

Series CCP-38S Low PIM Multi-Throw DC-3 GHz Normally Open Coaxial Switch

PART NUMBER DESCRIPTION

CCP-38S Commercial Normally Open Multi-throw, DC-3GHz, Low PIM

These switches have extremely low passive intermodulation for use in narrow bandwidth communications applications.

The CCP38S is a broadband, multi-throw, electromechanical coaxial switch designed to switch a microwave signal from a common input to any of 3, 4, 5, or 6 outputs. The characteristic impedance is 50 Ohms. The switches are small using the popular connector spacing on a 1.062" dia. circle. Each position has an individual actuator mechanism allowing random position selection. This also gives the minimum switching time.

With the normally open actuator, all paths are open when the switch is de-energized.

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| ENVIRONMENTAL AND PHYSICA | L CHARACTERISTICS |
|---|-----------------------|
| Operating Temperature | -40°C to 65°C |
| Vibration (MIL-STD-202 Method 214, Condition D, non-operating) | 10 g's RMS |
| Shock (MIL-STD-202 Method 213, Condition D, non-operating) | 500 g's |
| Standard Actuator Life | 1,000,000 cycles |
| Connector Type | SMA |
| Humidity (Moisture Seal) | Available |
| Weight | 9 oz. (255.2g) (max.) |

| ELECTRICAL CHARACTERISTICS | | | | | | | | | |
|-----------------------------------|-----------------|--------------|-----|-----|----|--|--|--|--|
| Form Factor | Multi- break | | | e | | | | | |
| Frequency Range DC–3 GHz | | | | | | | | | |
| Characteristic Impedance 50 Ohms | | | | | | | | | |
| Switching Time | 15 ms | 15 ms (max.) | | | | | | | |
| Actuation Voltage Available | 12 | 15 | 24 | 28 | V | | | | |
| Actuation Current, max. @ ambient | 400 | 205 | 170 | 140 | mΑ | | | | |

| PERFORMANCE CHARACTERISTICS | | | | | | |
|-----------------------------|--------|--|--|--|--|--|
| Frequency DC-3 GHz | | | | | | |
| Insertion Loss, dB, max. | 0.2 | | | | | |
| Isolation, dB, min. | 70 | | | | | |
| VSWR , max. | 1.25:1 | | | | | |
| RF Power (cw), W, max. | 100 | | | | | |

| PASSIVE INTERMODULATION CHARACTERISTICS | | | | | | | | | |
|---|---------------------------|------------------------|------------------------|--|--|--|--|--|--|
| Tone 1 Frequency (MHz) | Tone 2 Frequency (MHz) | IM3 Frequency (MHz) | PIM Threshold (dBc) | | | | | | |
| 1945 | 1990 | 1900 | -140.0 | | | | | | |
| | | | | | | | | | |
| P1 P2 (dBm) | PIM (dBc) | PEAK PIM (dBc) | | | | | | | |
| 43 | -153.9 | -144.1 | | | | | | | |

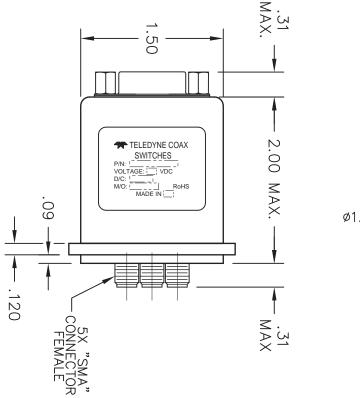
PART NUMBERING SYSTEM

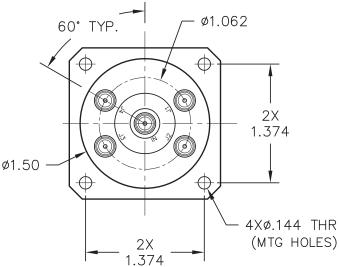
| | Series Connectors Actuator Voltage | <u>CCP-38</u> <u>S</u> <u>1</u> | | Options Actuator Type Number of Positions |
|----------------|--|---------------------------------|--------------------------|--|
| CONNECTOR | ACTUATOR VOLTAGE | NUMBER OF POSITIONS | ACTUATOR TYPE | OPTIONS |
| S: SMA FEMALE | 1: 28 VDC NORMALLY OPEN | 3: SP3T | 0: NO INDICATOR CONTACTS | T: TTL DRIVERS WITH DIODES |
| | 2: 15 VDC NORMALLY OPEN | 4: SP4T | C: INDICATOR CONTACTS | D: COIL TRANSIENT SUPPRESSION DIODES |
| | 3: 12 VDC NORMALLY OPEN | 5: SP5T | | S: D-SUB CONNECTOR* |
| | 4: 24 VDC NORMALLY OPEN | 6: SP6T | | TD: DECODERS AND TTL DRIVERS WITH DIODES |
| | | **SEE PARTS | LIST ON PAGE 10 | M: MOISTURE SEAL |
| For additional | options, please contact | factory. | | D-Sub Connector may be 9 or 15 pin depending on umber of throws. (See Connector Pinout page) |

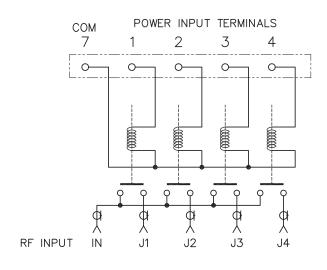
Low PIM Multi-Throw DC–3 GHz Normally Open Coaxial Switch





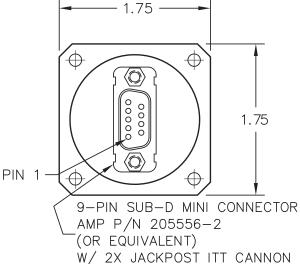






SCHEMATIC

SHOWN IN NORMALLY OPEN POSITION

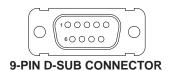


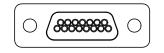
D110551 (OR EQUIVALENT)



| CONNECTOR | CONNECTOR PINOUT FOR NORMALLY OPEN SP3T MULTI-THROW SWITCHES | | | | | | | | | | |
|----------------|--|-------------------|---------------|-------------------|----------------|-------------------|--|--|--|--|--|
| Example | CCP-38S130-S | CCP-38S13C-S | CCP-38S130-TS | CCP-38S13C-TS | CCP-38S130-TDS | CCP-38S13C-TDS | | | | | |
| INDICATOR | | Yes | | Yes | | Yes | | | | | |
| TTL | | | Yes | Yes | | | | | | | |
| DECODERS & TTL | | | | | Yes | Yes | | | | | |
| PIN NO. | 9-Pin | 9-Pin | 9-PIN | 9-Pin | 9-Pin | 9-Pin | | | | | |
| 1 | Port 1 | Port 1 | Port 1 | Port 1 | Logic 1 | Logic 1 | | | | | |
| 2 | Port 2 | Port 2 | Port 2 | Port 2 | Logic 2 | Logic 2 | | | | | |
| 3 | Port 3 | Port 3 | Port 3 | Port 3 | | | | | | | |
| 4 | | E INDICATOR | | E INDICATOR | | E INDICATOR | | | | | |
| 5 | | F INDICATOR | | F INDICATOR | | F INDICATOR | | | | | |
| 6 | | G INDICATOR | | G INDICATOR | | G INDICATOR | | | | | |
| 7 | Соммон | Соммон | Соммон | Соммон | Соммон | Соммон | | | | | |
| 8 | | | Vsw | Vsw | Vsw | Vsw | | | | | |
| 9 | | D INDICATOR (COM) | | D INDICATOR (COM) | | D INDICATOR (COM) | | | | | |

| CONNECTOR | PINOUT FOR NO | RMALLY OPEN S | P4T MULTI-THRC | W SWITCHES | | |
|----------------|---------------|-------------------|----------------|-------------------|----------------|-------------------|
| Example | CCP-38S140-S | CCP-38S14C-S | CCP-38S140-TS | CCP-38S14C-TS | CCP-38S140-TDS | CCP-38S14C-TDS |
| INDICATOR | | Yes | | Yes | | Yes |
| TTL | | | Yes | Yes | | |
| DECODERS & TTL | | | | | Yes | Yes |
| PIN NO. | 9-Pin | 15-Pin | 9-Pin | 15-Pin | 9-Pin | 15-Pin |
| 1 | Port 1 | Port 1 | TTL 1 | TTL 1 | Logic 1 | Logic 1 |
| 2 | Port 2 | Port 2 | TTL 2 | TTL 2 | Logic 2 | Logic 2 |
| 3 | Port 3 | Port 3 | TTL 3 | TTL 3 | Logic 3 | Logic 3 |
| 4 | Port 4 | Port 4 | TTL 4 | TTL 4 | | |
| 5 | | | | | | |
| 6 | | | | | | |
| 7 | Соммон | Соммон | Соммон | Соммон | Соммон | Соммон |
| 8 | | | Vsw | Vsw | Vsw | Vsw |
| 9 | | D INDICATOR (COM) | | D INDICATOR (COM) | | D INDICATOR (COM) |
| 10 | | E INDICATOR | | E INDICATOR | | E INDICATOR |
| 11 | | F INDICATOR | | F INDICATOR | | F INDICATOR |
| 12 | N/A | G INDICATOR | N/A | G INDICATOR | N/A | G INDICATOR |
| 13 | N/A | H INDICATOR | N/A | H Indicator | N/A | H Indicator |
| 14 | | | | | | |
| 15 | | | | | | |





