SPDT

401 Failsafe | SMA, 2.9 mm (K), Pin Mount

- DC-18 GHz
- DC-26.5 GHz
- DC-40 GHz
- Low/Medium Power
- 1M/5M Life Cycles

RF Characteristics

Frequency GHz	VSWR (max)	Isolation dB (min)	Ins. Loss dB (max)
DC-1	1.10	85	0.10
1-4	1.15	80	0.15
4-8	1.20	70	0.20
8-12	1.30	65	0.30
12-18	1.35	60	0.35
*18-26.5	1.50	55	0.50
*26.5-40	1.90	55	0.80

*Performance varies depending on selected options

Specifications

Operating Voltage (across temperature range):
12 Vdc (11-14 Vdc)
24 Vdc (20-28 Vdc)
28 Vdc (24-32 Vdc)

Coil Current (max. @ nom. Vdc & 25°C)*:
12 Vdc 195 mA
24 Vdc 125 mA
28 Vdc 95 mA

Switching Time:
15 ms maximum

Operating Temperature:
-25°C to +65°C (Standard)
-55°C to +85°C (Extended "T" Option)

Mechanical Life Cycles*:
1,000,000 minimum
5,000,000 minimum ("U" Option)

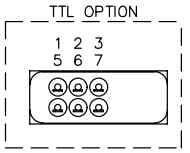
Vibration, Operating:
10G RMS, 20-2000 Hz

Mechanical Shock, Non-Operating:
50G, 1/2 Sine, 11 ms

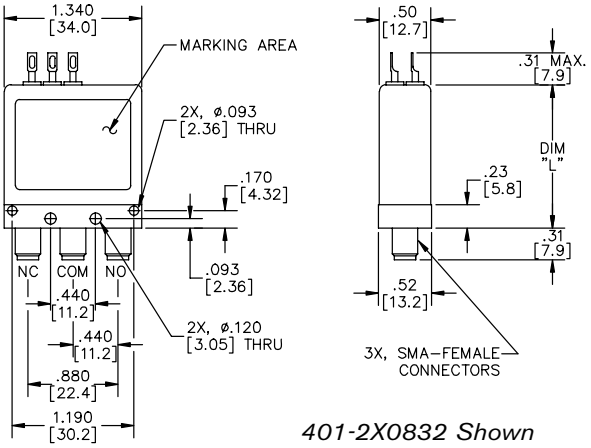
Nominal Weight*:
1.4 oz. (40 g.)

* Performance and weight varies depending on selected options. Values listed are for Standard 401 Failsafe model.

Mechanical



DIM "L" (MAX)	MODEL	ELEC. SCHEM.
1.40[35.6]	401-2X08	1
1.40[35.6]	401-2X0832	1
1.80[45.7]	401-2X0802A	2
1.80[45.7]	401-2X0832A	2



401-2X0832 Shown
For Electrical Schematic, see page # 1-5

Part Number Selector

401 J - 2 2 08 02 A - ROHS

Special Options
A = High Power
I = Immersion Seal
J = 'D' Connector
K = 26.5 GHz
S = Epoxy Seal
T = -55°C to + 85°C
U = 5M Life Cycles
W = Low PIM
Y = 40 GHz

Actuator
2 = Failsafe
6 = Failsafe with Suppression Diode

Coil Voltage
2 = 12 Vdc
3 = 28 Vdc
8 = 24 Vdc
9 = 15 Vdc

Connectors
08 = SMA Female
11 = 2.9 mm (K)
19 = PCB Pin Mount

Indicators
02 = No Indicators*
32 = Indicators

*Declared only with Circuit Options

Circuit Options
A = TTL High
B = TTL High Military (JANTX)
L = TTL Low

Note: TTL option includes suppression diode. Other options may be available and all combinations may not be possible. Please consult with factory.

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
J	REVISED PER ECO 8270	3/28/06	J.S.
K	REVISED AND REDRAWN PER ECO 11487	6/6/16	K.R.

Nominal Coil Voltage	Part Number
12 Vdc	401-2208
15 Vdc	401-2908
20 Vdc	401-2708
24 Vdc	401-2808
28 Vdc	401-2308

REVISIONS	K	K	K			
SHEET NO.	1	2	3			

APPROVALS	DATE
DRAWN SARA LEE	05/24/16
ENGINEERING G. NICKLAUS	6/2/2016
QUALITY S. LYNCH	6/2/2016
MANUFACTURING J. LEE	6/6/2016

