

# ROTARY SWITCH



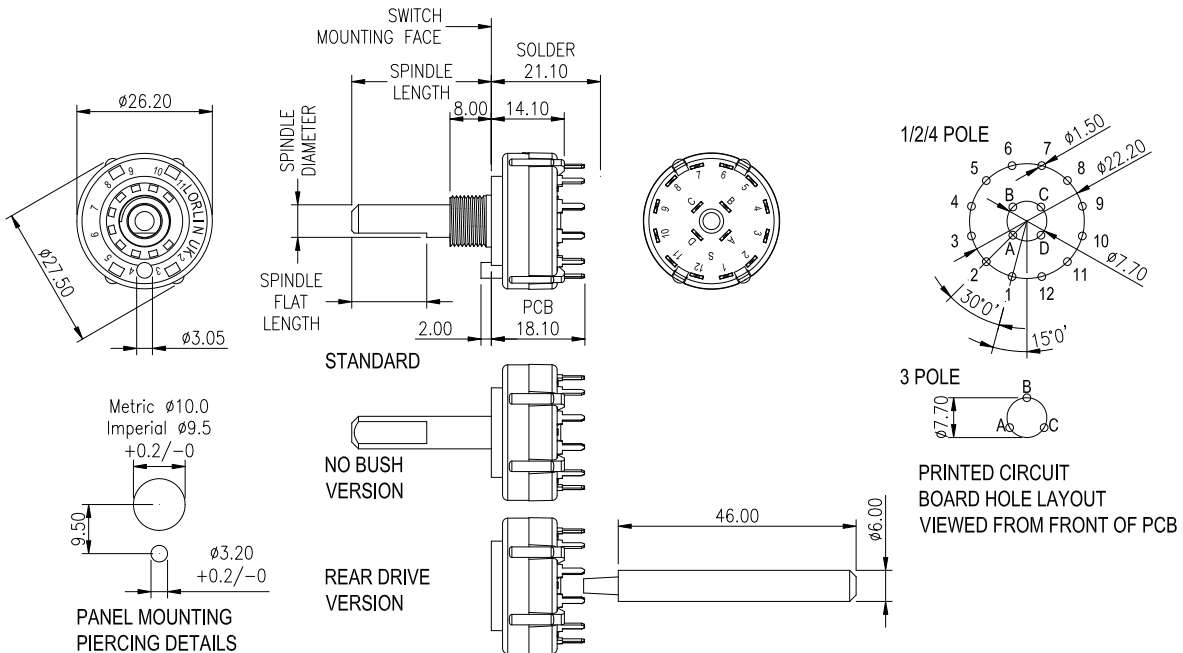
## CKF IP65 ROTARY SWITCH

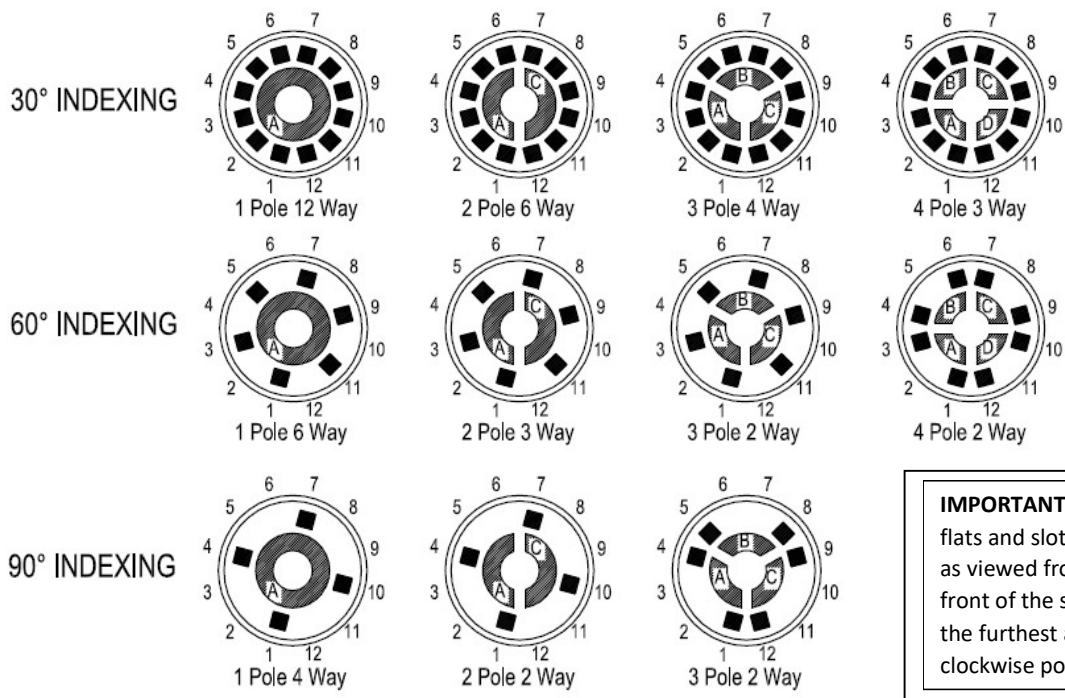
### ELECTRICAL & MECHANICAL SPECIFICATION

