LUNDAHL
— TRANSFORMERS —

Transformer DIN unit

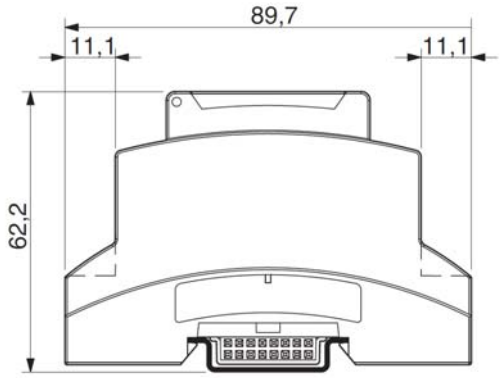
Here is the short information about wiring configurations and assembling.

Depending on which transformer you chose, you will need to configure jumper wires on the PCB to meet your needs. Bellow you find most common configurations. We will be glad to help you with other configuration not listed here.

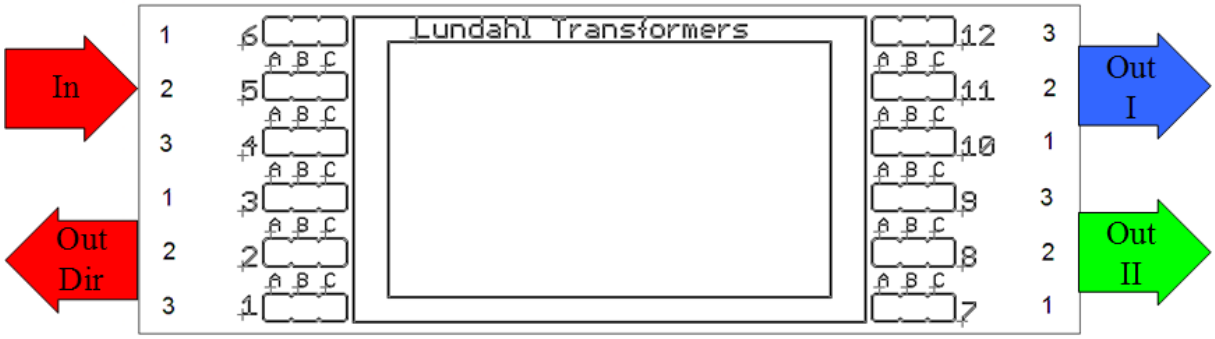
Recommended work flow:

1. Wire and solder the jumper wires (use wires with isolation)
2. Solder the screw terminals
3. Solder the transformer in place
4. Test the unit with AC signal (don't use Ohmmeter/DC voltage because it will magnetize the transformer's core)
5. Put down unit in the DIN base (lower black housing part) until PCB snaps in
6. Place the DIN cover (upper grey housing part) on the base and see that it snaps in place
7. Connect wires to screw terminals in the same manner as in XLR connectors (1-GND, 2-Hot, 3-Cold)

Housing – Phoenix Contact BC 35,6 - 2TE (2 pitch), Material: polycarbonate
The housing is suitable for use in common installation distributor boxes and complies with the standard DIN 43880.
When need to be installed with screws pull out the orange mounting flanges. Mounting holes distance is 98mm.
Screw Terminals – Phoenix Contact MKDSP 1,5/6 Ratings: Max 300V/10A, Cu wire 0,05 – 2,1 mm^2 / 30 - 14 AWG



DIN PCB v1.0 – Top view



NOTES:
1-2-3 numbers are for the external wiring which is XLR-like (1-Ground, 2-Hot, 3-Cold).
Arrows shows the intended signal flow to/from this unit.
Arrow colours mean different GND's (ground references).

