LDT 050032 Display-Module for Decoder for Switchboard Light User Manual

Littfinski DatenTechnik (LDT)
Operating Instruction

Contents

050032 Display-Module for Decoder for Switchboard Light

Display-Module for Decoder for Switchboard Lights from the Digital-Professional-Series !
GBS-Display-F Part-No.: 050032
>> finished module <<
The GBS-Display-Module together with the MasterModule GBS-Master will build the Decoder for Switchboard Lights GBS-DEC. Up to 4 Display Modules can be connected onto each Decoder for Switchboard Lights GBS.

Each Display-Module GBS-Display can control
⇒ 16 turnout symbols, up to 32 track-occupancy symbols or different 2- to 4-aspects DB-light signal symbols.
This product is not a toy! Not suitable for children under 14 years of age!
The kit contains small parts, which should be kept away from children under 3!
Improper use will imply danger of injuring due to sharp edges and tips! Please store this instruction carefully.

Introduction/Safety instruction:

You have purchased the Display-Module GBS-Display for theDecoder for Switchboard Lights GBS-DEC.
The Display-Module GBS-Display is a high quality product thatis supplied within the Digital-Professional-Series of LittfinskiDatenTechnik (LDT).
We are wishing you having a good time using this product.
The finished module comes with 24 month warranty.

- Please read the following instructions carefully. Warranty will expire due to damages caused by disregarding the operating instructions. LDT will also not be liable for any consequential damages caused by improper use or installation.
- Also, note that electronic semiconductors are very sensitive to electrostatic discharges and can be destroyed by them. Therefore, discharge yourself before touching the modules on a grounded metal surface (e.g. heater, water pipe or protective earth connection) or work on a grounded electrostatic protection mat or with a wrist strap for electrostatic protection.
- We designed our devices for indoor use only.

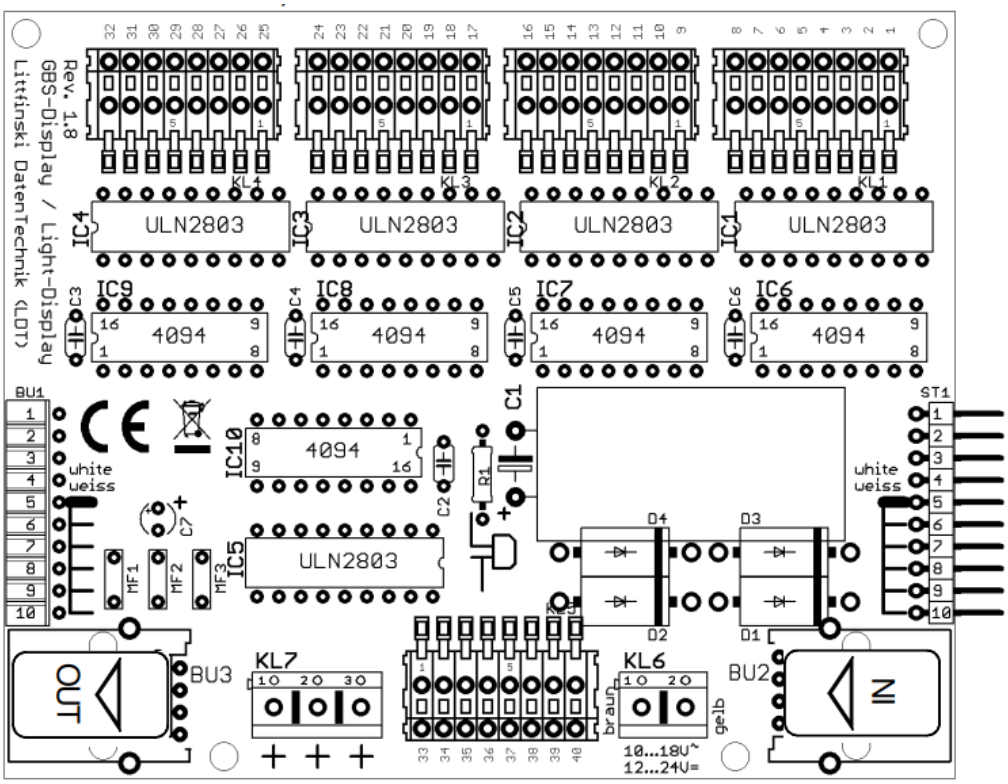
Connecting GBS-Display Modules to the Master Module GBS-Master:

