEET: 2 OF 8	



PART NO.

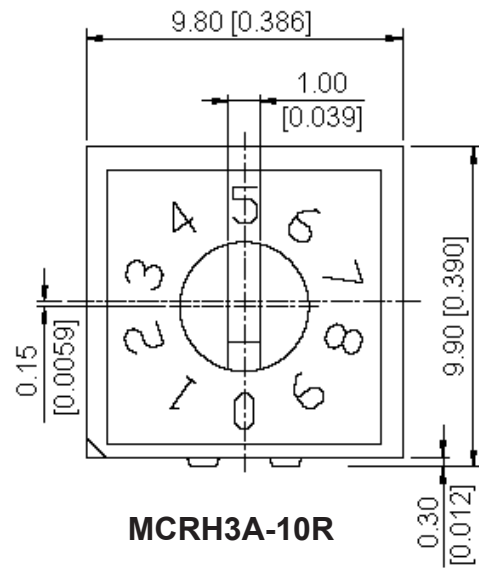
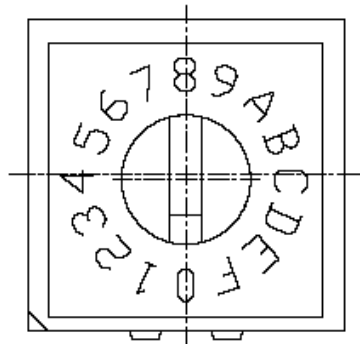
MCRH/RM Series

REVISIONS

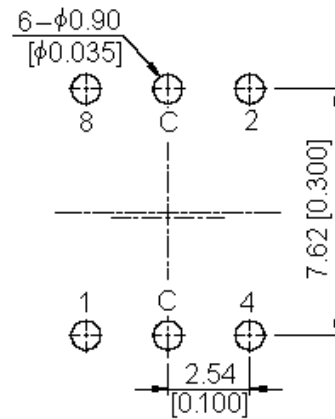
ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
-	A	RELEASED	Sumana	17/3/08	Suresh	17/3/08	G. C	01/4/08

MCRH3

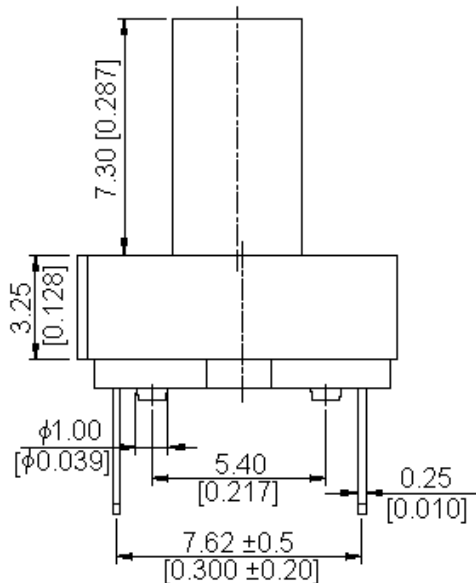
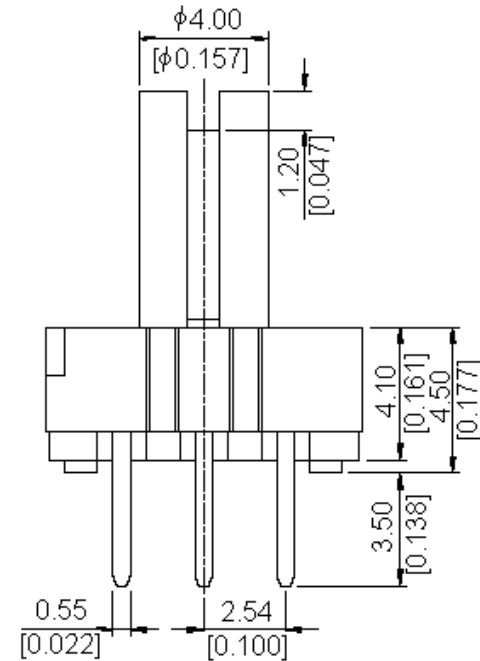
MCRH3A-16R



MCRH3A-10R



PCB Layout



Dimensions: Millimetres (Inches)

This data sheet and its contents (the "Information") belong to the Premier Farnell Group (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. SPC MULTICOMP is the registered trademark of the Group. © Premier Farnell plc 2008.