Recommended PCB jumper configurations

LL1527, LL1527XL
(Important: Ground pin "E" of the transformer towards OUT I & II side of the PCB)

Ratio 1:1 (serial:serial) In - Out I
Connect 1B with 4A
Connect 2C with 4C
Connect 5A with 5B
Connect 7B with 10C
Connect 8B with 11C
Connect 9A with 11A
Connect 12B with 12C

Ratio 1:1 (parallel: parallel) In - Out I
Connect 1B with 4C
Connect 2C with 5C
Connect 4A with 4B
Connect 5A with 5B
Connect 7B with 10C
Connect 8A with 11A
Connect 9A with 12A
Connect 11B with 11C
Connect 12C with 12C

Ratio 1:2 (parallel: serial) In - Out I
Connect 1B with 4C
Connect 2C with 5C
Connect 4A with 4B
Connect 5A with 5B
Connect 7B with 10C
Connect 8B with 11C
Connect 9A with 11A
Connect 12B with 12C

Important note: Ground reference should be provided for position 10 for proper transformer operation (see transformer's data sheet).

LL1540 (Important: Ground pin "E" of the transformer towards OUT I & II side of the PCB)

Ratio 1:1 (serial:serial) In - Out I
Connect 1B with 4A
Connect 2C with 4C
Connect 5A with 5B
Connect 7B with 10C
Connect 8B with 11C
Connect 9A with 11A
Connect 12B with 12C

Important note: Ground reference should be provided for position 10 for proper transformer operation (see transformer's data sheet).

LL1570 – LL1570XL

Ratio 1:1 (serial:serial) In - Out I

Connect 1B with 4A
Connect 2C with 4C
Connect 5A with 5B
Connect 6A with 6B
Connect 7A with 10A
Connect 8B with 11C
Connect 9A with 11A
Connect 10B with 10C
Connect 12B with 12C

Ratio 1:1 (parallel: parallel) In - Out I

Connect 1B with 4C
Connect 2C with 5C
Connect 4A with 4B
Connect 5A with 5B
Connect 6A with 6B
Connect 7A with 10A
Connect 8A with 11A
Connect 9A with 12A
Connect 10B with 10C
Connect 11B with 11C
Connect 12C with 12C

Ratio 1:2 (parallel: serial) In - Out I

Connect 1B with 4C
Connect 2C with 5C
Connect 4A with 4B
Connect 5A with 5B
Connect 6A with 6B
Connect 7A with 10A
Connect 8B with 11C
Connect 9A with 11A
Connect 10B with 10C
Connect 12B with 12C

Important note: Ground reference should be provided for positions 6 (IN-1) and 10 (OUT I-1) for proper transformer operation (see LL1570, LL1570XL data sheet).

Splitting In – Dir Out – Out I – Out II

Positions 1 to 6, connect A's with B's
Connect 1C with 4C
Connect 2C with 5C
Positions 7 to 12, connect B's with C's

Important note: Ground reference should be provided for positions 3 (and/or 6) (IN-1 and/or DIR OUT-1), 7 (OUT II-1) and 10 (OUT I-1) for proper transformer operation (see LL1570, LL1570XL data sheet).

LL1581XL

Splitting In – Dir Out – Out I – Out II

Positions 1 to 6, connect A's with B's
Connect 1C with 4C
Connect 2C with 5C
Positions 7 to 12, connect B's with C's

Important note: Ground reference should be provided for positions 7 (OUT II-1) and 10 (OUT I-1) for proper transformer operation (see transformer's data sheet).

LL1588

Ratio 1:1 (serial:serial) In – Out I

Connect 1B with 4A
Connect 2C with 4C
Connect 5A with 5B
Connect 6A with 6B
Connect 7A with 10A
Connect 8B with 11C
Connect 9A with 11A
Connect 10B with 10C
Connect 12B with 12C

Ratio 1:1 (parallel: parallel) In – Out I

Positions 4 to 6, connect A's with B's
Connect 1B with 4C
Connect 2C with 5C
Positions 11 and 12, connect B's with C's
Connect 8A with 11A
Connect 9B with 12A
Connect 7B with 10C

Important note: Ground reference should be provided for position 10 (OUT I-1) for proper transformer operation (see transformer's data sheet).

Splitting In – Dir Out – Out I – Out II

Positions 1 to 6, connect A's with B's
Connect 1C with 4C
Connect 2C with 5C
Positions 7, 8, 9, 11 and 12, connect B's with C's

Important note: Ground reference should be provided for position 7 (OUT II-1) for proper transformer operation (see transformer's data sheet).