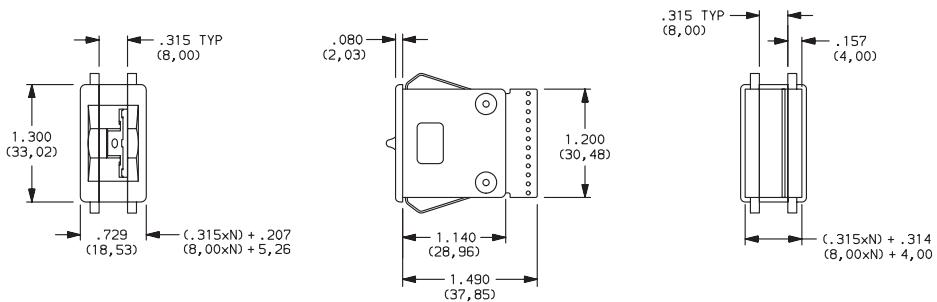


SERIES

3 (STD.) THUMBWHEEL SWITCHES



NUMBER OF SECTIONS

0 Switch section only, no assembly. Blank bodies are considered sections; endplates are not sections. Must be ordered with 09 or 19 mounting style options, see pages M-10 and M-11.

1-8 Number of switch sections in assembly, includes endplates.

9 More than 8 switch sections, specify on CONFIGURATION FORM, page M-15 and consult Customer Service Center.

NOTE: Endplates and blank sections available separately, see pages M-13 and M-14.

FUNCTION CODE

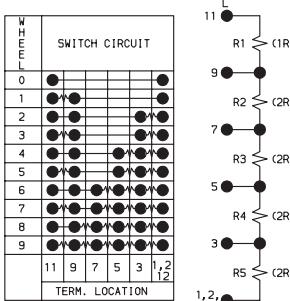
11 DECIMAL -1 POLE: 10 POSITION

14 RESISTOR DECADE; 1-2-2-2-2 CODE (RESISTORS NOT SUPPLIED)

21 BCD 1-2-4-8: 10 POSITION

Available Terminations: 0, 1, 3

See fig. 1, page M-12.



Available Terminations: 1

See fig. 1, page M-12.

| W H E I E L | SIGNALS CONN. TO COMM. SIG. C | | | | |
|----------------------------|----------------------------------|---|---|----|---|
| | 1 | 2 | 4 | 8 | C |
| 0 | | | | | ● |
| 1 | ● | | | | ● |
| 2 | | ● | | | ● |
| 3 | ● | ● | | | ● |
| 4 | | | ● | | ● |
| 5 | ● | | ● | | ● |
| 6 | | ● | ● | | ● |
| 7 | ● | ● | ● | | ● |
| 8 | | | | ● | ● |
| 9 | ● | | | ● | ● |
| | 3 | 5 | 7 | 11 | 9 |
| | TERM. LOCATION | | | | |

Available Terminations: 0, 1, 3

See fig. 1, page M-12.

NOTE: For terminal location diagram, see page M-12



Third Angle Projection

Dimensions are shown: IN (mm)
Dimensions subject to change



ITT Industries

Cannon

C&K 3 Series Thumbwheel Switches

FUNCTION CODE

23 COMPLEMENT OF BCD 1-2-4-8;
10 POSITION

| | | SIGNALS CONN. TO COMM. SIG. C | | | | |
|---|---|----------------------------------|---|----|---|---|
| W | H | T | 2 | 4 | 8 | C |
| 0 | | ● | ● | ● | ● | ● |
| 1 | | ● | ● | ● | ● | ● |
| 2 | | ● | ● | ● | ● | ● |
| 3 | | | ● | ● | ● | ● |
| 4 | | ● | ● | ● | ● | ● |
| 5 | | ● | ● | ● | ● | ● |
| 6 | | ● | ● | ● | ● | ● |
| 7 | | | ● | ● | ● | ● |
| 8 | | ● | ● | ● | ● | ● |
| 9 | | ● | ● | ● | ● | ● |
| | | 3 | 9 | 11 | 5 | 7 |
| | | TERM. LOCATION | | | | |

Available Terminations: 0, 1, 3
See fig. 1, page M-12.