- Attention: Before starting the installation switch off thedrive voltage by pushing the stop button or disconnect themain supply.
  Connect the Display-Module GBS-Display to a Master-ModuleGBS-Master via the 10-poles pin-plug-bar or to an alreadyconnected Display-Module.
  Avoid any offset of the pin contacts to the pin socketcontacts. The modules are correct connected if the pc-boardwill be flush at top and bottom.
  A Decoder for Switchboard Lights GBS-DEC consists of one Master-Module GBS-Master and up to 4 Display-Modules.

Voltage supply to the Display-Modules:
Each Display-Module receives the voltage from a model- railway transformer via the clamp KL6. The voltage is acceptable between 10 and 18 Volt AC. If you use light emitting diodes on your Layout Commander Panel you can use one 52VA transformer for the supply to all 4 Display-Modules of one Decoder for Switchboard Lights GBS-DEC. If you use incandescent lamps at the switchboard panel you can supply with one 52VA transformer about two Display-Modules. Please attend to the equal polarity (marked braun (brown) and gelb (yellow)) at the clamp KL6 of the connected modules.

Connecting switchboard panel symbols:

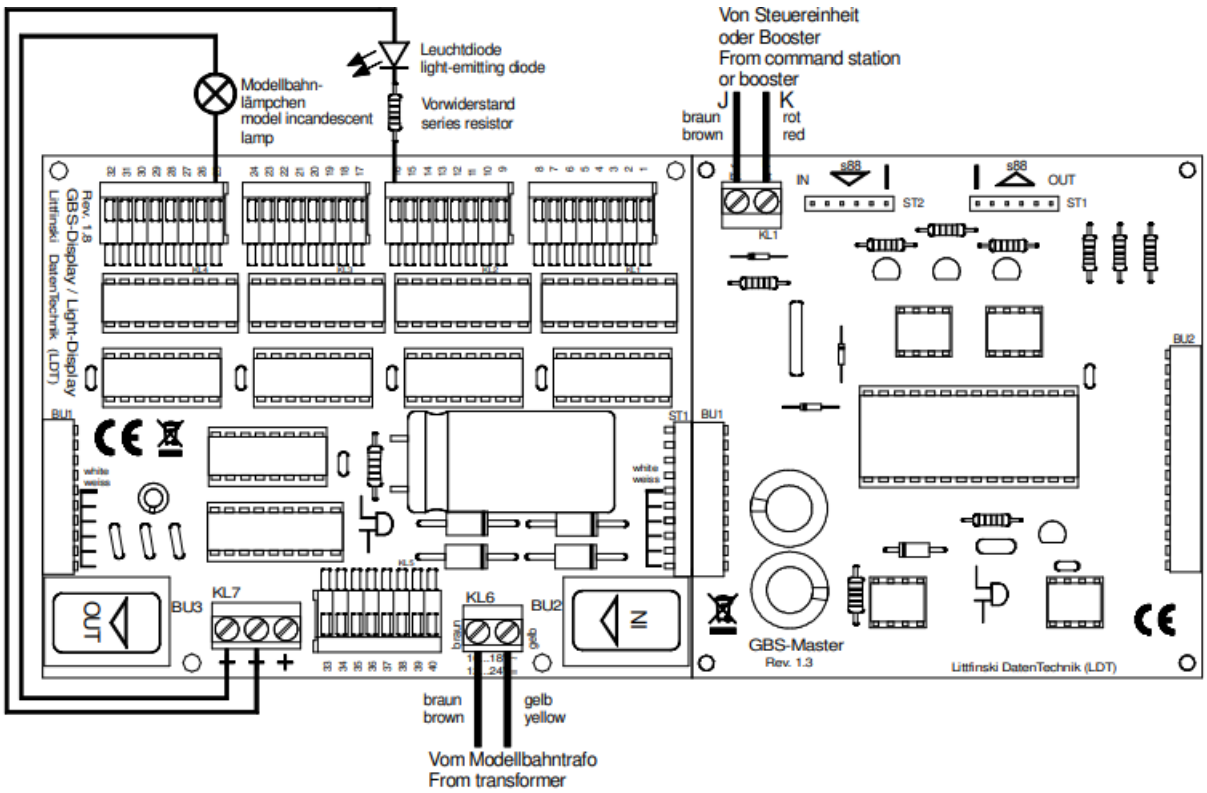
Each Display-Module contains 40 outputs. Model railway incandescent lamps can be connected directly. Light emitting diodes require absolutely a series resistor (about 4,7kOhm). The DC-voltage at the 40 outputs will be about 1.4 times the input voltage. If an AC-voltage (on KL6) will be e.g. 15 Volt, the DC-voltage at the outputs will be about 21 Volt. The common plus pole for all outputs is the clamp KL7 (picture 1 at the rear side).