15-PIN D-MICRO CONNECTOR

Low PIM Multi-Throw DC-3 GHz Normally Open Coaxial Switch



| CONNECTOR | R PINOUT FOR | NORMALLY OPE | EN SP5T MULTI-T | HROW SWITCH | S | |
|----------------|--------------|-------------------|-----------------|-------------------|----------------|-------------------|
| EXAMPLE | CCP-38S150-S | CCP-38S15C-S | CCP-38S150-TS | CCP-38S15C-TS | CCP-38S150-TDS | CCP-38S15C-TDS |
| INDICATOR | | Yes | | Yes | | Yes |
| TTL | | | Yes | Yes | | |
| DECODERS & TTL | | | | | Yes | Yes |
| PIN NO. | 9-Pin | 15-PiN | 9-P1N | 15-Pin | 9-Pin | 15-PiN |
| 1 | Port 1 | Port 1 | TTL 1 | TTL 1 | Logic 1 | Logic 1 |
| 2 | Port 2 | Port 2 | TTL 2 | TTL 2 | Logic 2 | Logic 2 |
| 3 | Port 3 | Port 3 | TTL 3 | .3 TTL 3 Logic 3 | | Logic 3 |
| 4 | Port 4 | Port 4 | TTL 4 | TTL 4 | | |
| 5 | Port 5 | Port 5 | TTL 5 | TTL 5 | | |
| 6 | | | | | | |
| 7 | COMMON | COMMON | Соммон | Соммон | COMMON | Соммон |
| 8 | | | Vsw | Vsw | Vsw | Vsw |
| 9 | | D INDICATOR (COM) | | D INDICATOR (COM) | | D INDICATOR (COM) |
| 10 | | E INDICATOR | | E INDICATOR | | E INDICATOR |
| 11 | | F INDICATOR | | F INDICATOR | | F INDICATOR |
| 12 | N/A | G INDICATOR | N/A | G INDICATOR | N/A | G INDICATOR |
| 13 | N/A | H Indicator | N/A | H Indicator | N/A | H INDICATOR |
| 14 | | K INDICATOR | | K INDICATOR | | K INDICATOR |
| 15 | | | | | | |

| CONNECTOR | R PINOUT FOR | NORMALLY OPE | EN SP6T MULTI-T | HROW SWITCH | S | |
|----------------|--------------|-------------------|---------------------|-------------------|----------------|-------------------|
| Example | CCP-38S160-S | CCP-38S16C-S | CCP-38S160-TS | CCP-38S16C-TS | CCP-38S160-TDS | CCP-38S16C-TDS |
| INDICATOR | | Yes | | Yes | | Yes |
| TTL | | | Yes | Yes | | |
| DECODERS & TTL | | | | | Yes | Yes |
| PIN NO. | 9-Pin | 15-PiN | 9-PIN | 15-Pin | 9-Pin | 15-Pin |
| 1 | Port 1 | Port 1 | TTL 1 | TTL 1 | Logic 1 | Logic 1 |
| 2 | Port 2 | Port 2 | TTL 2 | TTL 2 | Logic 2 | Logic 2 |
| 3 | Port 3 | Port 3 | TTL 3 TTL 3 Logic 3 | | Logic 3 | Logic 3 |
| 4 | Port 4 | Port 4 | TTL 4 | TTL 4 | | |
| 5 | Port 5 | Port 5 | TTL 5 | TTL 5 | | |
| 6 | Port 6 | Port 6 | TTL 6 | TTL 6 | | |
| 7 | Соммон | COMMON | Соммон | Соммон | COMMON | Common |
| 8 | | | Vsw | Vsw | Vsw | Vsw |
| 9 | | D INDICATOR (COM) | | D INDICATOR (COM) | | D INDICATOR (COM) |
| 10 | | E INDICATOR | | E INDICATOR | | E INDICATOR |
| 11 | | F INDICATOR | | F INDICATOR | | F INDICATOR |
| 12 | N/A | G INDICATOR | N/A | G INDICATOR | N/A | G INDICATOR |
| 13 | N/A | H INDICATOR | N/A | H INDICATOR | N/A | H INDICATOR |
| 14 | | K INDICATOR | | K INDICATOR | | K INDICATOR |
| 15 | | L INDICATOR | | L INDICATOR | | L INDICATOR |



| | TRUTH TABLE Normally Open CCP-38SX3C-T | | | | | | | | | | |
|---|---|---|-------------------------------|-----|-----|-----|--|---|---|---|--|
| | gic out | | RF Path Indicator Switches | | | | | | | | |
| 1 | 2 | 3 | J | 1 | J2 | J3 | | Е | F | G | |
| 1 | 0 | 0 | C | n | Off | Off | | С | 0 | 0 | |
| 0 | 1 | 0 | С | Off | On | Off | | 0 | С | 0 | |
| 0 | 0 | 1 | С | Off | Off | On | | 0 | 0 | С | |

| TRUTH TABLE Normally Open CCP-38SX3C-TD | | | | | | | | | | |
|--|---|---------|-----|-----|--|---|-------------------|---|--|--|
| Lo: Inp | | RF Path | | | | | ndicato witche | | | |
| 1 | 2 | J1 | J2 | J3 | | Е | F | G | | |
| 0 | 0 | On | Off | Off | | С | 0 | 0 | | |
| 1 | 0 | Off | On | Off | | 0 | С | 0 | | |
| 0 | 1 | Off | Off | On | | 0 | 0 | С | | |
| 1 | 1 | Off | Off | Off | | 0 | 0 | 0 | | |

| | TRUTH TABLE Normally Open CCP-38SX4C-T | | | | | | | | | | | | |
|----|---|-----|---|-----|-----|------|-----|--|---|---|---------------|---|--|
| Lo | gic Inp | out | | | RF | Path | | | | | cator ches | | |
| 1 | 2 | 3 | 4 | J1 | J2 | J3 | J4 | | Е | F | G | Н | |
| 1 | 0 | 0 | 0 | On | Off | Off | Off | | С | 0 | 0 | 0 | |
| 0 | 1 | 0 | 0 | Off | On | Off | Off | | 0 | С | 0 | 0 | |
| 0 | 0 | 1 | 0 | Off | Off | On | Off | | 0 | 0 | С | 0 | |
| 0 | 0 | 0 | 1 | Off | Off | Off | On | | 0 | 0 | 0 | С | |

| | TRUTH TABLE Normally Open CCP-38SX4C-TD | | | | | | | | | | | | |
|----|--|-----|----|------|-------|-----|-----------------------|---|---|---|---|--|--|
| Lo | gic Inp | out | | RF | Path | | Indicator Switches | | | | | | |
| 1 | 2 | 3 | J1 | J2 | J3 | J4 | | Е | F | G | Н | | |
| 0 | 0 | 0 | 0 | n Of | f Off | Off | | С | 0 | 0 | 0 | | |
| 1 | 0 | 0 | Of | f Or | Off | Off | | 0 | С | 0 | 0 | | |
| 0 | 1 | 0 | Of | f Of | f On | Off | - | 0 | 0 | С | 0 | | |
| 1 | 1 | 0 | Of | f Of | f Off | On | - | 0 | 0 | 0 | С | | |
| 1 | 1 | 1 | Of | f Of | f Off | Off | - | 0 | 0 | 0 | 0 | | |

Low PIM Multi-Throw DC–3 GHz Normally Open Coaxial Switch



TRUTH TABLE Normally Open CCP-38SX5C-T

| CCF | -3858 | 5C-1 | | | | | | | | | | | | | | | | | | |
|-------------|-------|------|---|---|---|---------|-----|-----|-----|--|---|---|--------------------|---|---|--|--|--|--|--|
| Logic Input | | | | | | RF Path | | | | | | | Indicator Switches | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | J | J2 | J3 | J4 | J5 | | Е | F | G | Н | К | | | | | |
| 1 | 0 | 0 | 0 | 0 | 0 | n Off | Off | Off | Off | | С | 0 | 0 | 0 | 0 | | | | | |
| 0 | 1 | 0 | 0 | 0 | 0 | f On | Off | Off | Off | | 0 | С | 0 | 0 | 0 | | | | | |
| 0 | 0 | 1 | 0 | 0 | 0 | f Off | On | Off | Off | | 0 | 0 | С | 0 | 0 | | | | | |
| 0 | 0 | 0 | 1 | 0 | 0 | f Off | Off | On | Off | | 0 | 0 | 0 | С | 0 | | | | | |
| 0 | 0 | 0 | 0 | 1 | 0 | f Off | Off | Off | On | | 0 | 0 | 0 | 0 | С | | | | | |
| | | | | | | | | | | | | | | | | | | | | |

TRUTH TABLE Normally Open CCP-38SX5C-TD

| Lo | ogic Inp | out | | RF Path | | | | | | | Indicator Switches | | | | | | | |
|----|----------|-----|-----|---------|-----|-----|-----|--|---|---|--------------------|---|---|--|--|--|--|--|
| 1 | 2 | 3 | J1 | J2 | J3 | J4 | J5 | | Е | F | G | Н | Κ | | | | | |
| 0 | 0 | 0 | On | Off | Off | Off | Off | | С | 0 | 0 | 0 | 0 | | | | | |
| 1 | 0 | 0 | Off | On | Off | Off | Off | | 0 | С | 0 | 0 | 0 | | | | | |
| 0 | 1 | 0 | Off | Off | On | Off | Off | | 0 | 0 | С | 0 | 0 | | | | | |
| 1 | 1 | 0 | Off | Off | Off | On | Off | | 0 | 0 | 0 | С | 0 | | | | | |
| 0 | 0 | 1 | Off | Off | Off | Off | On | | 0 | 0 | 0 | 0 | С | | | | | |
| 1 | 1 | 1 | Off | Off | Off | Off | Off | | 0 | 0 | 0 | 0 | 0 | | | | | |

