

Zone Control Unit



Features and Functions

- **Monitoring of up to 6 speaker circuits (basic version)**
- **Connection of up to 3 amplifiers with 250 W each (basic version)**
- **Connection of a backup amplifier with 250 W (basic version)**
- **Number of speaker circuits and amplifiers to be monitored can be expanded to an almost unlimited amount**
- **The mandatory call relay of optional volume control units of type 6 VCU can be controlled by the zone control unit**
- **2 general purpose control line outputs and 1 potential-free input per control board**

The zone control unit is used together with the INTRON-D *plus* communication and public address system from INDUSTRONIC. It consists of 3 different board types which are connected via bus board in a 19" sub rack.

The digital 9 DCI 01/02 control board is the main component. The 9 DCI 01/02 controls up to 3 relay boards of the 6 DRU 03 series.

With one 6 DRU 03 relay board you can trigger up to 6 speaker circuits. In case one power amplifier fails, the relay board switches over to a backup amplifier. In total, you can control up to 3 relay boards with one 9 DCI 01/02 control board.

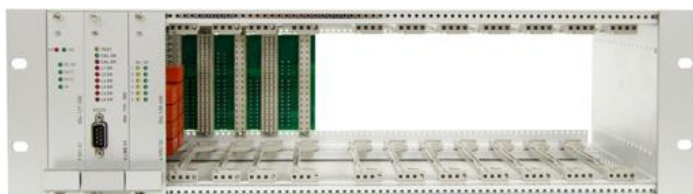
The 6 LME 01 line monitoring board monitors up to 6 speaker circuits for short circuit, earth leakage, impedance changes and cable break. Measuring interval as well as the measuring frequency are defined via an easy-to-use configuration software. If the value measured differs from the reference value minus the percentage you defined, a failure message is output. In case of short circuit, the line is disconnected. If volume control units are installed in the INTRON-D *plus* system, their integrated mandatory call relay can be triggered to ensure that the impedance is measured correctly.

Free slots inside the rack can be used by other types of modules for further applications or can be covered with blind plates.

Modular Design

INDUSTRONIC's range of zone control units comprises several modular expansion stages and offers a high degree of flexibility for different customer and project requirements. For the basic version, you can trigger up to 6 speaker circuits and connect 3 amplifiers with 250 W output power each.

Furthermore, you can also integrate other boards so that the zone control unit can be expanded to up to 36 speaker circuits and 18 250-W amplifiers for each sub rack. To implement more complex solutions you can also use several sub racks.



The basic version for up to 6 speaker circuits and three 250-W amplifiers consists of:

- 1 x 3 ZBT 01
- 1 x 9 DCI 01/02
- 1 x 6 LME 01
- 1 x 6 DRU 03



1 x 6 LME 01 = Expansion to up to 12 speaker circuits
1 x 6 DRU 03 = and six 250-W amplifiers



1 x 6 LME 01 = Expansion to up to 18 speaker circuits
1 x 6 DRU 03 = and nine 250-W amplifiers



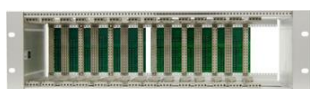
The maximum expansion stage in a sub rack for up to 36 speaker circuits and 18 250-W amplifiers consists of:

- 1 x 3 ZBT 01/2
- 2 x 9 DCI 01/02
- 6 x 6 LME 01
- 6 x 6 DRU 03

Components



Type	3 ZBT 01
Description	19" sub rack with 1 bus board to be equipped with the 9 DCI 01/02, 6 DRU 03 and 6 LME 01 boards
Type Number	216-340-600



Type	3 ZBT 01/2
Description	19" sub rack with 2 bus boards to be equipped with the 9 DCI 01/02, 6 DRU 03 and 6 LME 01 boards
Type Number	216-340-700



Type	9 DCI 01/02
Description	Control board for zone control unit, control of up to 3 relay boards of the 6 DRU 03 series, 1 potential-free input, 2 control line outputs, LEDs to indicate operating states and error
Type Number	9 DCI 01: 304-127-200 9 DCI 02: 304-127-300