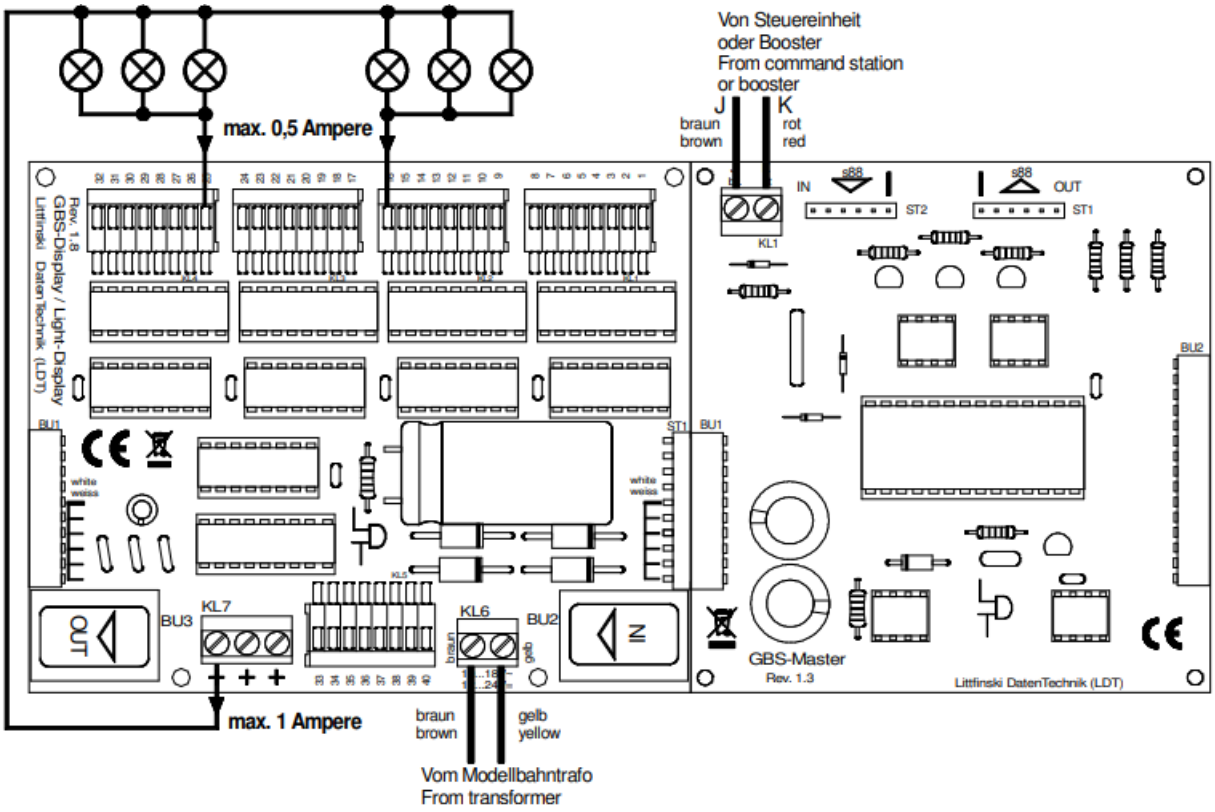
Each output can cover a maximum load of 0.5 Ampere. For snapping-in a connection cable on one of the 40 outputs pull carefully down the white lever and insert the cable from the top into the clamp. The common plus pole (clamp KL7) has three inputs which can cover a load of 1 Ampere each. Distribute the common plus wires of the lamps and light-diodes evenly via the three plus clamps KL7 (picture 2 at the rear side).