TRUTH TABLE Normally Open CCP-38SX6C-T

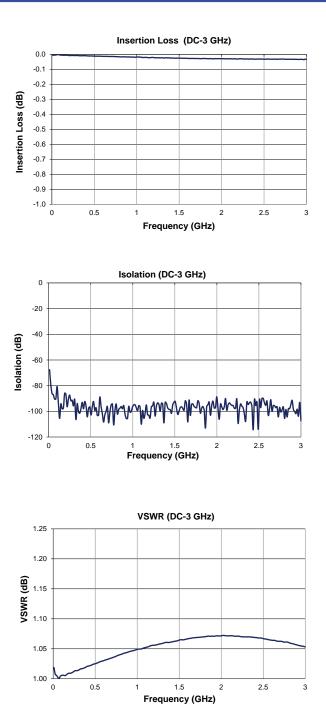
| 001- | 000/0 | 1-00 | | | | | | | | | | | | | | | | |
|------|---------|------|---|---|---|---|-----|-----|-----|------|-----|-----|---|-------|------|------|------|---|
| Lo | gic Inp | out | | | | | | | RF | Path | | | | Indic | ator | Swit | ches | ; |
| 1 | 2 | 3 | 4 | 5 | 6 | | J1 | J2 | J3 | J4 | J5 | J6 | Е | F | G | Н | Κ | L |
| 1 | 0 | 0 | 0 | 0 | 0 | | On | Off | Off | Off | Off | Off | С | 0 | 0 | 0 | 0 | 0 |
| 0 | 1 | 0 | 0 | 0 | 0 | - | Off | On | Off | Off | Off | Off | 0 | С | 0 | 0 | 0 | 0 |
| 0 | 0 | 1 | 0 | 0 | 0 | | Off | Off | On | Off | Off | Off | 0 | 0 | С | 0 | 0 | 0 |
| 0 | 0 | 0 | 1 | 0 | 0 | - | Off | Off | Off | On | Off | Off | 0 | 0 | 0 | С | 0 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 | | Off | Off | Off | Off | On | Off | 0 | 0 | 0 | 0 | С | 0 |
| 0 | 0 | 0 | 0 | 0 | 1 | | Off | Off | Off | Off | Off | On | 0 | 0 | 0 | 0 | 0 | С |

TRUTH TABLE Normally Open CCP-38SX6C-TD

| CCP- | -385X6 | SC-TD | | | | | | | | | | | | | | | | |
|------|----------|-------|-----|---------|-----|-----|-----|-----|--|---|--------------------|---|---|---|---|--|--|--|
| Lc | ogic Inp | out | | RF Path | | | | | | | Indicator Switches | | | | | | | |
| 1 | 2 | 3 | J1 | J2 | J3 | J4 | J5 | J6 | | Е | F | G | Н | Κ | L | | | |
| 0 | 0 | 0 | On | Off | Off | Off | Off | Off | | С | 0 | 0 | 0 | 0 | 0 | | | |
| 1 | 0 | 0 | Off | On | Off | Off | Off | Off | | 0 | С | 0 | 0 | 0 | 0 | | | |
| 0 | 1 | 0 | Off | Off | On | Off | Off | Off | | 0 | 0 | С | 0 | 0 | 0 | | | |
| 1 | 1 | 0 | Off | Off | Off | On | Off | Off | | 0 | 0 | 0 | С | 0 | 0 | | | |
| 0 | 0 | 1 | Off | Off | Off | Off | On | Off | | 0 | 0 | 0 | 0 | С | 0 | | | |
| 1 | 0 | 1 | Off | Off | Off | Off | Off | On | | 0 | 0 | 0 | 0 | 0 | С | | | |
| 1 | 1 | 1 | Off | Off | Off | Off | Off | Off | | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| | | | | | | | | | | | | | | | | | | |



TYPICAL BROADBAND RF PERFORMANCE CURVES

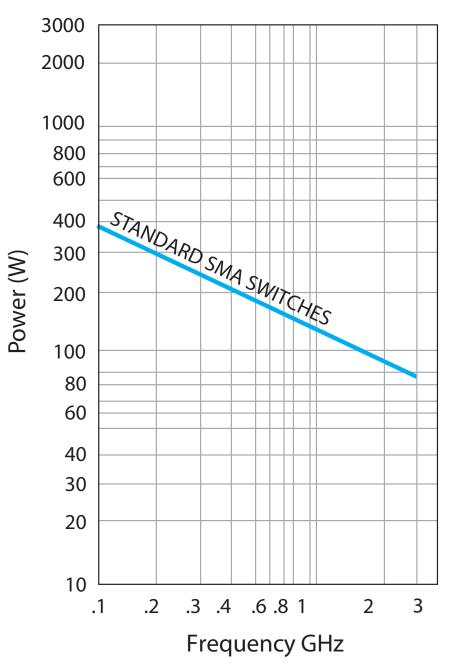


RF NOTES

TYPICAL POWER PERFORMANCE CURVE



Power Handling vs. Frequency



Estimates based on the following reference conditions:

- Ambient temperature of 40°C or less
- Sea level operation
- · Load VSWR of 1.20:1 maximum

• No high-power (hot) switching

Please contact Teledyne Coax Switches for derating factors when applications do not meet the foregoing reference conditions.



GLOSSARY

Actuator

An actuator is the electromechanical mechanism that transfers the RF contacts from one position to another upon DC command.

Arc Suppression Diode

A diode is connected in parallel with the coil. This diode limits the "reverse EMF spike" generated when the coil deenergizes to 0.7 volts. The diode cathode is connected to the positive side of the coil and the anode is connected to the negative side.

Date Code

All switches are marked with either a unique serial number or a date code. Date codes are in accordance with MIL-STD-1285 Paragraph 5.2.5 and consist of four digits. The first two digits define the year and the last two digits define the week of the year (YYWW). Thus, 1032 identifies switches that passed through final inspection during the 32nd week of 2010.

Indicator

Indicators tell the system which position the switch is in. Other names for indicators are telemetry contacts or tellback circuit. Indicators are usually a set of internally mounted DC contacts linked to the actuator. They can be wired to digital input lines, status lights, or interlocks. Unless otherwise specified, the maximum indicator contact rating is 30 Vdc, 50 mA, or 1.5 Watts into a resistive load.

Isolation

Isolation is the measure of the power level at the output connector of an unconnected RF channel as referenced to the power at the input connector. It is specified in dB below the input power level.

Multi-Throw Switch

A multi-throw switch is a switch with one input and three or more output ports. The CCR-38 can switch a microwave signal to any of 2,3,4,5 or 6 output from a single common input.

Switching Time

Switching time is the total interval beginning with the arrival of the leading edge of the command pulse at the switch DC input and ending with the completion of the switch transfer, including contact bounce. It consists of three parts: (1) inductive delay in the coil, (2) transfer time of the physical movement of the contacts, and (3) the bounce time of the RF contacts.

TTL Switch Driver Option

As a special option, switch drivers can be provided for both failsafe and latching switches, which are compatible with industry-standard low-power Schottky TTL circuits.

TD-Option

This option includes a decoder. The 3-bit parallel command is decoded to internally select the appropriate position. See the logic tables. The TD-Option increases the Vsw supply current demand by 50mA max at 28Vdc and +20°C.

Performance Parameters vs Frequency

Generally speaking, the RF performance of coaxial switches is frequency dependent. With increasing frequency, VSWR and insertion loss increase while isolation decreases. All data sheets specify these three parameters as "worst case" at the highest operating frequency. If the switch is to be used over a narrow frequency band, better performance can be achieved.

Actuator Current vs Temperature

The resistance of the actuator coil varies as a function of temperature. There is an inverse relationship between the operating temperature of the switch and the actuator drive current. For switches operating at 28 VDC, the approximate actuator drive current at temperature, T, can be calculated using the equation:

$$I_{\rm T} = \frac{I_{\rm A}}{[1 + .00385 \, ({\rm T}-20)]}$$

Where:

 I_{τ} = Actuator current at temperature, T

I_A = Room temperature actuator current – see data sheet

T = Temperature of interest in °C

Magnetic Sensitivity

An electro-mechanical switch can be sensitive to ferrous materials and external magnetic fields. Neighboring ferrous materials should be permitted no closer than 0.5 inches and adjacent external magnetic fields should be limited to a flux density of less than 5 Gauss.

