



General Description

The MT 4 four-channel distribution transformer is packaged in a space saving 1U, 19-inch rack-mount tray. The fully isolated, high-performance toroid transformers provide flat frequency response within 1 dB from 40 Hz to 20 kHz. Each transformer is designed for an 8 Ω 100 watt input, and 100 watt 70 volt or 100 watt 100 volt output. The recommended load for the 70 volt tap is 50 Ω . The recommended load for the 100 volt tap is 100 Ω . Convenient Euroblock connectors are provided on the rear of the chassis.

The MT 4 comes ready-to-use with four mounted transformers and strain-relief Euro connectors. The tray with Euroblock connectors (model KT 4) and individual transformers with mounting hardware (model TF 4) are available separately, allowing the installer to build a tray with just the number of channels required. (see the mounting in Figure 4, next page). This makes this ideal for any rack system where high-performance 100 watt, 100 / 70 volt, isolated distribution transformers are required.

For 25 volt audio distribution systems, the TF 4 can be used by connecting the 25V loads between its 70V and 100V taps (green and yellow wires). Thermal resistance of the TF 4 is only 1C/W and is lower when mounted in a MT 4 chassis.

Other creative combinations are possible. For example, the yellow/green pair can drive 8 Ω loads near to the amplifier, with the red/yellow pair being simultaneously used for a 70 V system. Depending on loading of the 70 V system, this arrangement presents an impedance between 4 and 8 Ω to the amplifier.

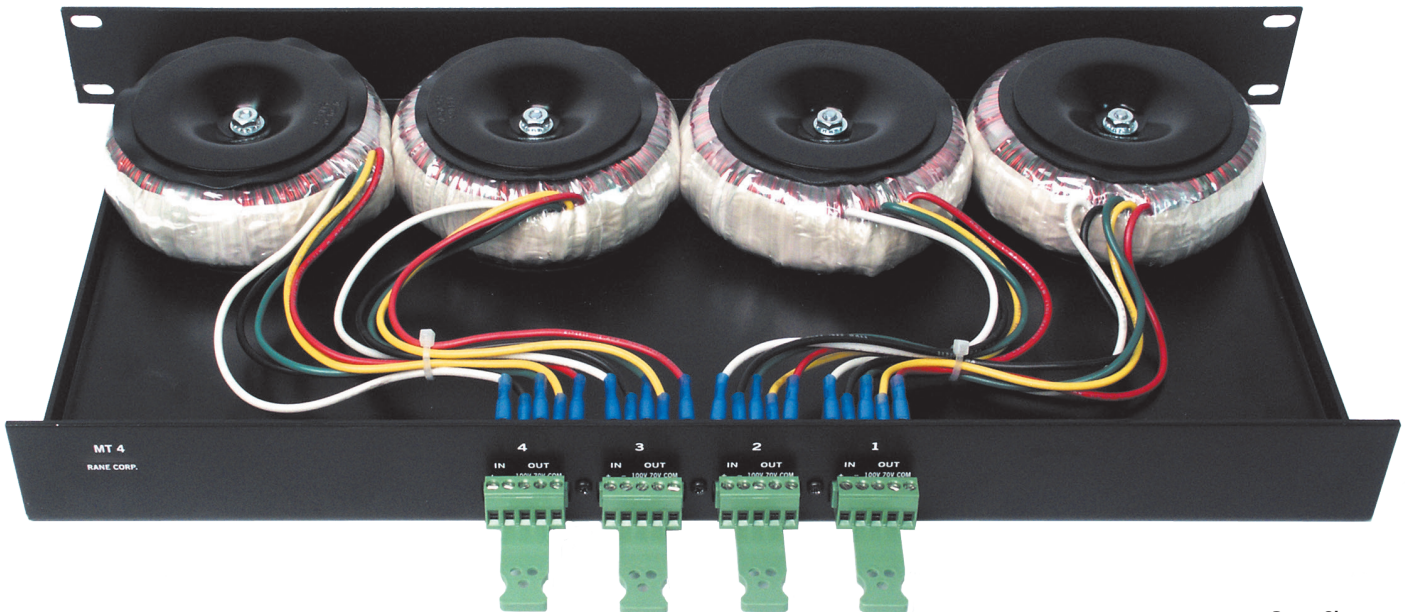
TF 4 can be used at power ratings much higher than 100 W, provided that the low-cut frequency is moved up accordingly. Since voltage capability doubles with each octave, power capability quadruples each octave. See the RaneNote "[Constant-Voltage Audio Distribution Systems: 25, 70.7 & 100 Volts](#)" available at rane.com.

