

CT3 Datasheet

CT3 is a high quality Audio Selector Switch.

It is based on the same high precision, Swiss made switching mechanism as the DACT CT2 audio attenuators.

CT3 is a non-shortening type of switch making sure neither of the input sources will be short-circuiting each other when the switch is operated.

CT3-5-4/PCB switches two channels simultaneously. For both channels it switches signal AND ground. This is an effective way to minimize the risk of creating ground loops.

In the same way CT3-5-8/wire switches 8 poles.

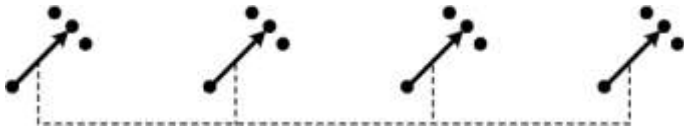
FEATURES

- 2/4/8-pole switches 2/4/8 channels simultaneously
- Gold plated contacts for long lifetime even in hot and humid environments
- High reliability
- Matches perfectly with DACT CT2 audio attenuators
- Mechanically "programmable" for 1 to 3 or 5 or 6 positions

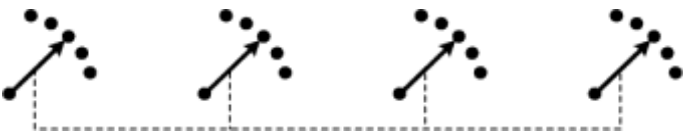
TYPICAL APPLICATIONS

- Input selector in Do-It-Yourself Hi-Fi / audio projects
- Input selector switch in active or passive preamplifiers
- Selector switch in professional audio equipment
- Switch for long lifetime applications
- Test equipment selector switch

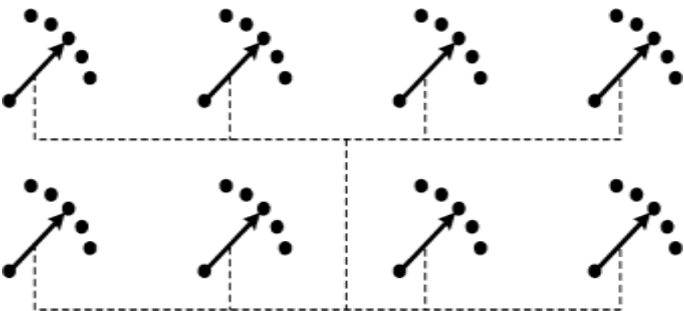
PRINCIPLES OF OPERATION



CT3-3-4, 3 positions, 4 poles

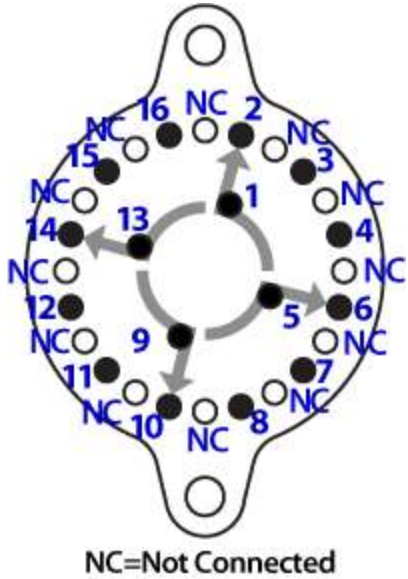


CT3-5-4, 5 positions, 4 poles



CT3-5-8/wire, 5 positions, 8 poles

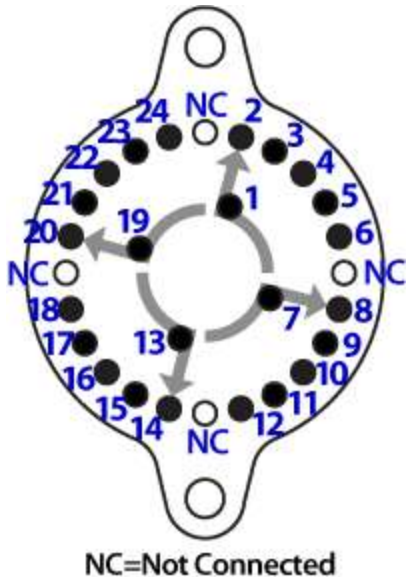
CONNECTIONS, CT3-3-4



Pin no.	Connection - example only (input selector)
1	Output, channel 1, signal
2	Input, channel 1, signal, source 1
3	Input, channel 1, signal, source 2
4	Input, channel 1, signal, source 3
5	Output, channel 1, ground
6	Input, channel 1, ground, source 1
7	Input, channel 1, ground, source 2
8	Input, channel 1, ground, source 3
9	Output, channel 2, signal
10	Input, channel 2, signal, source 1
11	Input, channel 2, signal, source 2
12	Input, channel 2, signal, source 3
13	Output, channel 2, ground
14	Input, channel 2, ground, source 1
15	Input, channel 2, ground, source 2
16	Input, channel 2, ground, source 3
17	Input, channel 2, signal, source 4

Seen from the rear side
(connector side)