Low PIM Multi-Throw DC-3 GHz

Normally Open Coaxial Switch



NORMALLY OPEN CCP-38S PART NUMBER LIST

| Part No. Part No. Part No. Part No. 1 CCP-38SX3C 43 CCP-38SX40 85 CCP-38SX6C-D 2 CCP-38SX3C-D 44 CCP-38SX40-DM 87 CCP-38SX6C-DM 4 CCP-38SX3C-MM 46 CCP-38SX40-M 88 CCP-38SX6C-M 5 CCP-38SX3C-MS 47 CCP-38SX40-M 89 CCP-38SX6C-TM 6 CCP-38SX3C-T 49 CCP-38SX40-T 91 CCP-38SX6C-TD 7 CCP-38SX3C-TDM 51 CCP-38SX40-TD 92 CCP-38SX6C-TM 8 CCP-38SX3C-TDM 52 CCP-38SX40-TDM 93 CCP-38SX6C-TM 10 CCP-38SX3C-TDM 52 CCP-38SX40-TM 96 CCP-38SX6C-TM 11 CCP-38SX3C-TDS 55 CCP-38SX40-TM 96 CCP-38SX6C-TM 12 CCP-38SX3C-TS 56 CCP-38SX40-TM 96 CCP-38SX6C-TM 12 CCP-38SX30-T 58 CCP-38SX6C-TM 100 CCP-38SX6C-TM 14 CCP | | 1 | | | | |
|--|----|-----------------|----|-----------------|-----|-----------------|
| 2 CCP-38SX3C-D 44 CCP-38SX40-D 86 CCP-38SX6C-D 3 CCP-38SX3C-DM 45 CCP-38SX40-DM 87 CCP-38SX6C-DM 4 CCP-38SX3C-M 46 CCP-38SX40-DM 88 CCP-38SX6C-MS 5 CCP-38SX3C-S 48 CCP-38SX40-TS 90 CCP-38SX6C-S 7 CCP-38SX3C-TD 50 CCP-38SX40-TD 91 CCP-38SX6C-TD 9 CCP-38SX3C-TDM 51 CCP-38SX40-TD 92 CCP-38SX6C-TD 9 CCP-38SX3C-TDM 52 CCP-38SX40-TD 92 CCP-38SX6C-TD 10 CCP-38SX3C-TDS 53 CCP-38SX40-TD 95 CCP-38SX6C-TD 11 CCP-38SX3C-TMS 55 CCP-38SX40-TM 96 CCP-38SX6C-TS 12 CCP-38SX3C-TS 56 CCP-38SX40-TS 98 CCP-38SX6C-TS 14 CCP-38SX30-D 58 CCP-38SX40-TS 98 CCP-38SX6C-TS 14 CCP-38SX30-D 58 CCP-38SX5C-D 100 CCP-38SX60-TD | | Part No. | | Part No. | | Part No. |
| 3 CCP-38SX3C-DM 45 CCP-38SX40-DM 87 CCP-38SX6C-DM 4 CCP-38SX3C-M 46 CCP-38SX40-M 88 CCP-38SX6C-M 5 CCP-38SX3C-MS 47 CCP-38SX40-MS 89 CCP-38SX6C-MS 6 CCP-38SX3C-T 49 CCP-38SX40-TD 91 CCP-38SX6C-TD 8 CCP-38SX3C-TDM 51 CCP-38SX40-TD 92 CCP-38SX6C-TDM 9 CCP-38SX3C-TDM 51 CCP-38SX40-TDM 93 CCP-38SX6C-TDM 10 CCP-38SX3C-TDM 52 CCP-38SX40-TDM 94 CCP-38SX6C-TDM 11 CCP-38SX3C-TM 54 CCP-38SX40-TDS 95 CCP-38SX6C-TM 12 CCP-38SX3C-TM 54 CCP-38SX40-TS 98 CCP-38SX6C-TM 12 CCP-38SX3C-TM 55 CCP-38SX40-TS 98 CCP-38SX6C-TM 13 CCP-38SX30-D 58 CCP-38SX6C-D 100 CCP-38SX60-D 14 CCP-38SX30-D 58 CCP-38SX6C-D 100 CCP-38SX60-D< | 1 | CCP-38SX3C | 43 | CCP-38SX40 | 85 | CCP-38SX6C |
| 4 CCP-38SX3C-M 46 CCP-38SX40-M 88 CCP-38SX6C-M 5 CCP-38SX3C-S 47 CCP-38SX40-MS 89 CCP-38SX6C-MS 6 CCP-38SX3C-S 48 CCP-38SX40-TD 90 CCP-38SX6C-TD 8 CCP-38SX3C-TD 50 CCP-38SX40-TD 91 CCP-38SX6C-TD 9 CCP-38SX3C-TDM 51 CCP-38SX40-TD 93 CCP-38SX6C-TDM 10 CCP-38SX3C-TDM 52 CCP-38SX40-TDM 94 CCP-38SX6C-TDM 11 CCP-38SX3C-TM 54 CCP-38SX40-TD 95 CCP-38SX6C-TM 12 CCP-38SX3C-TM 54 CCP-38SX40-TM 96 CCP-38SX6C-TM 12 CCP-38SX3C-TS 55 CCP-38SX60-TM 97 CCP-38SX6C-TM 14 CCP-38SX30-D 58 CCP-38SX6C-D 100 CCP-38SX60-D 16 CCP-38SX30-D 58 CCP-38SX5C-D 100 CCP-38SX60-D 16 CCP-38SX30-D 58 CCP-38SX5C-D 100 CCP-38SX60-D | 2 | CCP-38SX3C-D | 44 | CCP-38SX40-D | 86 | CCP-38SX6C-D |
| 5 CCP-38SX3C-MS 47 CCP-38SX40-MS 89 CCP-38SX6C-MS 6 CCP-38SX3C-T 49 CCP-38SX40-T 91 CCP-38SX6C-T 7 CCP-38SX3C-TD 50 CCP-38SX40-TD 92 CCP-38SX6C-TD 8 CCP-38SX3C-TD 50 CCP-38SX40-TD 92 CCP-38SX6C-TD 9 CCP-38SX3C-TD 51 CCP-38SX40-TD 93 CCP-38SX6C-TDM 10 CCP-38SX3C-TDS 53 CCP-38SX40-TD 95 CCP-38SX6C-TDM 11 CCP-38SX3C-TM 54 CCP-38SX40-TS 96 CCP-38SX6C-TM 12 CCP-38SX3C-TS 56 CCP-38SX40-TS 98 CCP-38SX6C-TS 15 CCP-38SX30-D 58 CCP-38SX6C-D 100 CCP-38SX60-D 14 CCP-38SX30-D 58 CCP-38SX5C-D 100 CCP-38SX60-D 16 CCP-38SX30-D 59 CCP-38SX6C-T 102 CCP-38SX60-D 17 CCP-38SX30-T 63 CCP-38SX5C-T 100 CCP-38SX60-T | 3 | CCP-38SX3C-DM | 45 | CCP-38SX40-DM | 87 | CCP-38SX6C-DM |
| 6 CCP-38SX3C-S 48 CCP-38SX40-S 90 CCP-38SX6C-S 7 CCP-38SX3C-TD 50 CCP-38SX40-TD 91 CCP-38SX6C-TD 9 CCP-38SX3C-TDM 51 CCP-38SX40-TDM 93 CCP-38SX6C-TDM 10 CCP-38SX3C-TDMS 52 CCP-38SX40-TDMS 94 CCP-38SX6C-TDM 11 CCP-38SX3C-TDM 54 CCP-38SX40-TDM 96 CCP-38SX6C-TDS 12 CCP-38SX3C-TS 56 CCP-38SX40-TD 97 CCP-38SX6C-TM 13 CCP-38SX30-TS 56 CCP-38SX40-TS 98 CCP-38SX60-TM 14 CCP-38SX30-D 58 CCP-38SX6C-D 100 CCP-38SX60-D 16 CCP-38SX30-D 58 CCP-38SX6C-M 102 CCP-38SX60-D 17 CCP-38SX30-M 60 CCP-38SX5C-M 100 CCP-38SX60-M 19 CCP-38SX30-T 63 CCP-38SX5C-T 106 CCP-38SX60-TD 20 CCP-38SX30-TD 64 CCP-38SX6C-TD 106 CCP-38SX60 | 4 | CCP-38SX3C-M | 46 | CCP-38SX40-M | 88 | CCP-38SX6C-M |
| 7 CCP-38SX3C-T 49 CCP-38SX40-T 91 CCP-38SX6C-T 8 CCP-38SX3C-TD 50 CCP-38SX40-TD 92 CCP-38SX6C-TDM 9 CCP-38SX3C-TDM 51 CCP-38SX40-TDM 93 CCP-38SX6C-TDM 10 CCP-38SX3C-TDM 52 CCP-38SX40-TDM 94 CCP-38SX6C-TDMS 11 CCP-38SX3C-TD 53 CCP-38SX40-TDM 96 CCP-38SX6C-TDMS 12 CCP-38SX3C-TM 54 CCP-38SX40-TM 96 CCP-38SX6C-TDS 12 CCP-38SX3C-TM 55 CCP-38SX40-TS 98 CCP-38SX6C-TMS 13 CCP-38SX30-TS 56 CCP-38SX40-TS 98 CCP-38SX60-TD 14 CCP-38SX30-D 58 CCP-38SX6C-M 100 CCP-38SX60-D 16 CCP-38SX30-M 60 CCP-38SX5C-M 102 CCP-38SX60-D 17 CCP-38SX30-TS 61 CCP-38SX5C-TM 106 CCP-38SX60-TD 18 CCP-38SX30-TS 62 CCP-38SX5C-TM 104 CCP- | 5 | CCP-38SX3C-MS | 47 | CCP-38SX40-MS | 89 | CCP-38SX6C-MS |