27 BCD 1-2-4-8; 10 POSITION

| | | SIGNALS CONN. TO COMM. SIG. C | | | | |
|---|---|----------------------------------|---|---|---|---|
| W | H | 1 | 2 | 4 | 8 | C |
| 0 | | | | | | ● |
| 1 | | ● | | | | ● |
| 2 | | | ● | | | ● |
| 3 | | ● | ● | | | ● |
| 4 | | | | ● | | ● |
| 5 | | ● | | | | ● |
| 6 | | | ● | | | ● |
| 7 | | ● | ● | ● | | ● |
| 8 | | | | ● | | ● |
| 9 | | ● | | | | ● |
| | | 4 | 5 | 1 | 2 | 3 |
| | | TERM. LOCATION | | | | |

Available Terminations: B
See fig. 2, page M-12.

31 BCD 1-2-4-8; 10 POSITION

| | | SIGNALS CONN. TO COMM. SIG. C | | | | |
|---|---|----------------------------------|---|----|---|---|
| W | H | 1 | 2 | 4 | 8 | C |
| 0 | | | | | | ● |
| 1 | | ● | | | | ● |
| 2 | | | ● | | | ● |
| 3 | | ● | ● | | | ● |
| 4 | | | | ● | | ● |
| 5 | | ● | | | | ● |
| 6 | | | ● | | | ● |
| 7 | | ● | ● | ● | | ● |
| 8 | | | | ● | | ● |
| 9 | | ● | | | | ● |
| | | 2 | 3 | 11 | 9 | 8 |
| | | TERM. LOCATION | | | | |

Available Terminations: 0, 1, 3
See fig. 1, page M-12.

71 BINARY CODED HEXADECIMAL,
16 POSITION

| | | SIGNALS CONN. TO COMM. SIG. C | | | | |
|---|---|----------------------------------|---|---|----|---|
| W | H | 1 | 2 | 4 | 8 | C |
| 0 | | | | | | ● |
| 1 | | ● | | | | ● |
| 2 | | | ● | | | ● |
| 3 | | ● | ● | | | ● |
| 4 | | | | ● | | ● |
| 5 | | ● | | | | ● |
| 6 | | | ● | | | ● |
| 7 | | ● | ● | ● | | ● |
| 8 | | | | ● | | ● |
| 9 | | ● | | | | ● |
| A | | | | | | ● |
| B | | ● | ● | | | ● |
| C | | | | | | ● |
| D | | ● | | | | ● |
| E | | | ● | ● | | ● |
| F | | ● | ● | ● | | ● |
| | | 3 | 5 | 7 | 11 | 9 |
| | | TERM. LOCATION | | | | |

Available Terminations: 0, 1, 3
See fig. 1, page M-12.

NOTE: For terminal location diagram, see page M-12.

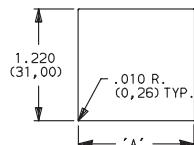
MOUNTING STYLE

Type 0 Snap-In Front Mount

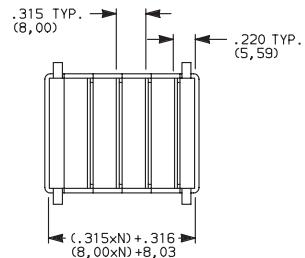
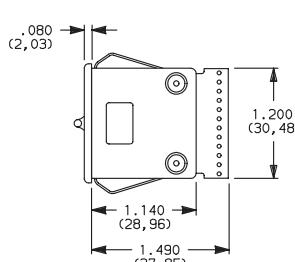
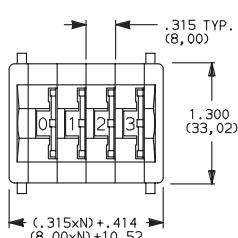
| MOUNTING STYLE | DIM. 'A' |
|-------------------|--|
| 00 | (.315 x N) + .326 (8.00 x N) + (8.28) |

N = Number of sections.
Recommended panel thickness:
0.46-.125
(1.16-3.18)

PANEL MOUNTING



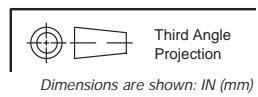
00 SWITCH ASSEMBLY W/ ENDPLATES-.315 (8.00) SECTION PITCH



N = Number of sections.