Setting address- and operation mode:

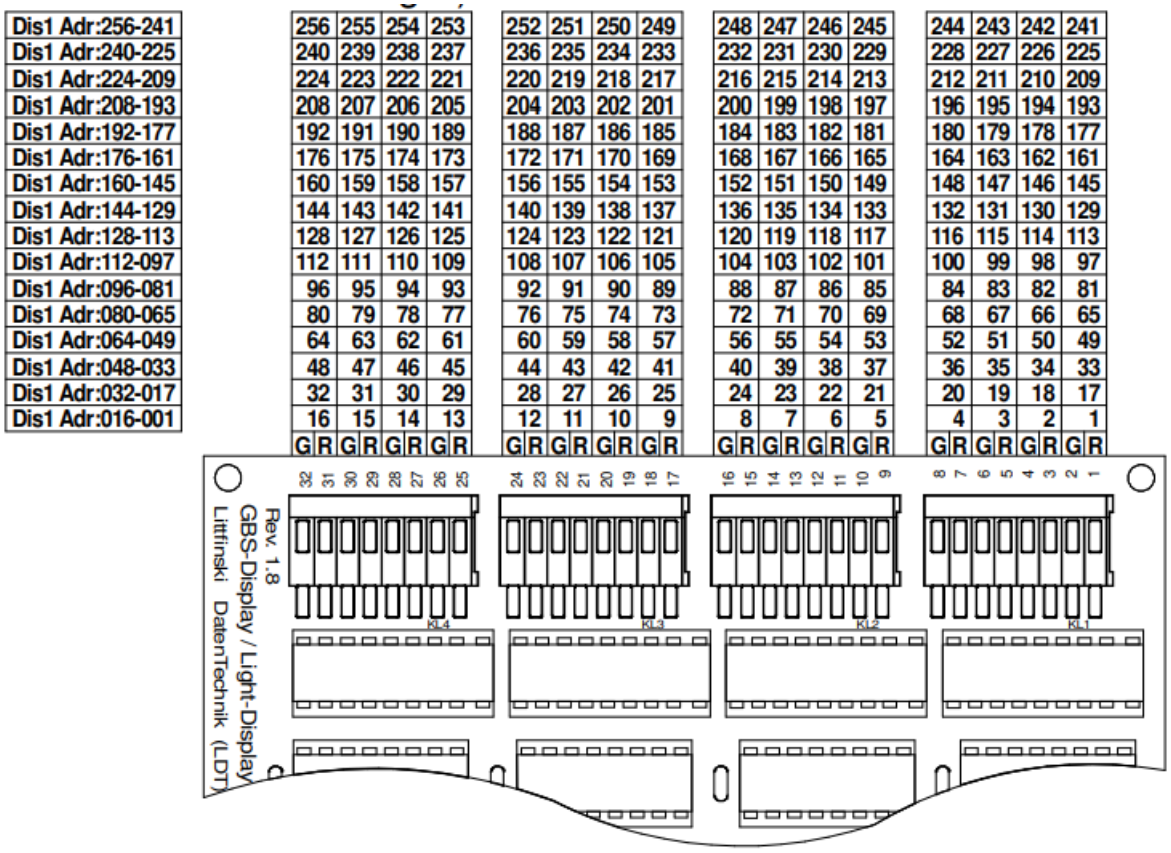
The Decoder for Switchboard Lights receives digital addresses as any other decoder. If the command station sends e.g. a turnout shifting command, this command will be received from the Turnout-Decoder (e.g. S-DEC-4) and will shift the turnout. At the same time the Decoder for Switchboard Lights will receive this command and will switch over the corresponding turnout symbol at the switchboard panel.
Each Display-Module receives 16 coherent addresses (picture 3). Each address contains two outputs (by turnouts for round and straight) at the Display-Module. Therefore is it possible to control e.g. 16 turnout symbols (picture 4). Further information for address setting can be found within the operating instruction for the Master-Module GBS-Master. It is possible to control with the GBS-DEC beside turnout symbols also track occupancy symbols and 2- to 4-aspect DB-signal symbols at the switchboard panel. 2-aspect DBsignals (block- or track-close signals) will be connected as same as turnout symbols.
Picture 5 at the rear side of this instruction shows how a DBblock signal and a 3-aspect DB advance signal can be connected. Picture 6 shows the wiring of a 4-aspect DB-main- and a 3-aspect DB-advance signal. The control via decoder addresses will be analogue to the control of signals via the Light- Signal-Decoder LS-DEC-DB. Further information concerning the signal-symbol control can be found within the operating instruction for the Master-Module GBS-Master.
Picture 1: Incandescent lamps can be connected directly. For light emitting diodes is it absolutely required to assemble a seriesresistor (about 4,7kOhm, related to the input voltage at KL6).