TOLERANCES:
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY.

DRAWN BY:	DATE:
Sumana	17/03/08
CHECKED BY:	DATE:
Suresh	17/03/08
APPROVED BY:	DATE:
G.Cook	01/04/08

DRAWING TITLE:

Rotary Switches - Dual In Line Type

SIZE A	DWG NO. M10000820	ELECTRONIC FILE ROTARY_DWG	REV A
SCALE: NTS		U.O.M.: mm (Inches)	SHEET: 3 OF 8



PART NO.

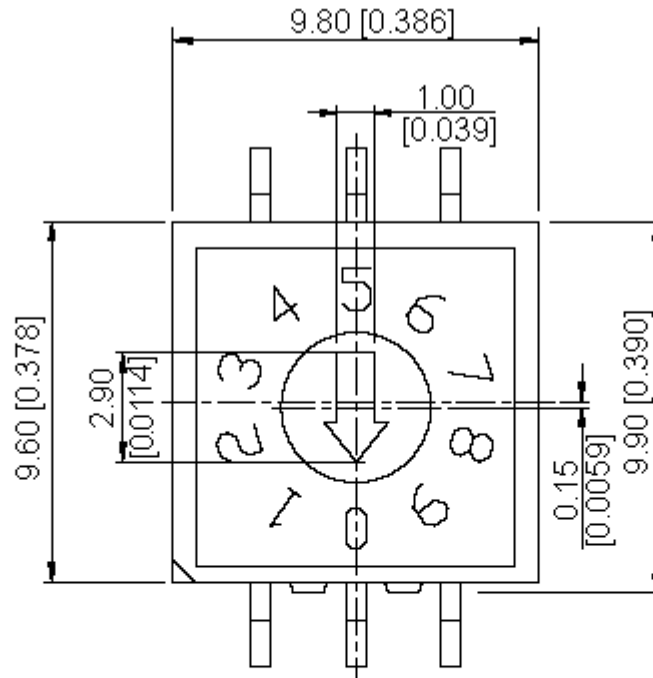
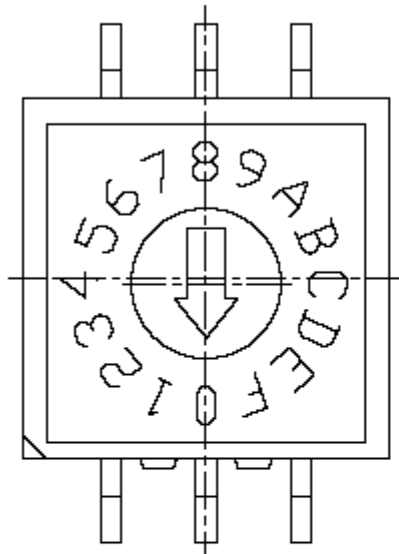
MCRH/RM Series

REVISIONS

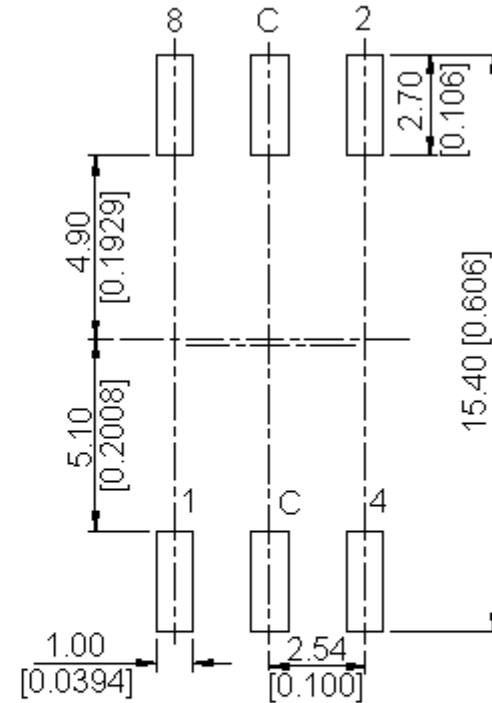
ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
-	A	RELEASED	Sumana	17/3/08	Suresh	17/3/08	G. C	01/4/08