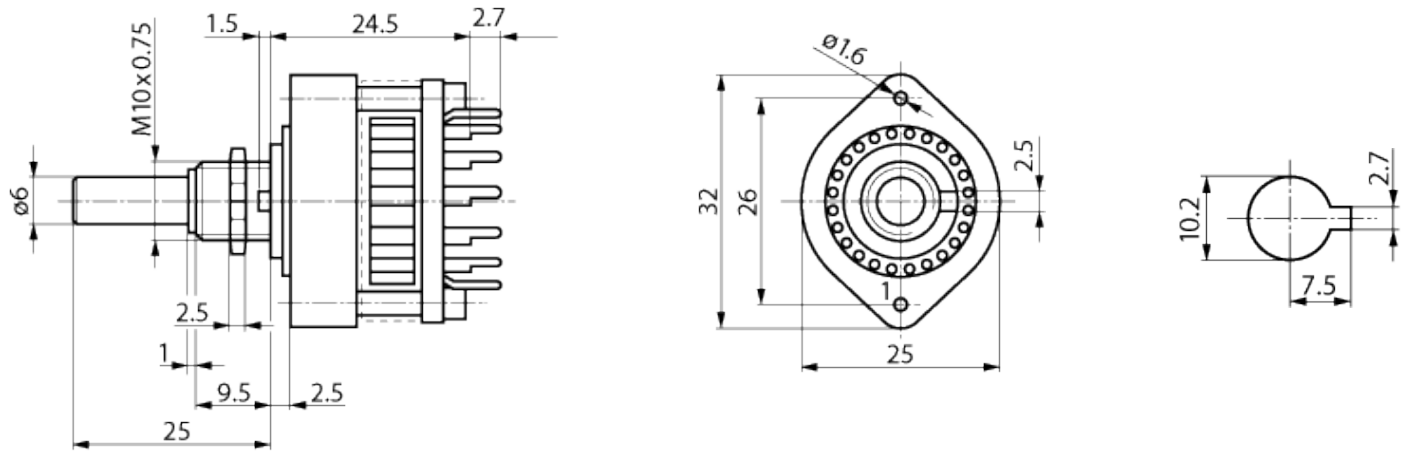
CONNECTIONS, CT3-5-4



Pin no.	Connection - example only (input selector)
1	Output, channel 1, signal
2	Input, channel 1, signal, source 1
3	Input, channel 1, signal, source 2
4	Input, channel 1, signal, source 3
5	Input, channel 1, signal, source 4
6	Input, channel 1, signal, source 5
7	Output, channel 1, ground
8	Input, channel 1, ground, source 1
9	Input, channel 1, ground, source 2
10	Input, channel 1, ground, source 3
11	Input, channel 1, ground, source 4
12	Input, channel 1, ground, source 5
13	Output, channel 2, signal
14	Input, channel 2, signal, source 1
15	Input, channel 2, signal, source 2
16	Input, channel 2, signal, source 3
17	Input, channel 2, signal, source 4
18	Input, channel 2, signal, source 5
19	Output, channel 2, ground
20	Input, channel 2, ground, source 1
21	Input, channel 2, ground, source 2
22	Input, channel 2, ground, source 3
23	Input, channel 2, ground, source 4
24	Input, channel 2, ground, source 5

Seen from the rear side
(connector side)

OUTLINE DRAWING AND DIMENSIONS



SPECIFICATIONS

MAXIMUM RATINGS

Note	Parameter	Conditions/comments	Value	Unit
1	Switching capacity	(resistive load)	2V/2A 24V/0.6A 42V/0.4A	AC/DC
1	Operating ambient temp. range		-25 to +70 (-13 to +158)	deg. C (deg. F)
1	Storage temperature range		-40 to +85 (-40 to 185)	deg. C (deg. F)
2	Test voltage	(contact to contact) (contact to earth)	1,000 1,000	V V

MECHANICAL CHARACTERISTICS

Note	Parameter	Conditions/comments	Value	Unit
	Number of positions	CT3-5-4/PCB, CT3-5-8/Wire CT3-6-2/Wire CT3-3-4/Wire	1-5 1-6 1-3	
	Indexing angle	CT3-5-4/PCB, CT3-5-8/Wire CT3-6-2/Wire, CT3-3-4/Wire	15 30	deg.
	Switching function		non-shorting	
	Gold plating, contacts	(hard-gold)	3	μm
	Gold plating, wiper	(hard-gold)	8	μm
3	Mechanical life		>25,000	cycles
	Switching torque		8-9	Ncm
	Nut tightening torque		max. 300	Ncm

DC ELECTRICAL CHARACTERISTICS

Note	Parameter	Conditions/comments	Value	Unit
4	Insulation resistance	(contact to contact) (contact to earth)	$> 10^{13}$ $> 10^{12}$	Ohm
	Contact resistance	(new)	max. 0.01	Ohm
	Contact capacitance	(adjacent contacts)	1	pF

Notes

- 1 Exposure to maximum rating conditions for extended periods of time may affect device reliability
- 2 Rms voltage, 50 Hz, 60% relative humidity, applied for 1 minute.
- 3 One cycle is defined as a full rotation from one end stop to the other and return.
- 4 Measured with 500 VDC for 1 minute.

ANTISTATIC CHARGES

To avoid noises from antistatic charges we suggest that one of the following two precautions is taken:

1. The CT3 is mounted with electrical connection between its click-house and the equipment chassis.
2. A 1 MOhm resistor is connected between the CT3 click-house and equipment ground.