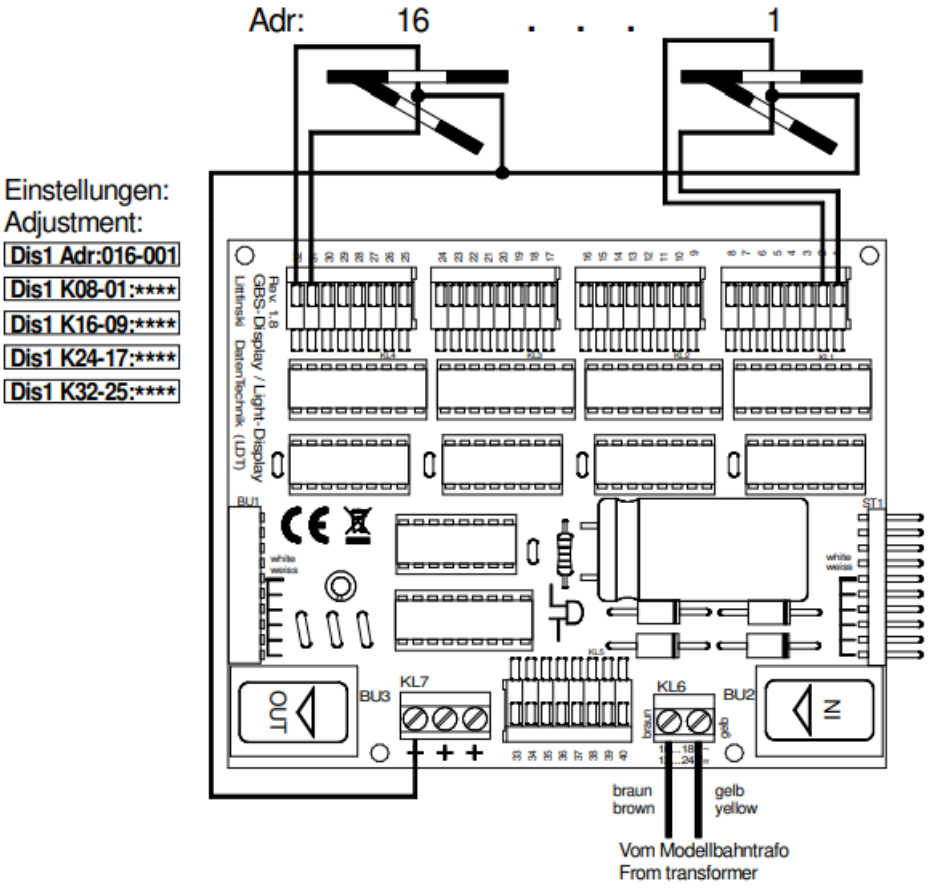
Picture 2: Each of the 40 outputs can cover a maximum load of 0.5 Ampere. Each input of the three plus-clamps (KL7) can be loaded with a maximum of 1 Ampere.