MCRM3

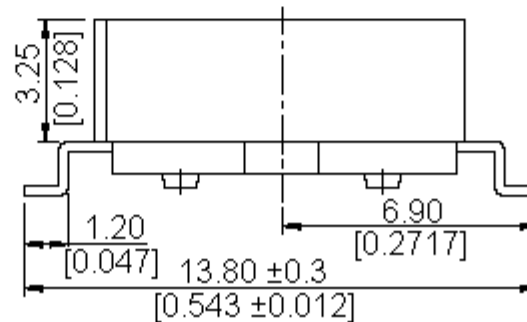
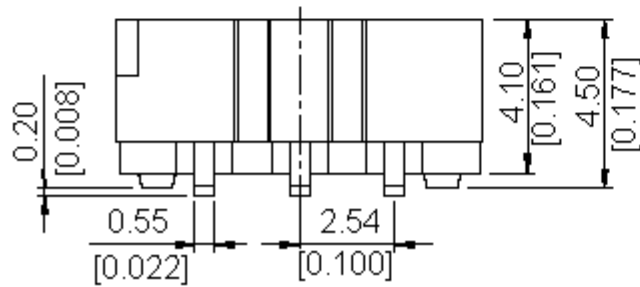
MCRM3A-16R



MCRM3A-10R



PCB Layout



Dimensions: Millimetres (Inches)

This data sheet and its contents (the "Information") belong to the Premier Farnell Group (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. SPC MULTICOMP is the registered trademark of the Group. © Premier Farnell plc 2008.

TOLERANCES:
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY.

DRAWN BY:	DATE:
Sumana	17/03/08
CHECKED BY:	DATE:
Suresh	17/03/08
APPROVED BY:	DATE:
G.Cook	01/04/08

DRAWING TITLE:

Rotary Switches - Dual In Line Type

SIZE A	DWG NO. M10000820	ELECTRONIC FILE ROTARY_DWG	REV A
SCALE: NTS		U.O.M.: mm (Inches)	SHEET: 4 OF 8



PART NO.

MCRH/RM Series

REVISIONS

ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
-	A	RELEASED	Sumana	17/3/08	Suresh	17/3/08	G. C	01/4/08

Specifications:

Mechanical:

Mechanical Life : 200mΩ maximum. 20,000 steps.
 Maximum operating force : 200gf Cm.

Environmental:

Operating temperature range : -25 to +80°C.
 Storage temperature range : -40 to +85°C.

Electrical:

Electrical life : 200mΩ maximum. 20,000 steps.
 Non-Switching rating : 100mA, 50V dc.
 Switching rating : 25mA, 24V dc.
 Contact resistance : 100mΩ maximum (initial).
 200mΩ (final - after test).
 Minimum insulation resistance : 100MΩ at 250V dc.
 Voltage proof : 250V ac for 1 minute.

Materials:

Base and Cover : UL 94V-0 Nylon thermoplastic.
 Colour : Black.
 Actuator : UL 94V-0 LCP thermoplastic.
 Colour : White.
 Contact : Alloy copper with gold plated over Nickel.
 Terminal : Brass with gold plated.

This data sheet and its contents (the "Information") belong to the Premier Farnell Group (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. SPC MULTICOMP is the registered trademark of the Group. © Premier Farnell plc 2008.

TOLERANCES:

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY.