Type	6 DRU 03
Description	Relay board for zone control unit, triggering of up to 6 speaker circuits, up to 3 relay boards per zone control unit, 3 amplifier inputs, 6 outputs (2 per amplifier input), switch-over from power amplifier to backup amplifier in case of failure, LEDs to indicate active speaker circuits and a connected backup amplifier
Type Number	304-128-400



Type	6 LME 01
Description	Line monitoring board for zone control unit, monitoring of up to 6 speaker circuits (for impedance changes, short circuit and earth leakage, cable break), measuring frequency and interval can be selected, LEDs to indicate error states
Type Number	304-110-300



Type	3 DSM 01
Description	Bus board to add another zone control unit
Type Number	304-127-500



Type	LME Bypass
Description	Alternative plug-in module for the 6 LME 01 line monitoring board (if monitoring of the speaker circuits is not required).
Type Number	304-503-600

Technical Data

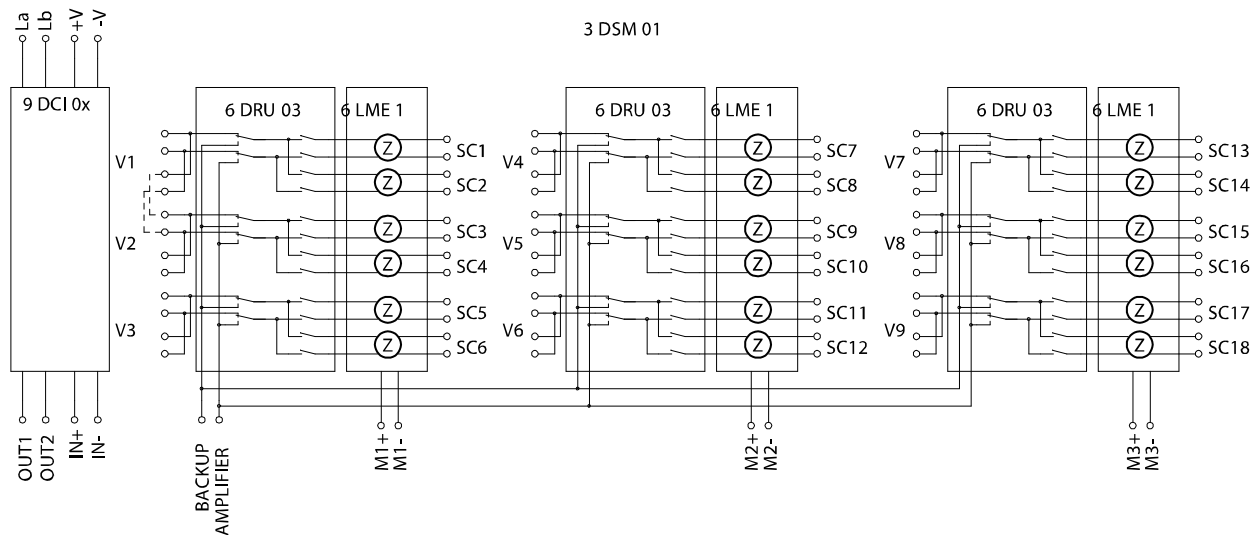
Electrical Data

• Operating voltage range	42 VDC to 72 VDC
• Current consumption	200 mA to 1200 mA, depending on the expansion stage
• Outputs	Max. 72 VDC, 100 mA
• Potential-free input	10 VDC to 72 VDC
• Switchable amplifier power	300 W
• Relay contact	120 VAC / 3.5 A

Environmental Requirements and Standards

• Ambient temperature during operation	-5 °C to +50 °C (+23 °F to +122 °F)
• Relative humidity (non-condensing)	Max. 95 %

Block Diagram



- La / Lb** from the 12 DDL 0x digital line card
- V1 to V9** Amplifier circuits
- SC1 to SC18** Speaker circuits
- Z** Measurement of line impedance
- +V / -V** Operating voltage
- OUT1 / OUT2** Control line outputs
- IN+ / IN-** Potential-free input
- M1 to M3** Indication "Measurement active"

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