STANDARD COAXIAL SPnT up to 12.4 GHz – RAMSES Concept

R57 . . . . . .

Models
3 : Without 50 Ω termination
4 : With 50 Ω termination

Connector RF
0 : **N** up to 3 GHz
1 : **N** up to 12.4 GHz
2 : **BNC** up to 3 GHz (4)
5 : **TNC** up to 3 GHz (4)
6 : **TNC** up to 12.4 GHz (4)

Type
0 : Normally open
1 : Normally open + I.C.
2 : Latching
3 : Latching + I.C.
4 : Latching + S. C. O.(1)
5 : Latching + S. C. O. + I.C.(1)
8 : Latching + S. C. O. +A.R.(1)
9 : Latching + S. C. O.+ I.C.+ A.R. (1)

Actuator voltage (2)
2 : 12 Vdc
3 : 28 Vdc

Actuator terminal
0 : Solder Pins
5 : DSUB

Options
0 : Without option
1 : Positive common (2)
2 : Compatible TTL driver(1)
3 : With suppression diodes
4 : With suppression diodes and positive common (2)
8 : BCD driver TTLcompatible(1)(3)

Number of positions
3 : 3 Positions
4 : 4 Positions
5 : 5 Positions
6 : 6 Positions
7 : 7 Positions
8 : 8 Positions
9 : 9 Positions
0 : 10 Positions
1 : 11 Positions
2 : 12 Positions

I.C. : *Indicator contact.*
S.C.O. : *Self Cut Off*
A.R. : *Automatic Reset*

(1) : *These models are already equiped with suppression diodes.*
(2) : *Standard products are equiped with common minus.*
(3) : *Latching BCD driver enables also a manual reset through driver code 0000.*
(4) : *Available only up to 6 positions.*

- Latching models have a RESET pin which commands the reset of all positions. This command should be used before switching from one position to another. If not, two positions will be set at the same time.
  Note: During the RESET operation the current is : Setting current x number of positions.
- Latching models with AUTOMATIC RESET are available; these products have an internal SET/RESET circuit which automatically set the desired position and reset the non-selected positions. This option simplifies the use of latching switches by suppressing the RESET command in switching sequence and reducing the operating current consuption.
  For example: During the AUTOMATIC RESET operation, a 28V, 4 positions switch has temporarily a consumption of 250 mA, during 40 ms maximum only (See page 56).

AVAILABILITY OF OPTIONS ACCORDING TO BOTH TYPE AND NUMBER OF POSITIONS

Type	Number of positions	Available options
0 or 1	3 to 12	0 - 1 - 2 - 3 - 4 - 8
2 or 3	3 to 6	0 - 1 - 2 - 3 - 4
	7 to 12	0 - 1 - 3 - 4
4 or 5	3 to 6	0 - 2
	7 to 12	Not Available
8 or 9	3 to 12	0 - 2 - 8

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GENERAL SPECIFICATIONS - RF PERFORMANCES

Connectors		N - BNC - TNC						
Number of positions		3 to 6			7 to 10		11 and 12	
Frequency range	*GHz*	DC - 12.4			DC - 8		DC - 8	
		DC- 3	3 - 8	8 -12.4	DC- 3	3 - 8	DC- 3	3 - 8
V.S.W.R. (max)		1.20	1.35	1.50	1.30	1.50	1.35	1.70
Insertion Loss (max)	*dB*	.20	.35	.50	.30	.50	.50	1.00
Isolation (min)	*dB*	80	70	60	80	70	70	60