DRAWN BY:

Sumana

CHECKED BY:

Suresh

APPROVED BY:

G.Cook

DATE:

17/03/08

DATE:

17/03/08

DATE:

01/04/08

DRAWING TITLE:

Rotary Switches - Dual In Line Type

SIZE A	DWG NO.	M10000820	ELECTRONIC FILE ROTARY_DWG	REV A
	SCALE: NTS			

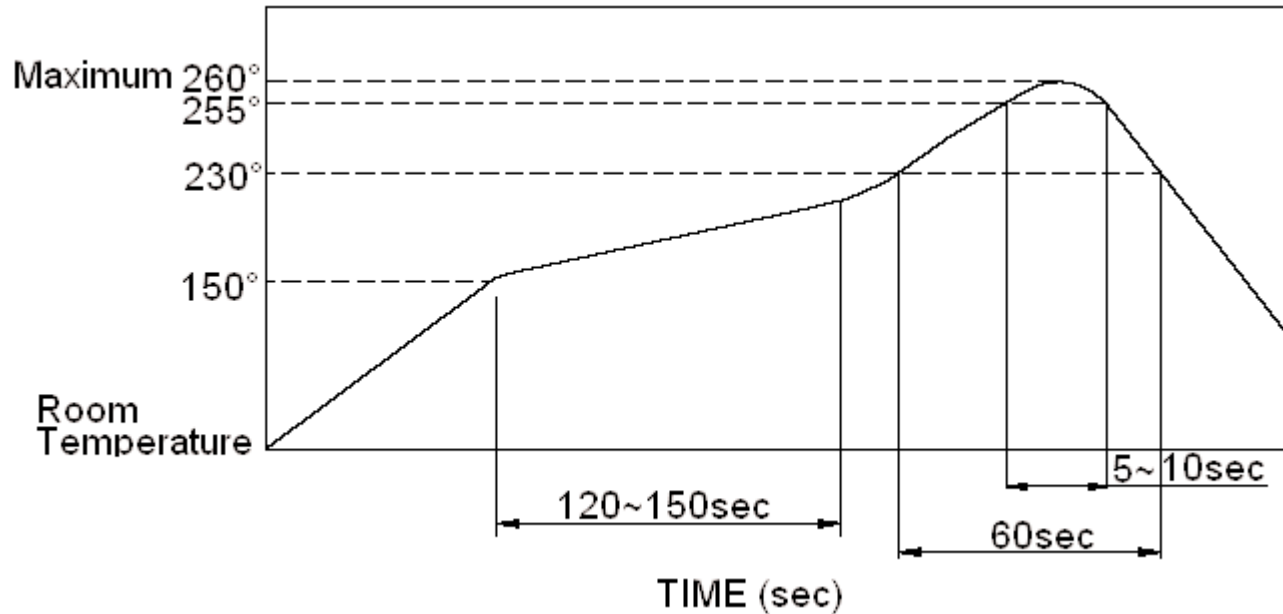


PART NO.

MCRH/RM Series

REVISIONS

ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
-	A	RELEASED	Sumana	17/3/08	Suresh	17/3/08	G. C	01/4/08



Reflow Temperature Profile

Soldering Process:

Hand soldering: Use a soldering iron of 30 watts, controlled at (350°C) approximately maximum 5 seconds.

Wave soldering: Recommended temperature at 500°F (260°C) maximum of 5 seconds (for through hole type).

Reflow soldering: When applying reflow soldering, the peak temperature or the reflow Oven should be set at 260°C maximum.

This data sheet and its contents (the "Information") belong to the Premier Farnell Group (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. SPC MULTICOMP is the registered trademark of the Group. © Premier Farnell plc 2008.

TOLERANCES:
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY.

DRAWN BY:	DATE:
Sumana	17/03/08
CHECKED BY:	DATE:
Suresh	17/03/08
APPROVED BY:	DATE:
G.Cook	01/04/08

DRAWING TITLE:

Rotary Switches - Dual In Line Type

SIZE A	DWG NO. M10000820	ELECTRONIC FILE ROTARY_DWG	REV A
SCALE: NTS		U.O.M.: mm (Inches)	SHEET: 6 OF 8



PART NO.