09 SWITCH SECTION ONLY-UNASSEMBLED WITHOUT ENDPLATES OR SPACERS
(Must be ordered with number of sections option "0", see Page M-9.)

NOTE: Endplates, blank sections, spacers and assembly hardware available separately, see pages M-13 and M-14.



Dimensions are shown: IN (mm)
Dimensions subject to change

C&K 3 Series Thumbwheel Switches

MOUNTING STYLE



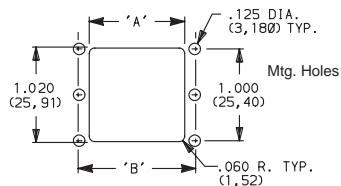
Type 1 Rear Mount

| MOUNTING STYLE | DIM. 'A' | DIM. 'B' |
|-------------------|--|---|
| 10 | (.350 x N) + .340 (8,89 x N) + (8,64) | (.350 x N) + .560 (8,89 x N) + (14,22) |

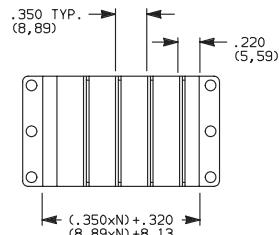
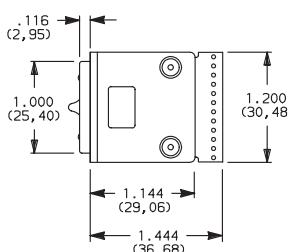
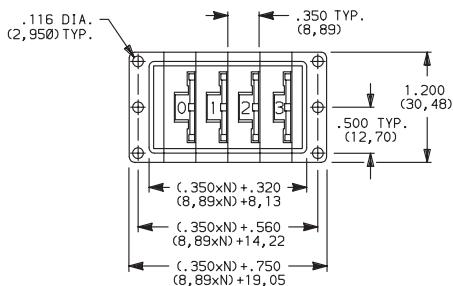
N = Number of sections.

Recommended panel thickness:
0.46-.125
(1,16-3,18)

PANEL MOUNTING



10 SWITCH ASSEMBLY W/ ENDPLATES-350 (8,89) SECTION PITCH

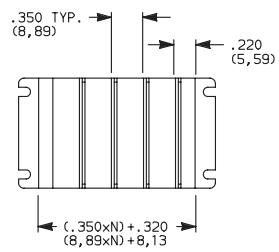
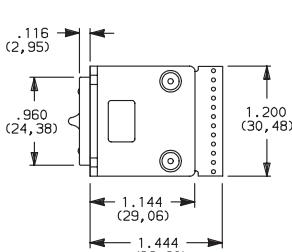
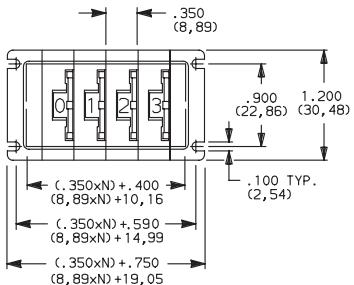


N = Number of sections.

19 SWITCH SECTION ONLY-UNASSEMBLED WITHOUT ENDPLATES OR SPACERS (Must be ordered with number of sections option "0", see Page M-9.)

Type 2 Rear Mount

20 SWITCH ASSEMBLY W/ ENDPLATES-350 (8,89) SECTION PITCH



N = Number of sections.

29 SWITCH SECTION ONLY-UNASSEMBLED WITHOUT ENDPLATES OR SPACERS (Must be ordered with number of sections option "0", see Page M-9.)

Type 3 Snap1-in Front Mount

09 SWITCH SECTION ONLY-UNASSEMBLED WITHOUT ENDPLATES OR SPACERS (Must be ordered with number of sections option "0", see Page M-9.)

NOTE: Endplates, blank sections, spacers and assembly hardware available separately, see pages M-13 and M-14.