|                                   |                              |                                    |                            |
|-----------------------------------|------------------------------|------------------------------------|----------------------------|
| <b>Switch Rating:</b>             | 1A @ 24V ac/dc               | <b>Life:</b>                       | >10,000 Cycles             |
| <b>Proof Voltage:</b>             | 1,500V ac (Initial)          | <b>Operating Torque (nominal):</b> | Standard 8.6 ± 1 cNm       |
| <b>Insulation Resistance:</b>     | >999 MΩ at 500V dc (Initial) |                                    | Light Action 3.5 ± 0.5 cNm |
| <b>Contact Resistance</b>         | <20 mΩ (Initial)             | <b>End Stop Torque (nominal):</b>  | 0.80 Nm                    |
| <b>Contact/Terminal Material:</b> | Brass CZ108 Ag Plated        | <b>Moulding Material:</b>          | Polyamide 6.6 G.F          |
| <b>Operating Temperature:</b>     | -30°C to +85°C               |                                    |                            |

### FEATURES

- Single wafer switch
- Maximum 12 positions
- Up to 4 poles per switch
- Standard 30° indexing, 60° and 90° available
- Moulded 27.5mm diameter
- Shorting (make before break 30° indexing only) or non-shorting (break before make)
- Moulded stop or adjustable stops to restrict number of positions
- Continuous rotation also available
- Made in UK
- UL-V0 rated material available
- Dampened indexing and reduced shaft play gives smooth feel operation
- Solder or PCB terminals
- Gold flashed or gold plated
- Spindles with special flats, slots or knurls
- Rear drive versions
- No bush versions





SPINDLE FLAT ANGLE - AVAILABLE IN 15° INCREMENTS

SCREWDRIVER SLOT - AVAILABLE IN 45° INCREMENTS



**ORDERING CODE FOR NON-STANDARD SWITCHES**

| C K F                       |                        |            |              |                 |               |                    |            |                        |   | SPINDLE LENGTH FMF IN FULL MM |                   |   |     |  |  |  |  |  |  |
|-----------------------------|------------------------|------------|--------------|-----------------|---------------|--------------------|------------|------------------------|---|-------------------------------|-------------------|---|-----|--|--|--|--|--|--|
| Index Angles & NO. OF POLES | NO OF WAYS (POSITIONS) | MSB or BBM | Contact Type | Contact Plating | SPINDLE DIAM. | SPINDLE FLAT DEPTH | BUSH DIAM. | LENGTH OF SPINDLE FLAT |   |                               | ANGLE OF FLAT (°) |   |     |  |  |  |  |  |  |
| A 30° 1Pole                 | A 2                    | A BBM      | Solder       | SILVER          | A 6mm         | Nil                | M10        | A 2                    | N | 15                            | A 0               | N | 195 |  |  |  |  |  |  |
| B 2                         | B 3                    | B MBB*     | Solder       |                 | B 6mm         | 5mm                | M10        | B 3                    | O | No Flat                       | B 15              | O |     |  |  |  |  |  |  |
| C 3                         | C 4                    | C BBM      | PCB          |                 | C 6.35mm      | Nil                | 9.52 mm    | C 4                    | P | 16                            | C 30              | P | 210 |  |  |  |  |  |  |
| D 4                         | D 5                    | D MBB*     | PCB          |                 | D 6.35mm      | 5.5mm              | 9.52 mm    | D 5                    | Q | 17                            | D 45              | Q | 225 |  |  |  |  |  |  |
| E 60° 1Pole                 | E 6                    | E BBM      | Solder       | GOLD PLATE      | E 6mm         | Nil                | M10        | E 6                    | R | 18                            | E 60              | R | 240 |  |  |  |  |  |  |
| F 2                         | F 7                    | F MBB*     | Solder       |                 | F 6mm         | 5mm                | M10        | F 7                    | S | 19                            | F 75              | S | 255 |  |  |  |  |  |  |
| G 3                         | G 8                    | G BBM      | PCB          |                 | G 6.35mm      | Nil                | 9.52 mm    | G 8                    | T | 20                            | G 90              | T | 270 |  |  |  |  |  |  |
| H 4                         | H 9                    | H MBB*     | PCB          |                 | H 6.35mm      | 5.5mm              | 9.52 mm    | H 9                    | U | 21                            | H 105             | U | 285 |  |  |  |  |  |  |
| I 90° 1Pole                 | I 10                   | I BBM      | Solder       | GOLD FLASH      | I 6mm         | Nil                | M10        | I 10                   | V | 22                            | I 120             | V | 300 |  |  |  |  |  |  |
| J 2                         | J 11                   | J MBB*     | Solder       |                 | J 6mm         | 5mm                | M10        | J 11                   | W | 23                            | J 135             | W | 315 |  |  |  |  |  |  |
| K 3                         | K 12                   | K BBM      | PCB          |                 | K 6.35mm      | Nil                | 9.52 mm    | K 12                   | X | 24                            | K 150             | X | 330 |  |  |  |  |  |  |
| Z No Stop                   | L 1                    | L MBB*     | PCB          |                 | L 6.35mm      | 5.5mm              | 9.52 mm    | L 13                   | Y | 25                            | L 165             | Y | 345 |  |  |  |  |  |  |
|                             |                        |            |              |                 |               |                    |            | M 14                   | Z | Full                          | M 180             |   |     |  |  |  |  |  |  |