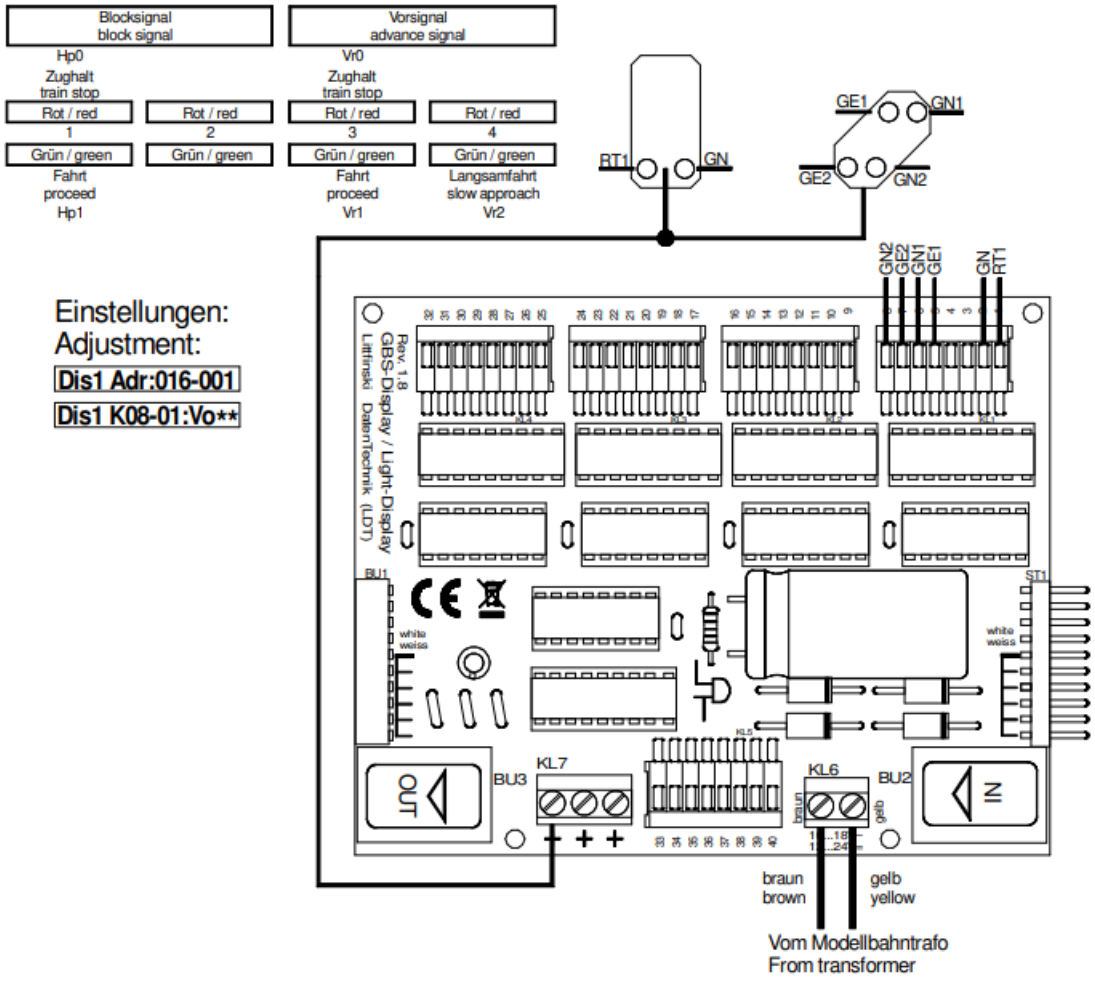
Picture 3: Each Display-Module receives 16 coherent addresseTo each address are two outputs assigned (LED or lamps for turnout round and straight).



