

## Moving Coil Input Transformer LL9226

LL9226 is an MC transformer based on (and pin compatible with) our classic LL9206, but with reduced copper resistance and level capability. The new design has resulted in an even better frequency response but still with enough no load impedance to maintain the LF bandwidth. The transformer is built up from two coils, each coil with one secondary winding surrounded by two primary windings. Advantages with this structure are excellent frequency response and high immunity to surrounding magnetic fields. All winding ends are available on the pins. Thus, the transformer can be used with a set of different turns ratios.

The LL9226 core is our cobalt based uncut amorphous strip core. The transformer is housed in a mu metal can.

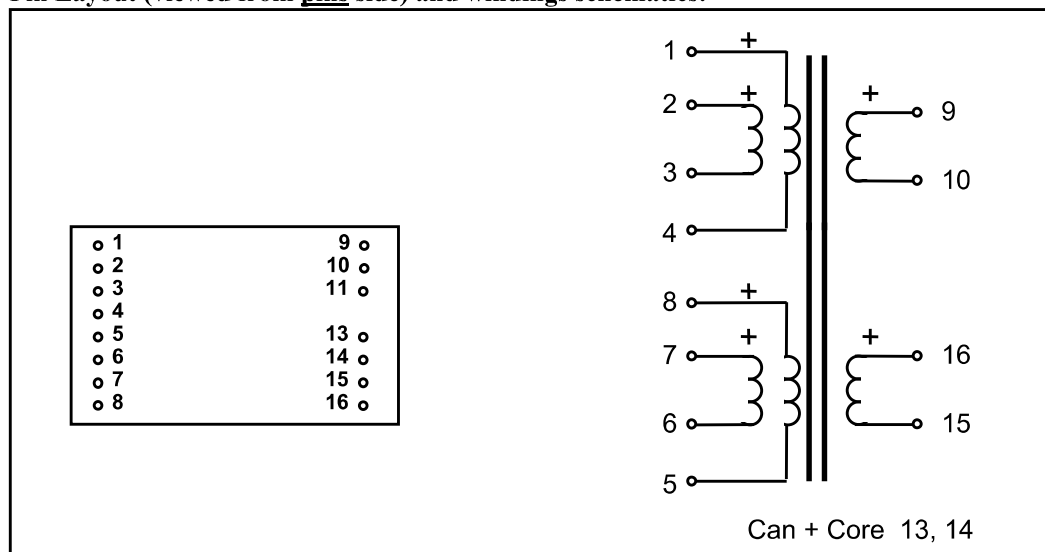
**Turns ratio:**

1 + 1 + 1 + 1 : 10 + 10

**Dims: (Length x Width x Height above PCB (mm))**

30 x 22.5 x 14.5

**Pin Layout (viewed from pins side) and windings schematics:**



<b>Spacing between pins:</b>	2.54 mm (0.1")
<b>Spacing between rows of pins:</b>	22.86 mm (0.9")
<b>Weight:</b>	29 g
<b>Rec. PCB hole diameter:</b>	1.5 mm
<b>Static resistance of each primary (average):</b>	5 Ω
<b>Static resistance of each secondary (average):</b>	130 Ω
<b>Frequency response</b> (@ -10 dBu, Connection "A", source 50Ω , load 100 kΩ) :	10 Hz -- 50 kHz +/- 1 dB 5 Hz -- 100 kHz +/- 1.5 dB
<b>Distortion</b> (primaries connected in series, source impedance 40Ω) :	< 0.5% @ -2 dBu, 50 Hz
<b>Primary no load impedance @ 0 dBu, 50 Hz, all in series:</b>	3 kΩ typically
<b>Core / Can:</b>	Amorphous Strip Core / Mu metal can
<b>Isolation between windings / between windings and core:</b>	3 kV / 1.5 kV

Turns ratio and possible use at different termination alternatives. Termination alternatives are shown on the next page			
Termination Alternative	Turns ratio	Copper Resistance prim/sec	Suggested use for best frequency response
A	1:5	20 Ω / 260 Ω	MC cartridge < 100 Ω
B	1:5	5 Ω / 65 Ω	Not recommended
C	1:10	5 Ω / 260 Ω	MC cartridge < 50 Ω
D	1:10	1 Ω / 65 Ω	Not recommended
E	1:20	1 Ω / 260 Ω	MC cartridge < 25 Ω

**Application hint:**  
As the LL9226 does not have Faraday shields, both sides of the transformer should have a common ground reference.

# LL9226 Termination Alternatives

(Left side is input if not stated otherwise)  
(Pins side view)