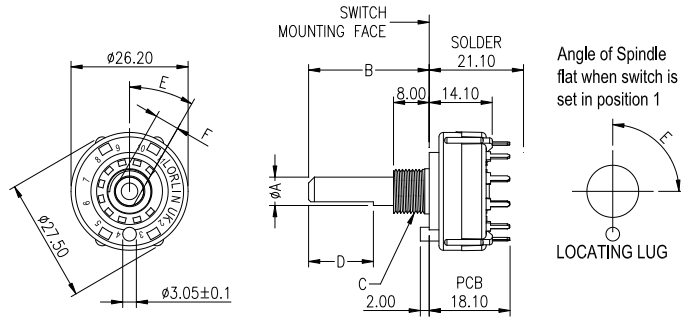
\*30° INDEX ANGLE ONLY  
PLEASE COMPLETE THE SPECIFICATION DRAWING IF YOUR DETAILS CANNOT BE FULL FILLED BY USING THE ORDERING CODE

## STANDARD PART NUMBERS

| BASIC TYPES | SPINDLE DIAMETER | SPINDLE LENGTH FROM MOUNTING FACE | 8mm LONG BUSH | SPINDLE FLAT LENGTH | ANGLE OF SPINDLE FLAT | SPINDLE FLAT THICKNESS |
|-------------|------------------|-----------------------------------|---------------|---------------------|-----------------------|------------------------|
| IMPERIAL    | 6.35mm           | 38mm                              | 9.52 x 32 TPI | 30mm                | 90°                   | 5.5mm                  |
| METRIC      | 6.00mm           | 50mm                              | M10 x 0.75    | No Flat             | -                     | -                      |

