LUNDAHL
— TRANSFORMERS —

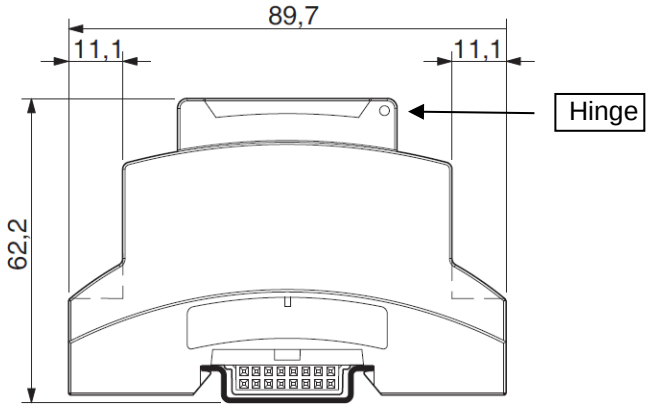
Transformer DIN unit

Depending on which transformer you chose, you will need to configure jumper wires on the PCB to match the transformer and meet your needs. On the next page you find the most common configurations. We will be glad to help you with other configurations if the one you need cannot be found here.

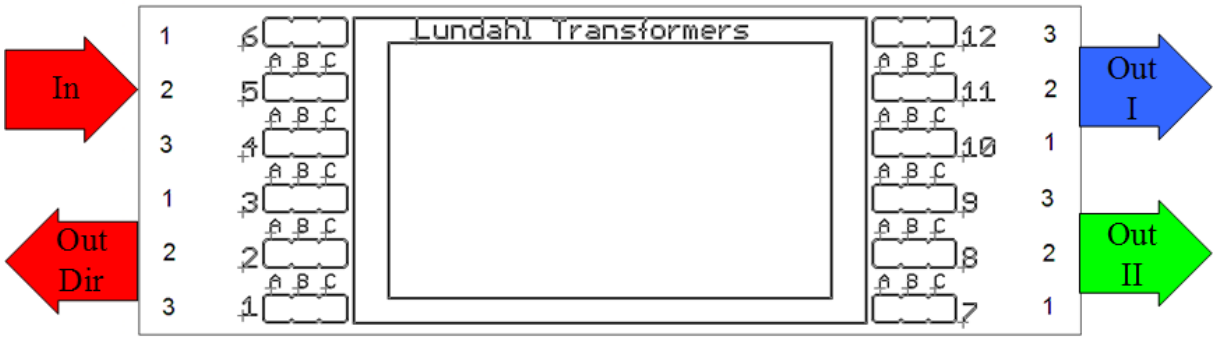
Recommended work flow:

1. On the PCB, wire and solder the jumper wires (use insulated wires)
2. On the PCB, place and solder the screw terminals
3. On the PCB, place and solder the transformer
4. Test the assembled board with AC signal (don't use Ohmmeter/DC voltage as this might magnetize the transformer's core)
5. Put down the PCB in the DIN base (lower black housing part) until it snaps in
6. Take the DIN cover (upper grey housing part) and turn cover hinge side to output side of the PCB
7. Place the DIN cover (upper grey housing part) on the base and press it until it snap in place
8. 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 needed 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 indicators 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).

R161117 MZ

Recommended PCB configurations (with reservation for typographical mistakes, inaccuracies or omissions)

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

Ratio 1:1 (serial : serial) In – Dir Out – Out I

Connect 1A with 1B	Connect 7B with 10C
Connect 3A with 3B	Connect 8B with 11C
Connect 5A with 5B	Connect 9A with 11A
Connect 6A with 6B	Connect 12B with 12C
Connect 2A with 5C	
Connect 1C with 4A	
Connect 2C with 4C	

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

Connect 1A with 1B	Connect 7B with 10C
Connect 2A with 2B	Connect 8A with 11A
Connect 3A with 3B	Connect 9A with 12A
Connect 4A with 4B	Connect 11B with 11C
Connect 5A with 5B	Connect 12C with 12C
Connect 6A with 6B	
Connect 1C with 4C	
Connect 2C with 5C	