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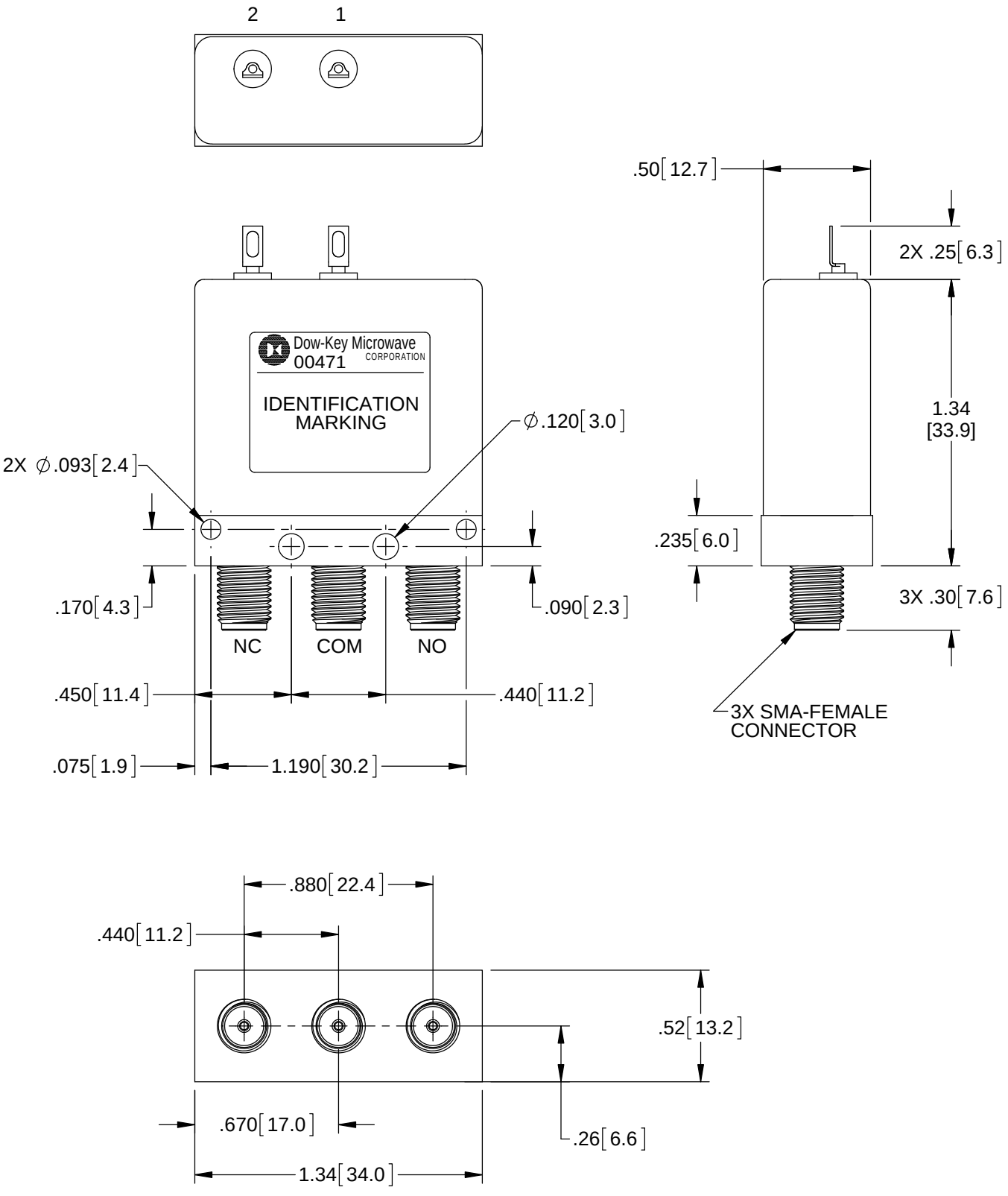
SWITCH, SPDT, FAILSAFE SMA-FEMALE CONNECTORS

CODE IDENT. NO.	DWG. NO.		
00471	401-2X08		
SCALE NONE	FINAL ASSY: 401-2308	SHEET 1 OF 3	

OUTLINE DRAWING:



[ ] MILLIMETERS

UNLESS OTHERWISE SPECIFIED TOLERANCES ARE: .XXX ±.010 ANGLES: ±3° .XX ±.030	CODE IDENT. NO. 00471	DWG. NO. 401-2X08	REV. K
	SCALE NONE	FINAL ASSY: 401-2308	SHEET 2 OF 3

SPECIFICATION:

1.0 RF CHARACTERISTICS:

1.1	FREQUENCY (GHz)	DC - 1	1 - 4	4 - 8	8 - 12	12 - 18
1.2	VSWR (RATIO MAX)	1.10:1	1.15:1	1.20:1	1.30:1	1.35:1
1.3	INSERTION LOSS (dB MAX)	0.10	0.15	0.20	0.30	0.35
1.4	ISOLATION (dB MIN)	85	80	70	65	60
1.5	RF POWER (WATTS CW MAX) AT SEA LEVEL, +25˚C, LOAD VSWR 1:1	200	125	90	75	60
1.6	IMPEDANCE (NOMINAL)	50 OHMS				

2.0 ACTUATION DATA:

2.1

NOMINAL VOLTAGE	OPERATING VOLTAGE	CURRENT (NOMINAL) @ NOMINAL VOLTAGE & 25˚C
12	11-14	185mA
15	13-17	160mA
20	17-23	140mA
24	20-28	120mA
28	24-32	90mA

2.2 SWITCHING TIME — 15mS MAX

2.3 OPERATING MODE — FAILSAFE

3.0 MECHANICAL:

3.1 CONTACT ARRANGEMENT — SPDT

3.2 RF CONTACTS — BREAK BEFORE MAKE

3.3 WEIGHT — 1.2oz (34g) NOMINAL

3.4 DESIGN LIFE — 1,000,000 CYCLES MINIMUM

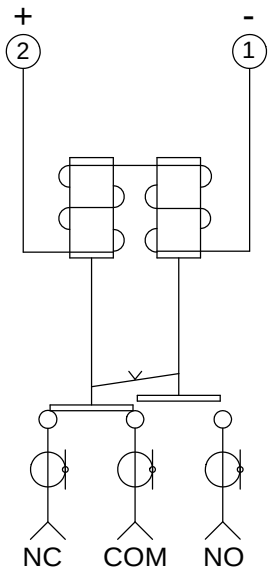
4.0 ENVIRONMENTAL:

4.1 OPERATING TEMPERATURE — -25˚C TO +65˚C

4.2 STORAGE TEMPERATURE — -55˚C TO +85˚C

4.3 SEAL: — EPOXY SEAL

SCHEMATIC:



SWITCH SHOWN IN THE DE-ENERGIZED POSITION

CODE IDENT. NO.	DWG. NO.	REV.
00471	401-2X08	K
SCALE NONE	FINAL ASSY: 401-2308	SHEET 3 OF 3