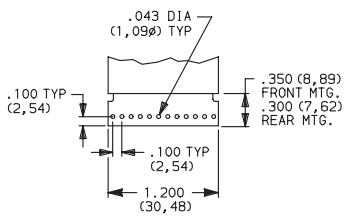
Third Angle Projection

Dimensions are shown: IN (mm)
Dimensions subject to change

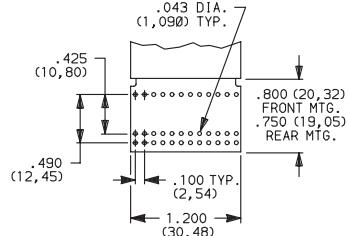
C&K 3 Series Thumbwheel Switches

TERMINATIONS

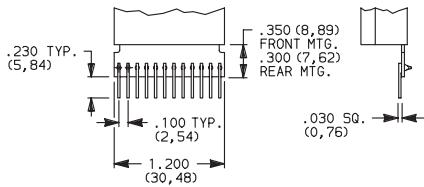
0 (STD.) TYPE 0



1 TYPE 1, EXTENDED TYPE 0



3 TYPE 0 WITH SOLDER PINS

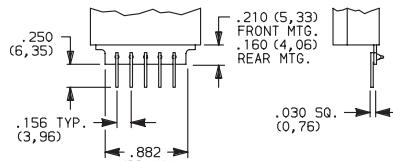


Signal traces cut except for common(s).

9 ANY COMBINATION OF TERMINATION CONFIGURATIONS OR SPECIAL TERMINATIONS.

Specify on configuration form, page M-15 and consult Customer Service Center.

B TYPE 6 WITH SOLDER PINS



PC Board 1/32" (0,79) thick.

NOTE: All terminal holes shown may not be present for all function codes, consult Customer Service Center. Terminal connector available for termination options 0 & 1, see page M-14.

Terminal Location Numbers

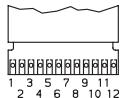


FIG. 1



TAB SURFACE

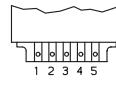


FIG. 2

TAB SURFACE

NOTE: See function codes, pages M-9 and M-10, for signal locations.

COLOR/MARKING/STOPS

0 (STD.) MATTE BLACK HOUSING (Gloss black wheel with white characters; no stops.)

NOTE: Stop pins are available separately, see page M-14.

SEAL

0 (STD.) UNSEALED SWITCHING CONTACTS.

1 SEALED SWITCHING CONTACTS. (Sealing is by means of an o-ring rotary seal and a cured-in-place elastomer gasket. Switching contact area is protected from moisture, oil, and airborne contaminants.)

2 DUST LENS. (Protects the character face of the wheel from abrasion and dirt.)

3 SEALED SWITCHING CONTACTS AND DUST LENS



Dust Lens



Dimensions are shown: IN (mm)
Dimensions subject to change

C&K 3 Series Thumbwheel Switches

AVAILABLE HARDWARE

Blank sections, Type 0 & 3,
.315 THK.



PART NO.

413602000 W/RIB-BLACK
413609000 W/RIB-GRAY

400502000 W/RIB & W/OUT SPRINGS-BLACK
400509000 W/RIB & W/OUT SPRINGS-GRAY

Blank sections, Front mount, Type 0 & 3,
.315 THK.



PART NO.

413502000 PLAIN-BLACK
413509000 PLAIN-GRAY

400702000 PLAIN & W/OUT SPRINGS-BLACK
400709000 PLAIN & W/OUT SPRINGS-GRAY

Blank sections, Rear mount, Type 1,
.350 THK.



4006

4008

Blank sections, Rear mount, Type 2,
.350 THK.



4734



4733

End plates, Front mount, Type 0



End plates, Rear mount, Type 1



PART NO.

473402000 W/RIB-BLACK
473409000 W/RIB-GRAY

473302000 PLAIN-BLACK
473309000 PLAIN-GRAY

PART NO.

413402000 BLACK
413409000 GRAY

Two required for
complete assembly.

PART NO.

400402000 BLACK
400409000 GRAY

Two required for
complete assembly.

End plates, Rear mount, Type 2



PART NO.

473202000 BLACK
473209000 GRAY

Two required for
complete assembly.