| 8 CCP-38SX3C-TD 50 CCP-38SX40-TD 92 CCP-38SX6C-TD 9 CCP-38SX3C-TDM 51 CCP-38SX40-TDM 93 CCP-38SX6C-TDM 10 CCP-38SX3C-TDMS 52 CCP-38SX40-TDMS 94 CCP-38SX6C-TDMS 11 CCP-38SX3C-TDS 53 CCP-38SX40-TDS 95 CCP-38SX6C-TM 12 CCP-38SX3C-TM 54 CCP-38SX40-TM 96 CCP-38SX6C-TM 13 CCP-38SX3C-TM 55 CCP-38SX40-TM 97 CCP-38SX6C-TM 14 CCP-38SX30-TS 56 CCP-38SX40-TS 98 CCP-38SX6C-TM 14 CCP-38SX30-D 58 CCP-38SX5C-D 100 CCP-38SX60-D 16 CCP-38SX30-D 58 CCP-38SX5C-M 101 CCP-38SX60-D 17 CCP-38SX30-DM 60 CCP-38SX5C-M 102 CCP-38SX60-M 18 CCP-38SX30-TD 61 CCP-38SX5C-TD 106 CCP-38SX60-TD 20 CCP-38SX30-TD 64 CCP-38SX5C-TD 106 CCP | 6 | CCP-38SX3C-S | 48 | CCP-38SX40-S | 90 | CCP-38SX6C-S |
| 9 CCP-38SX3C-TDM 51 CCP-38SX40-TDM 93 CCP-38SX6C-TDM 10 CCP-38SX3C-TDMS 52 CCP-38SX40-TDMS 94 CCP-38SX6C-TDMS 11 CCP-38SX3C-TDS 53 CCP-38SX40-TDS 95 CCP-38SX6C-TDS 12 CCP-38SX3C-TM 54 CCP-38SX40-TM 96 CCP-38SX6C-TM 13 CCP-38SX3C-TS 56 CCP-38SX40-TS 98 CCP-38SX6C-TM 14 CCP-38SX30-TS 56 CCP-38SX6C-D 99 CCP-38SX6C-TM 14 CCP-38SX30-D 57 CCP-38SX5C-D 100 CCP-38SX6C-TM 15 CCP-38SX30-DM 59 CCP-38SX5C-DM 101 CCP-38SX60-DM 16 CCP-38SX30-M 60 CCP-38SX5C-M 102 CCP-38SX60-DM 18 CCP-38SX30-T 63 CCP-38SX5C-TD 106 CCP-38SX60-TD 20 CCP-38SX30-TD 64 CCP-38SX5C-TD 106 CCP-38SX60-TD 21 CCP-38SX30-TDS 66 CCP-38SX5C-TDM 107 | 7 | CCP-38SX3C-T | 49 | CCP-38SX40-T | 91 | CCP-38SX6C-T |
| 10 CCP-38SX3C-TDMS 52 CCP-38SX40-TDMS 94 CCP-38SX6C-TDMS 11 CCP-38SX3C-TDS 53 CCP-38SX40-TDS 95 CCP-38SX6C-TDS 12 CCP-38SX3C-TM 54 CCP-38SX40-TM 96 CCP-38SX6C-TMS 13 CCP-38SX3C-TM 55 CCP-38SX40-TM 97 CCP-38SX6C-TMS 14 CCP-38SX3C-TS 56 CCP-38SX6C-D 98 CCP-38SX60-TS 15 CCP-38SX30-D 58 CCP-38SX5C-D 100 CCP-38SX60-D 17 CCP-38SX30-M 60 CCP-38SX5C-M 102 CCP-38SX60-M 18 CCP-38SX30-TM 61 CCP-38SX5C-M 102 CCP-38SX60-M 19 CCP-38SX30-T 63 CCP-38SX5C-T 105 CCP-38SX60-TD 21 CCP-38SX30-TD 64 CCP-38SX5C-T 106 CCP-38SX60-TD 22 CCP-38SX30-TDM 66 CCP-38SX5C-TD 106 CCP-38SX60-TDM 24 CCP-38SX30-TM 68 CCP-38SX5C-TM 107 C | 8 | CCP-38SX3C-TD | 50 | CCP-38SX40-TD | 92 | CCP-38SX6C-TD |
| 11 CCP-38SX3C-TDS 53 CCP-38SX40-TDS 95 CCP-38SX6C-TDS 12 CCP-38SX3C-TM 54 CCP-38SX40-TM 96 CCP-38SX6C-TM 13 CCP-38SX3C-TMS 55 CCP-38SX40-TMS 97 CCP-38SX6C-TMS 14 CCP-38SX3C-TS 56 CCP-38SX40-TS 98 CCP-38SX6C-TS 15 CCP-38SX30 57 CCP-38SX5C-D 100 CCP-38SX60-D 16 CCP-38SX30-D 58 CCP-38SX5C-D 100 CCP-38SX60-D 17 CCP-38SX30-DM 59 CCP-38SX5C-M 102 CCP-38SX60-DM 18 CCP-38SX30-M 60 CCP-38SX5C-M 102 CCP-38SX60-M 20 CCP-38SX30-T 63 CCP-38SX5C-T 105 CCP-38SX60-TD 21 CCP-38SX30-TD 64 CCP-38SX5C-TDM 107 CCP-38SX60-TDM 22 CCP-38SX30-TDM 65 CCP-38SX5C-TDM 106 CCP-38SX60-TDM 23 CCP-38SX30-TDM 66 CCP-38SX5C-TDM 107 CC | 9 | CCP-38SX3C-TDM | 51 | CCP-38SX40-TDM | 93 | CCP-38SX6C-TDM |
| 12 CCP-385X3C-TM 54 CCP-385X40-TM 96 CCP-385X6C-TM 13 CCP-385X3C-TMS 55 CCP-385X40-TMS 97 CCP-385X6C-TMS 14 CCP-385X3C-TS 56 CCP-385X40-TS 98 CCP-385X6C-TS 15 CCP-385X30 57 CCP-385X5C-D 100 CCP-385X60-D 17 CCP-385X30-D 58 CCP-385X5C-D 101 CCP-385X60-D 18 CCP-385X30-M 60 CCP-385X5C-M 102 CCP-385X60-M 19 CCP-385X30-T 63 CCP-385X5C-S 104 CCP-385X60-T 20 CCP-385X30-T 63 CCP-385X5C-T 105 CCP-385X60-T 21 CCP-385X30-TD 64 CCP-385X5C-TD 106 CCP-385X60-TD 23 CCP-385X30-TDM 65 CCP-385X5C-TDM 107 CCP-385X60-TDM 24 CCP-385X0-TDM 66 CCP-385X5C-TDM 108 CCP-385X60-TDM 25 CCP-385X0-TM 68 CCP-385X5C-TM 110 CCP-385X60 | 10 | CCP-38SX3C-TDMS | 52 | CCP-38SX40-TDMS | 94 | CCP-38SX6C-TDMS |
| 13 CCP-385X3C-TMS 55 CCP-385X40-TMS 97 CCP-385X6C-TMS 14 CCP-385X3C-TS 56 CCP-385X40-TS 98 CCP-385X6C-TS 15 CCP-385X30 57 CCP-385X5C-D 99 CCP-385X60-D 16 CCP-385X30-D 58 CCP-385X5C-D 100 CCP-385X60-D 17 CCP-385X30-DM 59 CCP-385X5C-DM 101 CCP-385X60-DM 18 CCP-385X30-M 60 CCP-385X5C-M 102 CCP-385X60-MS 20 CCP-385X30-T 63 CCP-385X5C-T 105 CCP-385X60-TD 21 CCP-385X30-TD 64 CCP-385X5C-TD 106 CCP-385X60-TD 23 CCP-385X30-TDM 65 CCP-385X5C-TDM 107 CCP-385X60-TDMS 24 CCP-385X30-TDM 66 CCP-385X5C-TDM 108 CCP-385X60-TDMS 25 CCP-385X30-TM 68 CCP-385X5C-TMS 111 CCP-385X60-TMS 28 CCP-385X4C-D 72 CCP-385X50-TM 110 | 11 | CCP-38SX3C-TDS | 53 | CCP-38SX40-TDS | 95 | CCP-38SX6C-TDS |
| 14 CCP-38SX3C-TS 56 CCP-38SX40-TS 98 CCP-38SX6C-TS 15 CCP-38SX30 57 CCP-38SX5C 99 CCP-38SX60 16 CCP-38SX30-D 58 CCP-38SX5C-D 100 CCP-38SX60-D 17 CCP-38SX30-DM 59 CCP-38SX5C-DM 101 CCP-38SX60-DM 18 CCP-38SX30-M 60 CCP-38SX5C-M 102 CCP-38SX60-MS 20 CCP-38SX30-S 62 CCP-38SX5C-S 104 CCP-38SX60-T 21 CCP-38SX30-TD 64 CCP-38SX5C-TD 106 CCP-38SX60-TD 22 CCP-38SX30-TDM 65 CCP-38SX5C-TDM 107 CCP-38SX60-TD 23 CCP-38SX30-TDM 65 CCP-38SX5C-TDM 108 CCP-38SX60-TDMS 24 CCP-38SX30-TDS 67 CCP-38SX5C-TM 109 CCP-38SX60-TMS 25 CCP-38SX30-TM 68 CCP-38SX5C-TM 110 CCP-38SX60-TMS 26 CCP-38SX30-TM 68 CCP-38SX5C-TM 110 CCP-38S | 12 | CCP-38SX3C-TM | 54 | CCP-38SX40-TM | 96 | CCP-38SX6C-TM |
| 15 CCP-38SX30 57 CCP-38SX5C 99 CCP-38SX60 16 CCP-38SX30-D 58 CCP-38SX5C-D 100 CCP-38SX60-D 17 CCP-38SX30-DM 59 CCP-38SX5C-DM 101 CCP-38SX60-DM 18 CCP-38SX30-M 60 CCP-38SX5C-M 102 CCP-38SX60-M 19 CCP-38SX30-M 61 CCP-38SX5C-S 104 CCP-38SX60-MS 20 CCP-38SX30-T 63 CCP-38SX5C-T 105 CCP-38SX60-T 21 CCP-38SX30-TD 64 CCP-38SX5C-TD 106 CCP-38SX60-TD 23 CCP-38SX30-TDM 65 CCP-38SX5C-TDM 107 CCP-38SX60-TDMS 24 CCP-38SX30-TDM 66 CCP-38SX5C-TDM 108 CCP-38SX60-TDMS 25 CCP-38SX30-TDM 67 CCP-38SX5C-TM 100 CCP-38SX60-TDMS 26 CCP-38SX30-TDM 68 CCP-38SX5C-TM 110 CCP-38SX60-TMS 27 CCP-38SX30-TM 68 CCP-38SX5C-TM 110 CCP-3 | 13 | CCP-38SX3C-TMS | 55 | CCP-38SX40-TMS | 97 | CCP-38SX6C-TMS |
| 16 CCP-38SX30-D 58 CCP-38SX5C-D 100 CCP-38SX60-D 17 CCP-38SX30-DM 59 CCP-38SX5C-DM 101 CCP-38SX60-DM 18 CCP-38SX30-M 60 CCP-38SX5C-M 102 CCP-38SX60-M 19 CCP-38SX30-MS 61 CCP-38SX5C-MS 103 CCP-38SX60-M 20 CCP-38SX30-T 63 CCP-38SX5C-T 105 CCP-38SX60-T 21 CCP-38SX30-TD 64 CCP-38SX5C-TD 106 CCP-38SX60-TD 23 CCP-38SX30-TDM 65 CCP-38SX5C-TDM 107 CCP-38SX60-TDM 24 CCP-38SX30-TDM 66 CCP-38SX5C-TDMS 108 CCP-38SX60-TDM 25 CCP-38SX30-TDM 67 CCP-38SX5C-TMS 110 CCP-38SX60-TMS 26 CCP-38SX30-TM 68 CCP-38SX5C-TMS 110 CCP-38SX60-TMS 27 CCP-38SX30-TMS 69 CCP-38SX5C-TS 112 CCP-38SX60-TMS 28 CCP-38SX4C-D 72 CCP-38SX4C-TM 74 | 14 | CCP-38SX3C-TS | 56 | CCP-38SX40-TS | 98 | CCP-38SX6C-TS |
| 17 CCP-38SX30-DM 59 CCP-38SX5C-DM 101 CCP-38SX60-DM 18 CCP-38SX30-MS 60 CCP-38SX5C-MS 102 CCP-38SX60-MS 19 CCP-38SX30-MS 61 CCP-38SX5C-MS 103 CCP-38SX60-MS 20 CCP-38SX30-T 63 CCP-38SX5C-S 104 CCP-38SX60-T 21 CCP-38SX30-T 63 CCP-38SX5C-T 105 CCP-38SX60-TD 22 CCP-38SX30-TD 64 CCP-38SX5C-TD 106 CCP-38SX60-TD 23 CCP-38SX30-TDM 65 CCP-38SX5C-TDM 107 CCP-38SX60-TDMS 24 CCP-38SX30-TDM 66 CCP-38SX5C-TDS 109 CCP-38SX60-TDMS 25 CCP-38SX30-TDM 67 CCP-38SX5C-TM 110 CCP-38SX60-TMS 25 CCP-38SX30-TM 68 CCP-38SX5C-TM 110 CCP-38SX60-TMS 26 CCP-38SX30-TM 68 CCP-38SX5C-TS 111 CCP-38SX60-TMS 28 CCP-38SX4C 71 CCP-38SX50-TS 112 CCP-38SX60-TS 30 CCP-38SX4C-M 74 CCP-38SX50-TM </th <th>15</th> <th>CCP-38SX30</th> <th>57</th> <th>CCP-38SX5C</th> <th>99</th> <th>CCP-38SX60</th> | 15 | CCP-38SX30 | 57 | CCP-38SX5C | 99 | CCP-38SX60 |
| 18 CCP-38SX30-M 60 CCP-38SX5C-M 102 CCP-38SX60-M 19 CCP-38SX30-MS 61 CCP-38SX5C-MS 103 CCP-38SX60-MS 20 CCP-38SX30-S 62 CCP-38SX5C-S 104 CCP-38SX60-T 21 CCP-38SX30-T 63 CCP-38SX5C-T 105 CCP-38SX60-T 22 CCP-38SX30-TD 64 CCP-38SX5C-TD 106 CCP-38SX60-TD 23 CCP-38SX30-TDM 65 CCP-38SX5C-TDM 107 CCP-38SX60-TDM 24 CCP-38SX30-TDM 66 CCP-38SX5C-TDMS 108 CCP-38SX60-TDMS 25 CCP-38SX30-TDS 67 CCP-38SX5C-TM 110 CCP-38SX60-TMS 26 CCP-38SX30-TM 68 CCP-38SX5C-TM 110 CCP-38SX60-TMS 28 CCP-38SX30-TS 70 CCP-38SX5C-TS 112 CCP-38SX60-TS 30 CCP-38SX4C-D 72 CCP-38SX50-D 111 CCP-38SX60-TS 34 CCP-38SX4C-M 74 CCP-38SX50-T 16 | 16 | CCP-38SX30-D | 58 | CCP-38SX5C-D | 100 | CCP-38SX60-D |
| 19 CCP-38SX30-MS 61 CCP-38SX5C-MS 103 CCP-38SX60-MS 20 CCP-38SX30-S 62 CCP-38SX5C-S 104 CCP-38SX60-S 21 CCP-38SX30-T 63 CCP-38SX5C-T 105 CCP-38SX60-T 22 CCP-38SX30-TD 64 CCP-38SX5C-TD 106 CCP-38SX60-TD 23 CCP-38SX30-TDM 65 CCP-38SX5C-TDM 107 CCP-38SX60-TDM 24 CCP-38SX30-TDM 66 CCP-38SX5C-TDM 108 CCP-38SX60-TDMS 25 CCP-38SX30-TDM 67 CCP-38SX5C-TD 109 CCP-38SX60-TDMS 26 CCP-38SX30-TM 68 CCP-38SX5C-TM 110 CCP-38SX60-TMS 27 CCP-38SX30-TMS 69 CCP-38SX5C-TS 112 CCP-38SX60-TMS 28 CCP-38SX4C-D 72 CCP-38SX50-D 111 CCP-38SX60-TS 30 CCP-38SX4C-M 74 CCP-38SX50-D 112 CCP-38SX60-TS 34 CCP-38SX4C-TD 78 CCP-38SX50-TD 114 | 17 | CCP-38SX30-DM | 59 | CCP-38SX5C-DM | 101 | CCP-38SX60-DM |
| 20 CCP-38SX30-S 62 CCP-38SX5C-S 104 CCP-38SX60-S 21 CCP-38SX30-T 63 CCP-38SX5C-T 105 CCP-38SX60-T 22 CCP-38SX30-TD 64 CCP-38SX5C-TD 106 CCP-38SX60-TD 23 CCP-38SX30-TDM 65 CCP-38SX5C-TDM 107 CCP-38SX60-TDM 24 CCP-38SX30-TDM 66 CCP-38SX5C-TDMS 108 CCP-38SX60-TDMS 25 CCP-38SX30-TDS 67 CCP-38SX5C-TDM 109 CCP-38SX60-TDMS 26 CCP-38SX30-TDS 67 CCP-38SX5C-TDS 109 CCP-38SX60-TDMS 26 CCP-38SX30-TDS 67 CCP-38SX5C-TDM 110 CCP-38SX60-TDMS 26 CCP-38SX30-TM 68 CCP-38SX5C-TM 110 CCP-38SX60-TMS 27 CCP-38SX30-TMS 69 CCP-38SX5C-TM 111 CCP-38SX60-TMS 28 CCP-38SX4C-D 72 CCP-38SX50-TM 111 CCP-38SX60-TS 29 CCP-38SX4C-D 72 CCP-38SX50-DM 33 CCP-38SX4C-M 74 CCP-38SX50-MS 34 CCP-38SX4C-TM 77 CCP-38SX50-TD 37 | 18 | CCP-38SX30-M | 60 | CCP-38SX5C-M | 102 | CCP-38SX60-M |
| 21 CCP-38SX30-T 63 CCP-38SX5C-T 105 CCP-38SX60-T 22 CCP-38SX30-TD 64 CCP-38SX5C-TD 106 CCP-38SX60-TD 23 CCP-38SX30-TDM 65 CCP-38SX5C-TDM 107 CCP-38SX60-TDM 24 CCP-38SX30-TDMS 66 CCP-38SX5C-TDMS 108 CCP-38SX60-TDMS 25 CCP-38SX30-TDS 67 CCP-38SX5C-TDS 109 CCP-38SX60-TDS 26 CCP-38SX30-TM 68 CCP-38SX5C-TM 110 CCP-38SX60-TMS 27 CCP-38SX30-TM 69 CCP-38SX5C-TS 111 CCP-38SX60-TMS 28 CCP-38SX4C-D 70 CCP-38SX50-TS 112 CCP-38SX60-TS 29 CCP-38SX4C-D 72 CCP-38SX50-D 112 CCP-38SX60-TS 31 CCP-38SX4C-M 74 CCP-38SX50-M 133 CCP-38SX4C-M 74 CCP-38SX50-TD 34 CCP-38SX4C-TD 78 CCP-38SX50-TD 136 CCP-38SX4C-TD 78 CCP-38SX50-TD 36 | 19 | CCP-38SX30-MS | 61 | CCP-38SX5C-MS | 103 | CCP-38SX60-MS |
| 22 CCP-38SX30-TD 64 CCP-38SX5C-TD 106 CCP-38SX60-TD 23 CCP-38SX30-TDM 65 CCP-38SX5C-TDM 107 CCP-38SX60-TDM 24 CCP-38SX30-TDMS 66 CCP-38SX5C-TDMS 108 CCP-38SX60-TDMS 25 CCP-38SX30-TDS 67 CCP-38SX5C-TDS 109 CCP-38SX60-TDS 26 CCP-38SX30-TM 68 CCP-38SX5C-TMS 110 CCP-38SX60-TMS 27 CCP-38SX30-TMS 69 CCP-38SX5C-TS 111 CCP-38SX60-TMS 28 CCP-38SX4C 71 CCP-38SX5C-TS 111 CCP-38SX60-TS 29 CCP-38SX4C-D 72 CCP-38SX50-D 111 CCP-38SX60-TS 30 CCP-38SX4C-DM 73 CCP-38SX50-D 112 CCP-38SX60-TS 31 CCP-38SX4C-M 74 CCP-38SX50-M 133 CCP-38SX4C-MS 75 CCP-38SX50-T 36 CCP-38SX4C-TD 78 CCP-38SX50-TD 137 CCP-38SX4C-TD 78 CCP-38SX50-TDM 138 CCP-38SX | 20 | CCP-38SX30-S | 62 | CCP-38SX5C-S | 104 | CCP-38SX60-S |
| 23 CCP-38SX30-TDM 65 CCP-38SX5C-TDM 107 CCP-38SX60-TDM 24 CCP-38SX30-TDMS 66 CCP-38SX5C-TDMS 108 CCP-38SX60-TDMS 25 CCP-38SX30-TDS 67 CCP-38SX5C-TDS 109 CCP-38SX60-TDMS 26 CCP-38SX30-TM 68 CCP-38SX5C-TM 110 CCP-38SX60-TMS 27 CCP-38SX30-TMS 69 CCP-38SX5C-TMS 111 CCP-38SX60-TMS 28 CCP-38SX30-TS 70 CCP-38SX5C-TS 112 CCP-38SX60-TMS 29 CCP-38SX4C 71 CCP-38SX50-D 31 CCP-38SX4C-D 72 CCP-38SX50-D 31 CCP-38SX4C-M 74 CCP-38SX50-D 33 CCP-38SX4C-MS 75 CCP-38SX50-S 34 CCP-38SX4C-TD 78 CCP-38SX50-TD 36 CCP-38SX4C-TD 78 CCP-38SX50-TD 36 CCP-38SX4C-TDM 79 CCP-38SX50-TDM 38 CCP-38SX4C-TD 39 CCP-38SX4C-TDS 81 CCP-38SX50-TDM 39 CCP-38SX4C-TMS | 21 | CCP-38SX30-T | 63 | CCP-38SX5C-T | 105 | CCP-38SX60-T |
| 24 CCP-38SX30-TDMS 66 CCP-38SX5C-TDMS 108 CCP-38SX60-TDMS 25 CCP-38SX30-TDS 67 CCP-38SX5C-TDS 109 CCP-38SX60-TDS 26 CCP-38SX30-TM 68 CCP-38SX5C-TM 110 CCP-38SX60-TMS 26 CCP-38SX30-TM 68 CCP-38SX5C-TM 110 CCP-38SX60-TMS 27 CCP-38SX30-TMS 69 CCP-38SX5C-TMS 111 CCP-38SX60-TMS 28 CCP-38SX30-TS 70 CCP-38SX5C-TS 111 CCP-38SX60-TMS 28 CCP-38SX30-TS 70 CCP-38SX5C-TS 112 CCP-38SX60-TMS 29 CCP-38SX4C 71 CCP-38SX50-D 30 CCP-38SX4C-D 72 CCP-38SX50-D 31 CCP-38SX4C-M 74 CCP-38SX50-DM 33 CCP-38SX4C-M 74 CCP-38SX50-MS 34 CCP-38SX4C-T 77 CCP-38SX50-TD 33 CCP-38SX4C-TD 78 CCP-38SX50-TD 37 CCP-38SX4C-TD 79 CCP-38SX50-TDM 38 CCP-38SX4C-TDM 79 CCP-38SX50-TDMS 39 CCP-38SX4C-TDM 80 CCP-38SX50-TDM 40 | 22 | CCP-38SX30-TD | 64 | CCP-38SX5C-TD | 106 | CCP-38SX60-TD |
| 25 CCP-38SX30-TDS 67 CCP-38SX5C-TDS 109 CCP-38SX60-TDS 26 CCP-38SX30-TM 68 CCP-38SX5C-TM 110 CCP-38SX60-TM 27 CCP-38SX30-TMS 69 CCP-38SX5C-TMS 111 CCP-38SX60-TMS 28 CCP-38SX30-TS 70 CCP-38SX5C-TS 111 CCP-38SX60-TMS 28 CCP-38SX30-TS 70 CCP-38SX5C-TS 112 CCP-38SX60-TS 29 CCP-38SX4C 71 CCP-38SX50-D 30 CCP-38SX4C-D 72 CCP-38SX50-D 31 CCP-38SX4C-D 72 CCP-38SX50-D 31 CCP-38SX4C-M 74 CCP-38SX50-DM 33 CCP-38SX4C-M 74 CCP-38SX50-MS 34 CCP-38SX4C-S 76 CCP-38SX50-S 35 CCP-38SX4C-TD 78 CCP-38SX50-TD 37 CCP-38SX4C-TD 78 CCP-38SX50-TDM 38 CCP-38SX4C-TDMS 80 CCP-38SX50-TDMS 39 CCP-38SX4C-TDM 80 CCP-38SX50-TDMS 39 CCP-38SX4C-TMS 81 CCP-38SX50-TDMS 41 CCP-38SX4C-TMS 83 CCP-38SX50-TMS 41 C | 23 | CCP-38SX30-TDM | 65 | CCP-38SX5C-TDM | 107 | CCP-38SX60-TDM |
| 26 CCP-38SX30-TM 68 CCP-38SX5C-TM 110 CCP-38SX60-TM 27 CCP-38SX30-TMS 69 CCP-38SX5C-TMS 111 CCP-38SX60-TMS 28 CCP-38SX30-TS 70 CCP-38SX5C-TS 112 CCP-38SX60-TS 29 CCP-38SX4C 71 CCP-38SX50-D 30 CCP-38SX4C-D 72 CCP-38SX50-D 31 CCP-38SX4C-DM 73 CCP-38SX50-DM 33 CCP-38SX4C-M 74 CCP-38SX50-M 33 CCP-38SX4C-MS 75 CCP-38SX50-S 35 35 CCP-38SX4C-T 77 CCP-38SX50-T 36 CCP-38SX4C-TD 78 CCP-38SX50-TD 37 38 CCP-38SX4C-TDM 79 CCP-38SX50-TDM 38 CCP-38SX4C-TDMS 39 CCP-38SX4C-TDS 81 CCP-38SX50-TDMS 39 CCP-38SX4C-TM 82 CCP-38SX50-TMS 41 CCP-38SX4C-TMS 83 CCP-38SX50-TMS 41 CCP-38SX4C-TMS 83 CCP-38SX50-TMS 37 | 24 | CCP-38SX30-TDMS | 66 | CCP-38SX5C-TDMS | 108 | CCP-38SX60-TDMS |
| 27 CCP-38SX30-TMS 69 CCP-38SX5C-TMS 111 CCP-38SX60-TMS 28 CCP-38SX30-TS 70 CCP-38SX5C-TS 112 CCP-38SX60-TS 29 CCP-38SX4C 71 CCP-38SX50-D 111 CCP-38SX60-TS 30 CCP-38SX4C-D 72 CCP-38SX50-D 111 CCP-38SX60-TS 31 CCP-38SX4C-DM 73 CCP-38SX50-DM 111 CCP-38SX4C-MS 32 CCP-38SX4C-M 74 CCP-38SX50-DM 111 CCP-38SX4C-MS 33 CCP-38SX4C-MS 75 CCP-38SX50-MS 111 CCP-38SX4C-S 34 CCP-38SX4C-T 77 CCP-38SX50-TD 111 CCP-38SX4C-TD 36 CCP-38SX4C-TD 78 CCP-38SX50-TDM 1111 1111 1111 | 25 | CCP-38SX30-TDS | 67 | CCP-38SX5C-TDS | 109 | CCP-38SX60-TDS |
| 28 CCP-38SX30-TS 70 CCP-38SX5C-TS 112 CCP-38SX60-TS 29 CCP-38SX4C 71 CCP-38SX50 30 CCP-38SX4C-D 72 CCP-38SX50-D 30 CCP-38SX4C-DM 73 CCP-38SX50-D 31 CCP-38SX4C-M 74 CCP-38SX50-DM 32 CCP-38SX4C-M 74 CCP-38SX50-M 33 CCP-38SX4C-S 76 CCP-38SX50-MS 34 CCP-38SX4C-T 77 CCP-38SX50-T 36 CCP-38SX4C-TD 78 CCP-38SX50-TD 37 CCP-38SX4C-TDM 79 CCP-38SX50-TDM 38 CCP-38SX4C-TDS 80 CCP-38SX50-TDMS 39 CCP-38SX4C-TDS 81 CCP-38SX50-TDS 40 CCP-38SX4C-TM 82 CCP-38SX50-TMS 41 CCP-38SX4C-TMS 83 CCP-38SX50-TMS 41 CCP-38SX4C-TMS 83 CCP-38SX50-TMS | 26 | CCP-38SX30-TM | 68 | CCP-38SX5C-TM | 110 | CCP-38SX60-TM |
| 29 CCP-38SX4C 71 CCP-38SX50 30 CCP-38SX4C-D 72 CCP-38SX50-D 31 CCP-38SX4C-M 73 CCP-38SX50-DM 32 CCP-38SX4C-M 74 CCP-38SX50-M 33 CCP-38SX4C-MS 75 CCP-38SX50-MS 34 CCP-38SX4C-S 76 CCP-38SX50-T 36 CCP-38SX4C-TD 78 CCP-38SX50-TD 37 CCP-38SX4C-TD 78 CCP-38SX50-TDM 38 CCP-38SX4C-TDM 79 CCP-38SX50-TDMS 39 CCP-38SX4C-TDS 81 CCP-38SX50-TDS 40 CCP-38SX4C-TM 82 CCP-38SX50-TMS 41 CCP-38SX4C-TMS 83 CCP-38SX50-TMS | 27 | CCP-38SX30-TMS | 69 | CCP-38SX5C-TMS | 111 | CCP-38SX60-TMS |
| 30 CCP-38SX4C-D 72 CCP-38SX50-D 31 CCP-38SX4C-DM 73 CCP-38SX50-DM 32 CCP-38SX4C-M 74 CCP-38SX50-M 33 CCP-38SX4C-MS 75 CCP-38SX50-MS 34 CCP-38SX4C-S 76 CCP-38SX50-S 35 CCP-38SX4C-T 77 CCP-38SX50-T 36 CCP-38SX4C-TD 78 CCP-38SX50-TD 37 CCP-38SX4C-TDM 79 CCP-38SX50-TDM 38 CCP-38SX4C-TDMS 80 CCP-38SX50-TDMS 39 CCP-38SX4C-TDS 81 CCP-38SX50-TDS 40 CCP-38SX4C-TM 82 CCP-38SX50-TMS 41 CCP-38SX4C-TMS 83 CCP-38SX50-TMS | 28 | CCP-38SX30-TS | 70 | CCP-38SX5C-TS | 112 | CCP-38SX60-TS |
| 31 CCP-38SX4C-DM 73 CCP-38SX50-DM 32 CCP-38SX4C-M 74 CCP-38SX50-M 33 CCP-38SX4C-MS 75 CCP-38SX50-MS 34 CCP-38SX4C-S 76 CCP-38SX50-S 35 CCP-38SX4C-T 77 CCP-38SX50-T 36 CCP-38SX4C-TD 78 CCP-38SX50-TD 37 CCP-38SX4C-TDM 79 CCP-38SX50-TDM 38 CCP-38SX4C-TDMS 80 CCP-38SX50-TDMS 39 CCP-38SX4C-TDS 81 CCP-38SX50-TDS 40 CCP-38SX4C-TM 82 CCP-38SX50-TMS 41 CCP-38SX4C-TMS 83 CCP-38SX50-TMS | 29 | CCP-38SX4C | 71 | CCP-38SX50 | | |
| 32 CCP-38SX4C-M 74 CCP-38SX50-M 33 CCP-38SX4C-MS 75 CCP-38SX50-MS 34 CCP-38SX4C-S 76 CCP-38SX50-S 35 CCP-38SX4C-T 77 CCP-38SX50-T 36 CCP-38SX4C-TD 78 CCP-38SX50-TD 37 CCP-38SX4C-TDM 79 CCP-38SX50-TDM 38 CCP-38SX4C-TDMS 80 CCP-38SX50-TDMS 39 CCP-38SX4C-TDS 81 CCP-38SX50-TDS 40 CCP-38SX4C-TM 82 CCP-38SX50-TMS 41 CCP-38SX4C-TMS 83 CCP-38SX50-TMS | 30 | CCP-38SX4C-D | 72 | CCP-38SX50-D | | |
| 33 CCP-38SX4C-MS 75 CCP-38SX50-MS 34 CCP-38SX4C-S 76 CCP-38SX50-S 35 CCP-38SX4C-T 77 CCP-38SX50-T 36 CCP-38SX4C-TD 78 CCP-38SX50-TD 37 CCP-38SX4C-TDM 79 CCP-38SX50-TDM 38 CCP-38SX4C-TDMS 80 CCP-38SX50-TDMS 39 CCP-38SX4C-TDS 81 CCP-38SX50-TDS 40 CCP-38SX4C-TM 82 CCP-38SX50-TMS 41 CCP-38SX4C-TMS 83 CCP-38SX50-TMS | 31 | CCP-38SX4C-DM | 73 | CCP-38SX50-DM | | |
| 34 CCP-38SX4C-S 76 CCP-38SX50-S 35 CCP-38SX4C-T 77 CCP-38SX50-T 36 CCP-38SX4C-TD 78 CCP-38SX50-TD 37 CCP-38SX4C-TDM 79 CCP-38SX50-TDM 38 CCP-38SX4C-TDMS 80 CCP-38SX50-TDMS 39 CCP-38SX4C-TDS 81 CCP-38SX50-TDS 40 CCP-38SX4C-TM 82 CCP-38SX50-TMS 41 CCP-38SX4C-TMS 83 CCP-38SX50-TMS | 32 | CCP-38SX4C-M | 74 | CCP-38SX50-M | | |
| 35 CCP-38SX4C-T 77 CCP-38SX50-T 36 CCP-38SX4C-TD 78 CCP-38SX50-TD 37 CCP-38SX4C-TDM 79 CCP-38SX50-TDM 38 CCP-38SX4C-TDMS 80 CCP-38SX50-TDMS 39 CCP-38SX4C-TDS 81 CCP-38SX50-TDS 40 CCP-38SX4C-TM 82 CCP-38SX50-TMS 41 CCP-38SX4C-TMS 83 CCP-38SX50-TMS | 33 | CCP-38SX4C-MS | 75 | CCP-38SX50-MS | | |
| 36 CCP-38SX4C-TD 78 CCP-38SX50-TD 37 CCP-38SX4C-TDM 79 CCP-38SX50-TDM 38 CCP-38SX4C-TDMS 80 CCP-38SX50-TDMS 39 CCP-38SX4C-TDS 81 CCP-38SX50-TDS 40 CCP-38SX4C-TM 82 CCP-38SX50-TM 41 CCP-38SX4C-TMS 83 CCP-38SX50-TMS | 34 | CCP-38SX4C-S | 76 | CCP-38SX50-S | | |
| 37 CCP-38SX4C-TDM 79 CCP-38SX50-TDM 38 CCP-38SX4C-TDMS 80 CCP-38SX50-TDMS 39 CCP-38SX4C-TDS 81 CCP-38SX50-TDS 40 CCP-38SX4C-TM 82 CCP-38SX50-TM 41 CCP-38SX4C-TMS 83 CCP-38SX50-TMS | 35 | CCP-38SX4C-T | 77 | CCP-38SX50-T | | |
| 38 CCP-38SX4C-TDMS 80 CCP-38SX50-TDMS 39 CCP-38SX4C-TDS 81 CCP-38SX50-TDS 40 CCP-38SX4C-TM 82 CCP-38SX50-TM 41 CCP-38SX4C-TMS 83 CCP-38SX50-TMS | 36 | CCP-38SX4C-TD | 78 | CCP-38SX50-TD | | |
| 39 CCP-38SX4C-TDS 81 CCP-38SX50-TDS 40 CCP-38SX4C-TM 82 CCP-38SX50-TM 41 CCP-38SX4C-TMS 83 CCP-38SX50-TMS | 37 | CCP-38SX4C-TDM | 79 | CCP-38SX50-TDM | | |
| 40 CCP-38SX4C-TM 82 CCP-38SX50-TM 41 CCP-38SX4C-TMS 83 CCP-38SX50-TMS | 38 | CCP-38SX4C-TDMS | 80 | CCP-38SX50-TDMS | | |
| 41 CCP-38SX4C-TMS 83 CCP-38SX50-TMS | 39 | CCP-38SX4C-TDS | 81 | CCP-38SX50-TDS | | |
| | 40 | CCP-38SX4C-TM | 82 | CCP-38SX50-TM | | |
| 42 CCP-38SX4C-TS 84 CCP-38SX50-TS | 41 | CCP-38SX4C-TMS | 83 | CCP-38SX50-TMS | | |
| | 42 | CCP-38SX4C-TS | 84 | CCP-38SX50-TS | | |

* X = 1 (28Vdc), 2 (15Vdc), 3 (12Vdc) and 4 (24Vdc)