Ratio 1:2 (parallel : serial) In – Dir Out – Out I

Connect 1A with 1B	Connect 7B with 10C
Connect 2A with 2B	Connect 8B with 11C
Connect 3A with 3B	Connect 9A with 11A
Connect 4A with 4B	Connect 12B with 12C
Connect 5A with 5B	
Connect 6A with 6B	
Connect 1C with 4C	
Connect 2C with 5C	

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 should be oriented towards OUT I & II side of the PCB)

Ratio 1:1 (serial : serial) In – Dir Out – Out I

Connect 1A with 1B	Connect 7B with 10C
Connect 3A with 3B	Connect 8B with 11C
Connect 5A with 5B	Connect 9A with 11A
Connect 6A with 6B	Connect 12B with 12C
Connect 2A with 5C	
Connect 1C with 4A	
Connect 2C with 4C	

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 – Dir Out – Out I

Connect 1A with 1B	Connect 7A with 10A
Connect 3A with 3B	Connect 8B with 11C
Connect 5A with 5B	Connect 9A with 11A
Connect 6A with 6B	Connect 10B with 10C
Connect 2A with 5C	Connect 12B with 12C
Connect 1C with 4A	
Connect 2C with 4C	

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

Connect 1A with 1B	Connect 7A with 10A
Connect 2A with 2B	Connect 8A with 11A
Connect 3A with 3B	Connect 9A with 12A
Connect 4A with 4B	Connect 10B with 10C
Connect 5A with 5B	Connect 11B with 11C
Connect 6A with 6B	Connect 12C with 12C
Connect 1C with 4C	
Connect 2C with 5C	

Ratio 1:2 (parallel : serial) In – Dir Out – Out I

Connect 1A with 1B	Connect 7A with 10A
Connect 2A with 2B	Connect 8B with 11C
Connect 3A with 3B	Connect 9A with 11A
Connect 4A with 4B	Connect 10B with 10C
Connect 5A with 5B	Connect 12B with 12C
Connect 6A with 6B	
Connect 1C with 4C	
Connect 2C with 5C	

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

Connect 1A with 1B	Connect 7B with 7C
Connect 2A with 2B	Connect 8B with 8C
Connect 3A with 3B	Connect 9B with 9C
Connect 4A with 4B	Connect 10B with 10C
Connect 5A with 5B	Connect 11B with 11C
Connect 6A with 6B	Connect 12B with 12C
Connect 1C with 4C	
Connect 2C with 5C	

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

Connect 1A with 1B	Connect 7B with 7C
Connect 2A with 2B	Connect 8B with 8C
Connect 3A with 3B	Connect 9B with 9C
Connect 4A with 4B	Connect 10B with 10C
Connect 5A with 5B	Connect 11B with 11C
Connect 6A with 6B	Connect 12B with 12C
Connect 1C with 4C	
Connect 2C with 5C	

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 – Dir Out – Out I

Connect 1A with 1B	Connect 12B with 12C
Connect 3A with 3B	Connect 8B with 11C
Connect 5A with 5B	Connect 9A with 11A
Connect 6A with 6B	Connect 7B with 10C
Connect 2A with 5C	
Connect 1C with 4A	
Connect 2C with 4C	

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

Connect 1A with 1B	Connect 11B with 11C
Connect 2A with 2B	Connect 12C with 12C
Connect 3A with 3B	Connect 8A with 11A
Connect 4A with 4B	Connect 9B with 12A
Connect 5A with 5B	Connect 7B with 10C
Connect 6A with 6B	
Connect 1C with 4C	
Connect 2C with 5C	

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

Connect 1A with 1B	Connect 7B with 7C
Connect 2A with 2B	Connect 8B with 8C
Connect 3A with 3B	Connect 9B with 9C
Connect 4A with 4B	Connect 11B with 11C
Connect 5A with 5B	Connect 12B with 12C
Connect 6A with 6B	
Connect 1C with 4C	
Connect 2C with 5C	

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