| CIRCUITRY AT 30° INDEXING | STANDARD METRIC            |                |                     | STANDARD IMPERIAL |                     |
|---------------------------|----------------------------|----------------|---------------------|-------------------|---------------------|
|                           | PLATING FINISH             | Shorting (MBB) | Non- Shorting (BBM) | Shorting (MBB)    | Non- Shorting (BBM) |
| <b>1 POLE 12 POSITION</b> | <b>STOP INCLUDED</b>       |                |                     |                   |                     |
| Solder Tag                | Silver                     | CKF1039        | CKF1029             | CKF1034           | CKF1024             |
|                           | Gold Flash                 | CKF1508        | CKF1503             | CKF1516           | CKF1520             |
|                           | Gold Plate                 | CKF2444        | CKF1672             | CKF2458           | CKF2459             |
| Printed Circuit Board     | Silver                     | CKF1059        | CKF1049             | CKF1054           | CKF1044             |
|                           | Gold Flash                 | CKF1512        | CKF1506             | CKF1524           | CKF1528             |
|                           | Gold Plate                 | CKF1475        | CKF1312             | CKF2460           | CKF2461             |
| <b>1 POLE 12 POSITION</b> | <b>CONTINUOUS ROTATION</b> |                |                     |                   |                     |
| Solder Tag                | Silver                     | CKF1038        | CKF1028             | CKF1033           | CKF1023             |
|                           | Gold Flash                 | CKF1533        | CKF1537             | CKF1541           | CKF1545             |
|                           | Gold Plate                 | CKF2445        | CKF2446             | CKF2462           | CKF2463             |
| Printed Circuit Board     | Silver                     | CKF1058        | CKF1048             | CKF1053           | CKF1043             |
|                           | Gold Flash                 | CKF1534        | CKF1538             | CKF1542           | CKF1546             |
|                           | Gold Plate                 | CKF2447        | CKF2448             | CKF2464           | CKF2465             |
| <b>2 POLE 6 POSITION</b>  | <b>STOP INCLUDED</b>       |                |                     |                   |                     |
| Solder Tag                | Silver                     | CKF1040        | CKF1030             | CKF1035           | CKF1025             |
|                           | Gold Flash                 | CKF1509        | CKF1496             | CKF1517           | CKF1521             |
|                           | Gold Plate                 | CKF2449        | CKF1726             | CKF2466           | CKF2467             |
| Printed Circuit Board     | Silver                     | CKF1060        | CKF1050             | CKF1055           | CKF1045             |
|                           | Gold Flash                 | CKF1513        | CKF1473             | CKF1525           | CKF1529             |
|                           | Gold Plate                 | CKF2450        | CKF1850             | CKF2468           | CKF2469             |
| <b>2 POLE 6 POSITION</b>  | <b>CONTINUOUS ROTATION</b> |                |                     |                   |                     |
| Solder Tag                | Silver                     | CKF1114        | CKF1118             | CKF1120           | CKF1121             |
|                           | Gold Flash                 | CKF1535        | CKF1539             | CKF1543           | CKF1547             |
|                           | Gold Plate                 | CKF2451        | CKF2452             | CKF2470           | CKF2471             |
| Printed Circuit Board     | Silver                     | CKF1119        | CKF1113             | CKF1122           | CKF1089             |
|                           | Gold Flash                 | CKF1536        | CKF1540             | CKF1544           | CKF1548             |
|                           | Gold Plate                 | CKF2453        | CKF2454             | CKF2472           | CKF2473             |
| <b>3 POLE 4 POSITION</b>  | <b>STOP INCLUDED</b>       |                |                     |                   |                     |
| Solder Tag                | Silver                     | CKF1041        | CKF1031             | CKF1036           | CKF1026             |
|                           | Gold Flash                 | CKF1510        | CKF1504             | CKF1518           | CKF1522             |
|                           | Gold Plate                 | CKF2455        | CKF1577             | CKF2474           | CKF2475             |
| Printed Circuit Board     | Silver                     | CKF1061        | CKF1051             | CKF1056           | CKF1046             |
|                           | Gold Flash                 | CKF1514        | CKF1500             | CKF1526           | CKF1530             |
|                           | Gold Plate                 | CKF2456        | CKF1952             | CKF2476           | CKF2477             |
| <b>4 POLE 3 POSITION</b>  | <b>STOP INCLUDED</b>       |                |                     |                   |                     |
| Solder Tag                | Silver                     | CKF1042        | CKF1032             | CKF1037           | CKF1027             |
|                           | Gold Flash                 | CKF1511        | CKF1505             | CKF1519           | CKF1523             |
|                           | Gold Plate                 | CKF1673        | CKF1822             | CKF2478           | CKF2479             |
| Printed Circuit Board     | Silver                     | CKF1062        | CKF1052             | CKF1057           | CKF1047             |
|                           | Gold Flash                 | CKF1515        | CKF1507             | CKF1527           | CKF1531             |
|                           | Gold Plate                 | CKF2457        | CKF1953             | CKF2480           | CKF2481             |

CUSTOMER TO COMPLETE OR DELETE AS REQUIRED



|          | A           | B | C                               |
|----------|-------------|---|---------------------------------|
| IMPERIAL | $\phi 6.35$ |   | $\phi 9.52 \times 32\text{TPI}$ |
| METRIC   | $\phi 6.00$ |   | M10 x 0.75                      |

|          | D | E | F |
|----------|---|---|---|
| IMPERIAL |   |   |   |
| METRIC   |   |   |   |

| INDEXING  |     |     |     | INDEXING  |     |     |     | INDEXING  |     |     |     | INDEXING  |     |     |     |
|-----------|-----|-----|-----|-----------|-----|-----|-----|-----------|-----|-----|-----|-----------|-----|-----|-----|
|           |     |     |     |           |     |     |     |           |     |     |     |           |     |     |     |
| 1 POLE    |     |     |     | 2 POLE    |     |     |     | 3 POLE    |     |     |     | 4 POLE    |     |     |     |
| POSITIONS |     |     |     | POSITIONS |     |     |     | POSITIONS |     |     |     | POSITIONS |     |     |     |
| MBB       | BBM | SOL | PCB | MBB       | BBM | SOL | PCB | MBB       | BBM | SOL | PCB | MBB       | BBM | SOL | PCB |

**IMPORTANT!** WAFERS FLATS & SLOTS VIEWED FROM THE FRONT OF SWITCH IN EXTREME ANTICLOCKWISE POSITION (POSITION 1)

SPECIAL REQUIREMENTS

**OPTIONS** Stops are adjustable 2-12 positions. Continuous rotation (No Stops) available. Make before break (MBB) or Break before Make (BBM) rotors available. Solder Tag (SOL) or PCB pin (PCB) – indicate on wafer.

CUSTOMER:

DATE:

CUSTOMER REFERENCE NUMBER: