REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	PRODUCTION RELEASE	9/21/15	K.R.
B	REVISED PER ECO 11340	11/11/15	S.L.
C	REVISED PER ECO 11505	7/14/16	K.R.

Nominal Coil Voltage	Part Number
12 Vdc	R401K-420852A
24 Vdc	R401K-480852A

REVISIONS	C	C	C	C	C	
SHEET NO.	1	2	3	4	5	

APPROVALS	DATE
DRAWN SARA LEE	07/20/15
ENGINEERING J. WESSELY	7/14/2016
QUALITY S. LYNCH	9/18/2015
MANUFACTURING R. GARCIA	9/21/2015

DowKey ® Microwave CORPORATION
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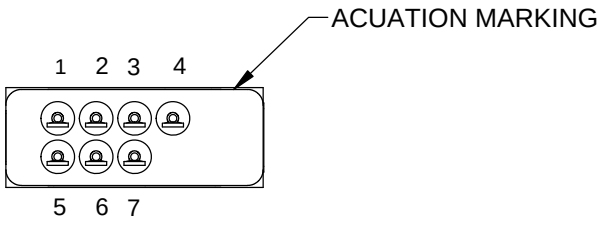
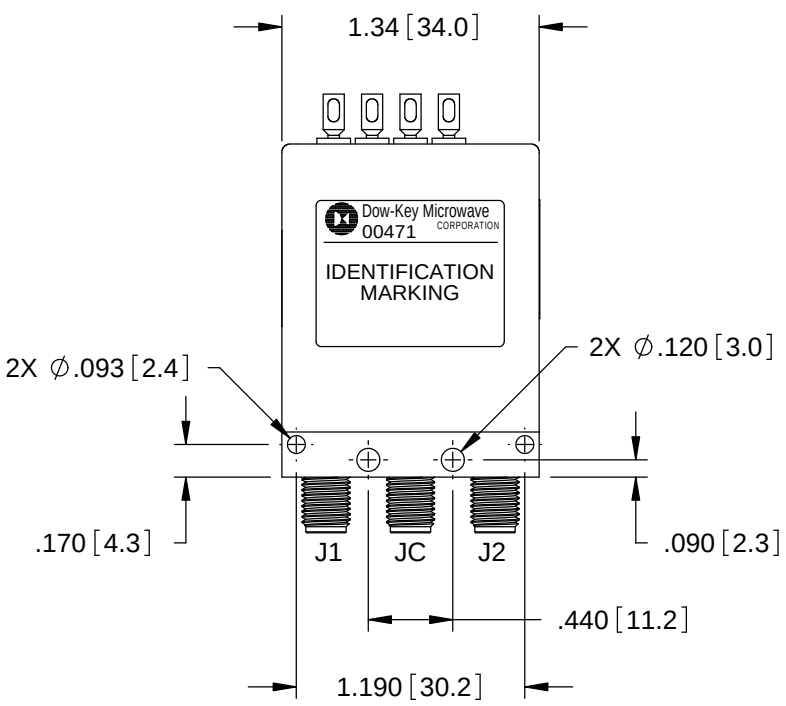
PH: (805) 650-0260
FAX: (805) 650-1734

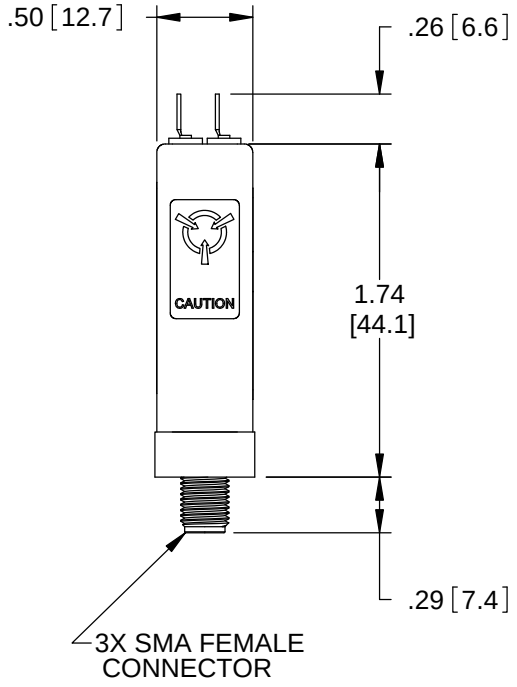
SWITCH, SPDT, LATCHING SELF CUT-OFF, TTL SMA-FEMALE CONNECTORS, 26.5 GHz OPTICAL INDICATORS, 10 MIL CYCLE

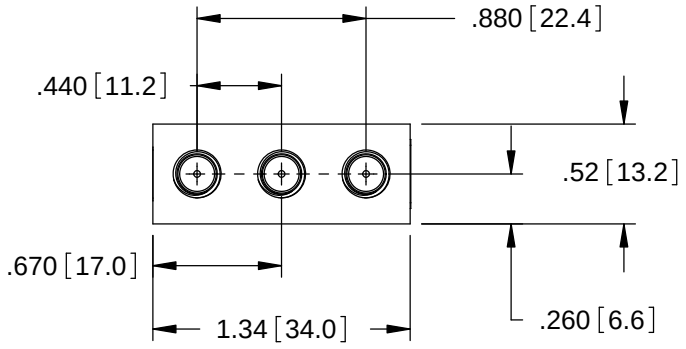
CODE IDENT. NO.	DWG. NO.	
00471	R401K-4X0852A	
SCALE NONE	FINAL ASSY: 11024-272-V	SHEET 1 OF 5

OUTLINE DRAWING:









[ ] MILLIMETERS

UNLESS OTHERWISE SPECIFIED TOLERANCES ARE: .XXX ±.010 ANGLES: ±3° .XX ±.030	CODE IDENT. NO. 00471	DWG. NO. R401K-4X0852A	REV. C
	SCALE NONE	FINAL ASSY: 11024-272-V	SHEET 2 OF 5

SPECIFICATION:

1.0 RF CHARACTERISTICS:

1.1 FREQUENCY (GHz)	DC - 4	4 - 12.4	12.4 - 20	20 - 26.5
1.2 VSWR (RATIO MAX)	1.15:1	1.25:1	1.35:1	1.50:1
1.3 INSERTION LOSS (dB MAX)	0.42	0.56	0.69	0.80
1.4 ISOLATION (dB MIN)	85	76	67	60
1.5 HOT SWITCHING (WATTS CW)	2	2	2	2
1.6 IMPEDANCE (NOMINAL)	50 OHMS			
1.7 REPEATABILITY (MAX)	0.03 dB @ 25˚C (DC - 26 GHz)			

2.0 ACTUATION DATA:

2.1

NOMINAL VOLTAGE	OPERATING VOLTAGE	CURRENT (TYP) @ NOMINAL VOLTAGE & 25˚C
12	11-14	60 mA
24	20-32	30 mA

2.2 SWITCHING TIME — 15mS MAX

2.3 OPERATING MODE — LATCHING SELF CUT-OFF

3.0 MECHANICAL:

3.1 CONTACT ARRANGEMENT	SPDT
3.2 RF CONTACTS	BREAK BEFORE MAKE
3.3 WEIGHT	1.45 oz (41 g) NOMINAL
3.4 DESIGN LIFE *	10,000,000 CYCLES MINIMUM

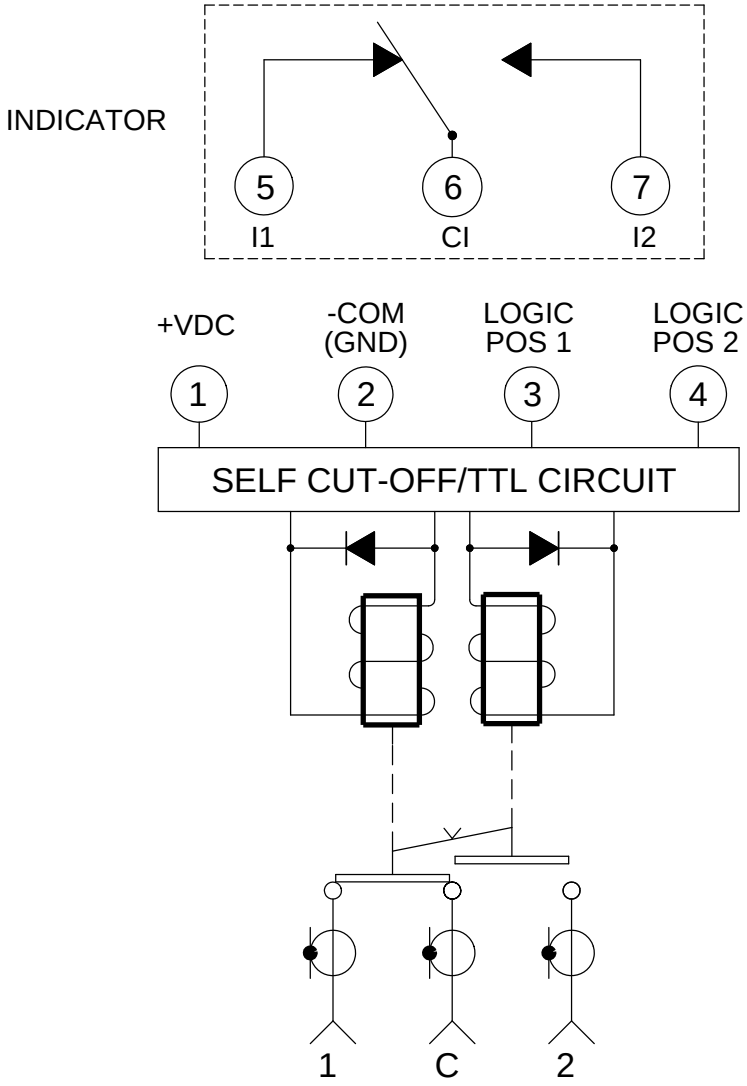
4.0 ENVIRONMENTAL:

4.1 OPERATING TEMPERATURE	-25˚C TO +75˚C
4.2 STORAGE TEMPERATURE	-55˚C TO +85˚C
4.3 VIBRATION	
4.3.1 SINUSOIDAL OPERATING	7 g, 5-2000 Hz at 0.25 in p-p
4.3.2 SINUSOIDAL SURVIVAL	20 g, 20-2000 Hz at 0.06 in. p-p
4.3.3 RANDOM (OPERATING)	2.41 g (rms), 10 min/AXIS
4.4 SHOCK	
4.4.1 SURVIVAL	HALF SINE: 500 g at 0.5 mS
4.4.2 OPERATING	50 g at 6mS
4.5 HUMIDITY (OPERATING)	15 TO 95% RELATIVE HUMIDITY (NON-CONDENSING)
4.6 ALTITUDE	
4.6.1 OPERATING	15,000 FEET
4.6.2 SURVIVAL	50,000 FEET

* DESIGN LIFE IS 10 MILLION CYCLES MINIMUM, WHEN DRIVEN AT VOLTAGES 20 ≤ Vsupply ≤ 28 VDC OR 11 ≤ Vsupply ≤ 14 VDC. DEPENDING ON SWITCH OPERATING VOLTAGE.

DESIGN LIFE IS 2 MILLION CYCLES MINIMUM WHEN DRIVEN AT VOLTAGES 28 < Vsupply ≤ 32 VDC.

SCHEMATIC:



SWITCH SHOWN WITH POSITION 1 SELECTED

TTL DRIVE:

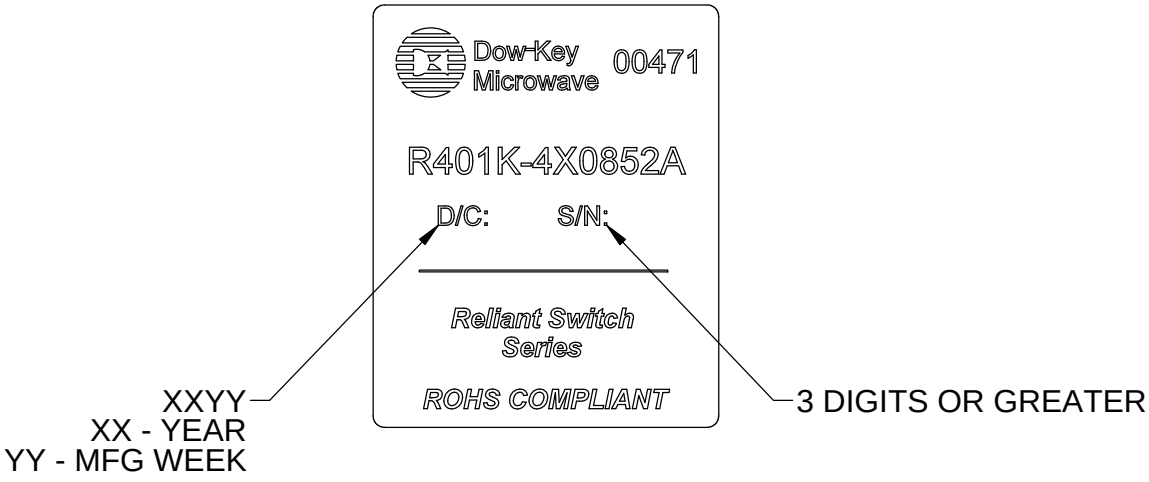
- CONNECT GROUND TO -COM, PIN 2
- CONNECT SUPPLY VOLTAGE (+VDC) TO PIN 1
- SELECT (CLOSE) THE DESIRED RF PATH BY APPLYING LOGIC HI SIGNAL TO THE DESIRED POSITION AND LOGIC LO SIGNAL TO THE ALTERNATE POSITION

LOGIC TRUTH TABLE			
RF PATH	INDICATOR PATH	LOGIC POS.1	LOGIC POS.2
1 - C	CI - I1	1	0
2 - C	CI - I2	0	1

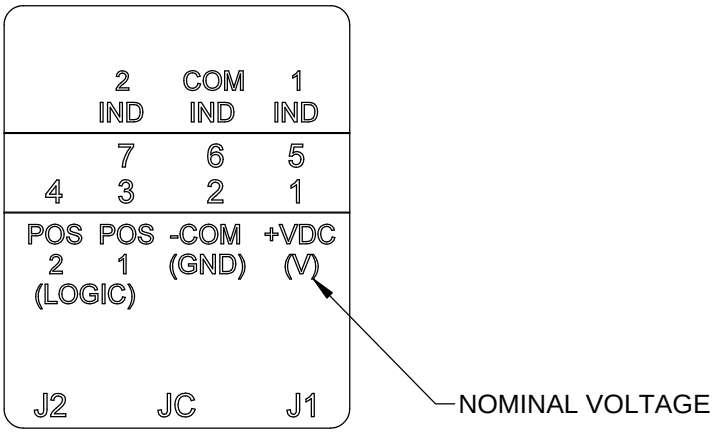
LOGIC "1" = 2.4 - 5.5 Vdc
LOGIC "0" = 0.0 - 0.8 Vdc

CODE IDENT. NO.	DWG. NO.	REV.
00471	R401K-4X0852A	C
SCALE NONE	FINAL ASSY: 11024-272-V	SHEET 4 OF 5

IDENTIFICATION MARKING:



ACTUATION MARKING:



NOTE: ALL WORDS, LETTERS, NUMBERS AND SYMBOLS SHALL BE LOCATED APPROXIMATELY AS SHOWN

CODE IDENT. NO.	DWG. NO.	REV.
00471	R401K-4X0852A	C
SCALE NONE	FINAL ASSY: 11024-272-V	SHEET 5 OF 5