Features

- Four channels, 100 watts, 100 / 70 volt
- Input 8 Ω , 100 watts
- Euroblock strain-relief connectors
- 1U, 19 inch rackmount tray
- Frequency response 40 Hz to 20 kHz +0, -1 dB
- Separate mounting tray and individual transformers available

Options

- MT 4 rackmount tray with four transformers (shown below)
- KT 4 rackmount tray only
- TF 4 individual transformers

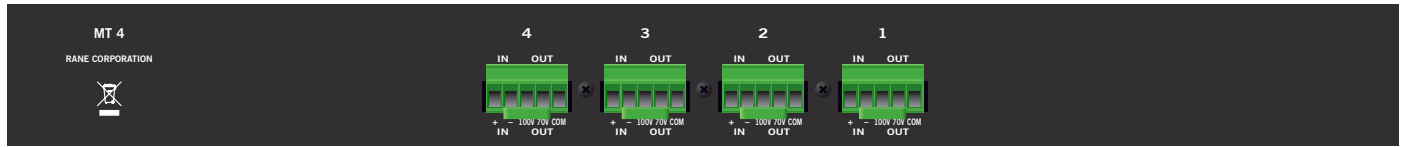


MT 4

MULTICHANNEL TRANSFORMER



Rear Panel



Parameter	Specification	Limit	Units	Conditions/Comments
Transformer Rating	100		Watts	Maximum average power
	30		Watts	Maximum continuous average power
.....Connectors	Chassis mounted Euroblock			Strain relief
.....Chassis	1U rack-mount tray			
Input voltage	28.28		Vrms	100 watts / 8 Ω
Output Tap 1: Voltage	70.7		Vrms	50 Ω load
Output Tap 2: Voltage	100		Vrms	100 Ω load
Frequency Response	40 to 20 kHz	+0, -1	dB	100 watts with specified load
THD	0.1	typ	%	1 kHz, 100 watts
THD	0.2	typ	%	40 Hz to 20 kHz, 100 watts
Unit: Panel Construction	12 gauge steel			
.....Size: 1U	1.75"H x 19"W x 9"D			4.45 cm x 48.26 cm x 22.86 cm
.....Weight	18 lb			8.2 kg

TF 4 Transformer, 100 V / 100 W

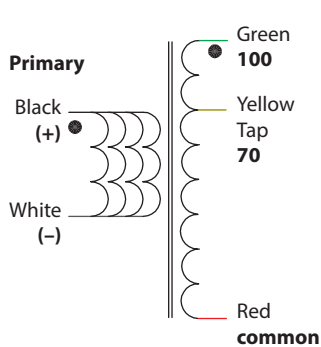


Figure 1. Schematic

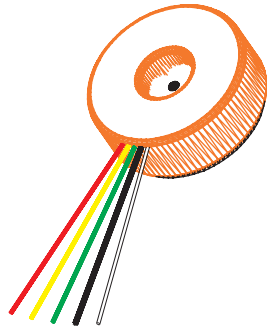


Figure 2. Perspective

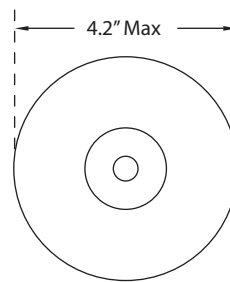


Figure 3. Top View

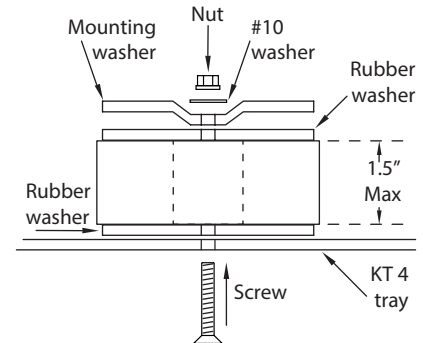


Figure 4. Mounting, Side View

Insulation & Flammability

1. Insulation materials compatible with surface operating temperatures $> 60^{\circ}\text{C}$.
2. All materials flammability rated UL94V0.

Electrical

1. Primary DC resistance: Black-White $< 500\text{ m}\Omega$
2. Secondary DC resistance: Red-Yellow $< 4\Omega$, Red-Green $< 6\Omega$.
3. Magnetizing Inductance: Primary: $> 1\text{H}$ (1V, 100 Hz)
4. Leakage Inductance: Primary (secondaries shorted): $20\text{ }\mu\text{H}$.

Performance Specifications

1. Max Output Power: 100 Vrms @ 1 Arms.
2. Average Input Power (for thermal dissipation): 30 W.
3. Maximum Power Loss: $< 20\text{ W}$ @ 100 W Output (8 Ω load).

Warning: This product may contain chemicals known to the State of California to cause cancer, or birth defects or other reproductive harm.

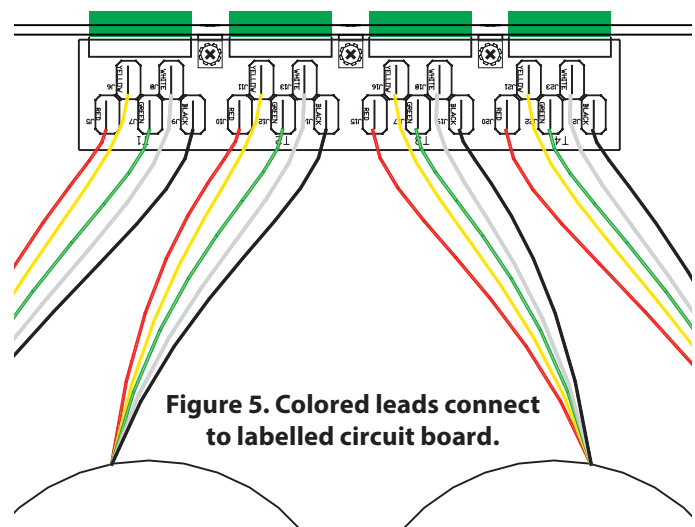


Figure 5. Colored leads connect to labelled circuit board.