Spacers, Front mount, Type 0 & 3, .078 THK.
(Makes section pitch 10mm)



PART NO.

410802000 BLACK
410809000 GRAY

Stop pins



PART NO.

402900000

Dimensions are shown: IN (mm)
Dimensions subject to change

Thumbwheel & Pushwheel



M

C&K 3 Series Thumbwheel Switches

AVAILABLE HARDWARE

Terminal connector



605A00000

605A02000

PART NO.

605A00000 PC

605A02000 SOLDER LUG

Fits 0 & 1 terminations only.

Screws for field assembly of thumbwheel switches
(2 screws needed per assembly + 403500000 nuts)

| SCREW PART NUMBER (0-80 UNF THD. SIZE) | NUMBER OF SECTIONS IN ASSEMBLY | |
|---|--------------------------------|-----------------|
| | FRONT MOUNTING | REAR MOUNTING |
| | MTG. STYLE - 00 | MTG. STYLE - 10 |
| 412700000 | 1-2 | 1-2 |
| 412701000 | 3-4 | 3 |
| 412702000 | 5-7 | 4-6 |
| 412703000 | 8-10 | 7-9 |
| 412704000 | 11-13 | 10-12 |
| 412705000 | 14-16 | 13-15 |

Nut



Two nuts required per assembly and screws.

Nut driver (For 403500000 nut)



PART NO.
403500000

PART NO.
406100652

Configuration Form

GRAY SHADED AREAS TO BE FILLED IN BY CUSTOMER SERVICE.

CATALOG PART NO.

| | | | | | | | |
|---|--|--|--|--|--|--|--|
| 3 | | | | | | | |
|---|--|--|--|--|--|--|--|

C&K PART NUMBER

| | | | | | |
|--|--|--|--|--|--|
| | | | | | |
|--|--|--|--|--|--|

| |
|-----------------|
| C&K PART NUMBER |
| |
| |
| |
| |
| |

COMPANY NAME _____

CUSTOMER
PRINT
REVISION:

ADDRESS _____ TEL.# _____

CUSTOMER CONTACT _____ DATE _____

DETAILS:

ORIGINATED BY _____ SALES REP. _____

| THUMBWHEEL SECTIONS | | NO. OF SEC. | FUNCTION CODE – TERMINATIONS – COLOR/MARKING/STOPS/SEAL – ILLUMINATION <small>ENTER OPTION CODES IN APPROPRIATE BOXES. FUNCTION CODES INCLUDE BLANK SECTIONS (SEE PAGES M-9 & M-10).</small> | | | | | | DESCRIBE IN APPROPRIATE ROW | | |
|------------------------|--|-------------------|---|---|--|--|---|---|-----------------------------|--|--|
| 1 | | 1 | 3 | – | | | – | – | | | |
| 2 | | 2 | 3 | – | | | – | – | | | |
| 3 | | 3 | 3 | – | | | – | – | | | |
| 4 | | 4 | 3 | – | | | – | – | | | |
| 5 | | 5 | 3 | – | | | – | – | | | |
| 6 | | 6 | 3 | – | | | – | – | | | |
| 7 | | 7 | 3 | – | | | – | – | | | |
| 8 | | 8 | 3 | – | | | – | – | | | |
| 9 | | 9 | 3 | – | | | – | – | | | |
| 10 | | 10 | 3 | – | | | – | – | | | |
| 11 | | 11 | 3 | – | | | – | – | | | |

QUALITY CONTROL INSTRUCTIONS

PRODUCTION APPROVAL DATE

| | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|

| | |
|--|--|
| | |
|--|--|

Q.C. APPROVAL DATE

| | |
|--|--|
| | |
|--|--|

REV. INITIALS DATE

| | | | |
|--|--|--|--|
| | | | |
|--|--|--|--|

FOR SWITCHES WITH MORE THAN 11 SECTIONS, CONTINUE ON ADDITIONAL SHEETS.

SPECIAL INSTRUCTIONS OR SPECIFICATIONS:

SHEET ____ OF ____

Thumbwheel & Pushwheel



M

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

C&K Components:

[406100652](#) [412707000](#) [321110300](#) [412703000](#) [400402000](#) [342210000](#)