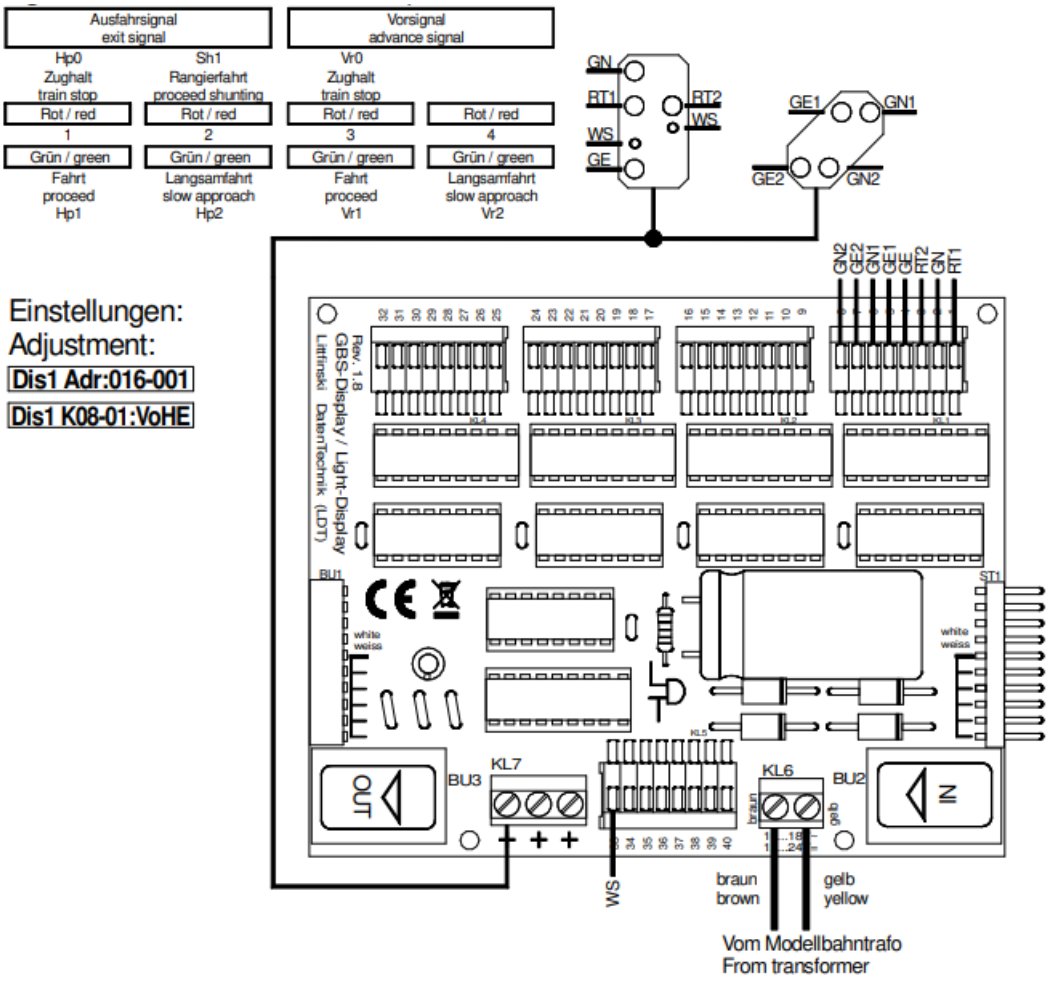
Picture 4: At the outputs 1 to 32 can be 16 turnouts symbols connected. At the below sample there will be the LED´s or lamps switched via the address 1 to 16.



Picture 5: The outputs of the clamp KL1 will control a DB-blockand a DB-advance signal symbol. As indicated at KL1 the sameapplies for KL2 to KL4.



Picture 6: By connecting a 4-aspect DB-exit signal symbol all wires of the white LED`s or lamps shall be connected with output 33 (Signal to KL2 = 34 etc.).



Colored sample connections can be found on our Web-Site www.ldt-infocenter.com at the section “Sample Connection”.

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Documents / Resources

	**LDT 050032 Display-Module for Decoder for Switchboard Light** [pdf] User Manual 050032 Display-Module for Decoder for Switchboard Light, 050032, Display-Module for Decoder for Switchboard Light, Decoder for Switchboard Light, Switchboard Light

References

- de:ldt-infocenter [LDT]