MCRH/RM Series

REVISIONS

ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
-	A	RELEASED	Sumana	17/3/08	Suresh	17/3/08	G. C	01/4/08

Part Number Table

Description	Part Number
Switch, Rotary DIP	MCRH4AF-10R
Switch, Rotary DIP	MCRH3AF-10R
Switch, Rotary DIP	MCRH2AF-10R
Switch, Rotary DIP	MCRH4AF-16R
Switch, Rotary DIP	MCRH3AF-16R
Switch, Rotary DIP	MCRH2AF-16R
Switch, Rotary DIP SMD	MCRM4AF-10R
Switch, Rotary DIP SMD	MCRM3AF-10R
Switch, Rotary DIP SMD	MCRM2AF-10R
Switch, Rotary DIP SMD	MCRM4AF-16R
Switch, Rotary DIP SMD	MCRM3AF-16R
Switch, Rotary DIP SMD	MCRM2AF-16R

This data sheet and its contents (the "Information") belong to the Premier Farnell Group (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. SPC MULTICOMP is the registered trademark of the Group. © Premier Farnell plc 2008.

TOLERANCES:
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY.

DRAWN BY:	DATE:
Sumana	17/03/08
CHECKED BY:	DATE:
Suresh	17/03/08
APPROVED BY:	DATE:
G.Cook	01/04/08

DRAWING TITLE:			
Rotary Switches - Dual In Line Type			
SIZE	DWG NO.	ELECTRONIC FILE	REV
A	M10000820	ROTARY_DWG	A
SCALE: NTS		U.O.M.: mm (Inches)	SHEET: 7 OF 8



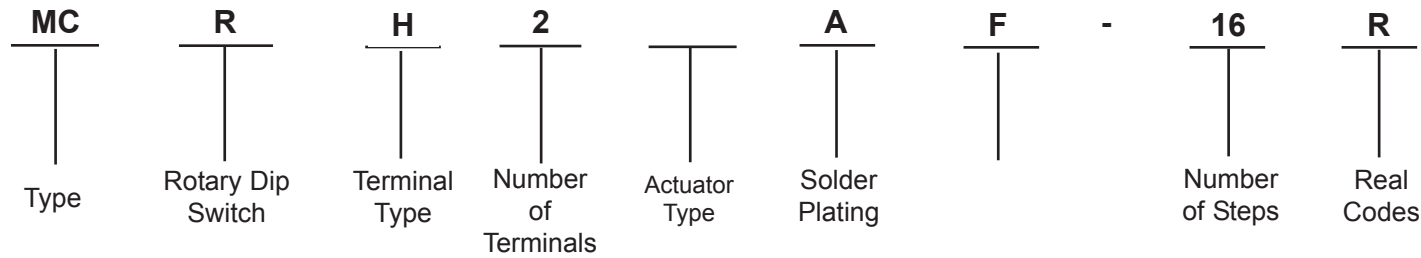
PART NO.

MCRH/RM Series

REVISIONS

ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
-	A	RELEASED	Sumana	17/3/08	Suresh	17/3/08	G. C	01/4/08

Part Number Explanation:



- Terminal Type** : H = Through Hole.
M = SMT.
- Number of Terminals** : 2 = 3x2.
3 = 3x3.
4 = 4x1.
- Actuator Type** : = Recessed Actuator.
- Solder Plating** : A = Terminal:Gold Plated Over Nickel.
- Number of Steps** : 10 = 10 Steps.
16 = 16 Steps.

<http://www.farnell.com>
<http://www.newark.com>
<http://www.cpc.co.uk>

This data sheet and its contents (the "Information") belong to the Premier Farnell Group (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. SPC MULTICOMP is the registered trademark of the Group. © Premier Farnell plc 2008.

TOLERANCES:
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY.

DRAWN BY:	DATE:
Sumana	17/03/08
CHECKED BY:	DATE:
Suresh	17/03/08
APPROVED BY:	DATE:
G.Cook	01/04/08

DRAWING TITLE:			
Rotary Switches - Dual In Line Type			
SIZE	DWG NO.	ELECTRONIC FILE	REV
A	M10000820	ROTARY_DWG	A
SCALE: NTS		U.O.M.: mm (Inches)	SHEET: 8 OF 8