GENERAL SPECIFICATIONS - ADDITIONAL SPECIFICATIONS

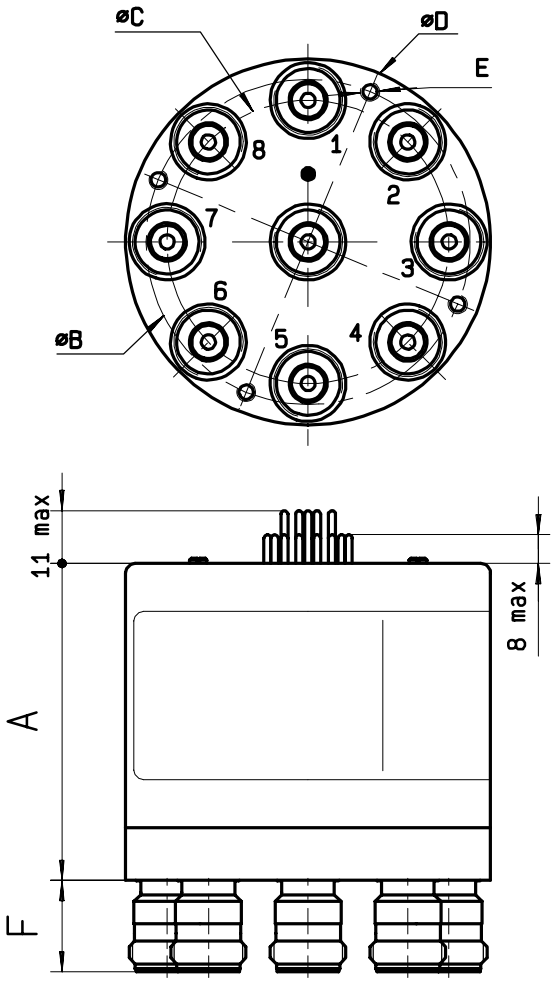
Operating mode		Normally open or Latching			
		Normally open		Latching	
Actuator voltage (nominal)	*Vdc*	12	28	12	28
Operating current at 23°C	*mA*	250	102	See table below	
Average power		See Power Rating Chart page 9			
Peak power	*kW*	1.5 (1 µs, 1 ‰)			
TTL INPUT	*High level* *Low level*	2.2 to 5.5 V (TTL option) / 3.5 to 5.5 V (BCD option) 0 to 0.8 V (TTL option) / 0 to 1.5 V (BCD option)			
Indicator rating		1 W - 30 V - 100 mA			
Switching time (max)	*ms*	15 (for automatic reset models, SP3T to SP6T: 40 ms, SP7T to SP12T: 50 ms)			
Life	SP3 to 6T	R573 serie	5 10^6 cycles per way		
		R574 serie	2 10^6 cycles per way		
	SP7 to 12T	2 10^6 cycles per way			
Connectors		N, TNC, BNC			
Actuator terminals		Solder pins or DSUB			
Operating temperature range	*°C*	-40, +85			
Storage temperature range	*°C*	-55, +85			
Impedance	Ω	50			
For terminated models		50 Ω termination ±5% 1 Watt per termination 3 W total power handling per switch			
Switching sequence		Break Before Make			

Operating current at 23°C (mA) SPnT LATCHING				
	12 V		28 V	
	manual reset	automatic reset	manual reset	automatic reset
SP 3 to 4 T	320 x n	640	125 x n	250
SP 5 to 8 T	320 x n	960	125 x n	375
SP 9 to 12 T	320 x n	1280	125 x n	500

n = number of ways



TYPICAL OUTLINE DRAWING



Type	Nb of positions	A	B dia.	C dia.	D dia.	E
Type 0, 1, 2 or 3 with option 0, 1, 3 or 4	3 to 6	56 MAX with Solder Pins 71 MAX with D Sub	54	44.7	63.5	6 holes M4/60°
	7 to 8		67.7	58.9	76.2	4 holes M4/90°
	9 to 10		88.9	76.2	101.6	5 holes M4/72°
	11 to 12		67.7	101.6	127	4 holes M4/90°
Type 0, 1, 2 or 3 with option 2 or 8 Type 4, 5, 8 or 9 with option 0, 1, 2, 3, 4 or 8	3 to 6	66 MAX with Solder Pins 71 MAX with D Sub	54	44.7	63.5	6 holes M4/60°
	7 to 8		67.7	58.9	76.2	4 holes M4/90°
	9 to 10		88.9	76.2	101.6	5 holes M4/72°
	11 to 12		67.7	101.6	127	4 holes M4/90°

	F
N	17.7
BNC	11.3
TNC	11.3