

**Controlling your Miniature World**

**OC32**

**Device Definitions  
Germany (DE)**

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## Release management

This manual applies to

- Software
  - OC32Config Rel 0.0.2.0 (or later)
- Definitions file
  - OC32Devices DE 2013/03/05

## Reading Aid

This manual contains the description of definitions for devices, relevant to a **German (DE)** theme on your Miniature World. For a full understanding it is necessary to read the OC32 Manual as well.

To be clear: A “device” in this respect means: A part that is connected to and controlled by the OC32, so for example a railway signal, traffic light or turnout-drive.

Device Definitions include:

- The order in which the different connections of your devices have to be connected to the OC32. The First pin of the OC32, used to control the device is [N+0], the next are [N+ 1], [N+2], etc. In the diagrams usually just [0], [1] is shown to save some space. It is important that the right connection-order is maintained for the Device Definition to work correctly on the device;
- The characteristics by which each pin, used by the device, is driven;
- The “aspect definitions” belonging to the device. The definitions for pin [N+0] form the complete set to control the device by the program Koploper.  
When controlling the OC32 by DCC, usually (depending on your digital control system and software) you can address aspects 0 and 1 for each DCC address only. In order to use all aspects of the device, the “aspects” 2 to 11 defined at [N+0] can be addressed indirectly through aspects 0 and 1 of subsequent pins [N+ 1], [N+2], etc

Device Definitions do **NOT** include:

- The type of output (sink driver, source driver, resistor-array) to be used on the OC32. This depends on the electrical properties of the device you are using/connecting. Please consult the manual of the “device” and the OC32 manual. So the Device Definitions only define the order in which outputs have to be connected and the way the device is controlled from software, not the electrical properties.

Should you run into unsolvable situations, please use the forum at <http://www.dinamousers.net>

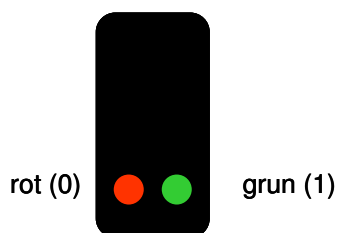
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## 1 Main Signals (Block Signal, Main Signal)

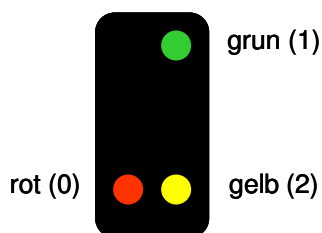
[2]DE:Blocksignal



Pin [N+0]  
 Asp 0 = Hp0  
 Asp 1 = -  
 Asp 2 = Hp1(Vr0)  
 Asp 3 = -  
 Asp 4 = Hp1(Vr1)  
 Asp 5 = -  
 Asp 6 = Hp1(Vr2)  
 Asp 7 = -

Pin [N+1]  
 Asp 0 = (R) Hp1  
 Asp 1 = -

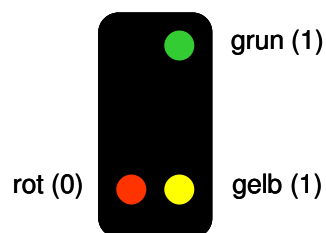
[3]DE:Hauptsignal



Pin [N+0]  
 Asp 0 = Hp0  
 Asp 1 = -  
 Asp 2 = Hp1(Vr0)  
 Asp 3 = Hp2(Vr0)  
 Asp 4 = Hp1(Vr1)  
 Asp 5 = Hp2(Vr1)  
 Asp 6 = Hp1(Vr2)  
 Asp 7 = Hp2(Vr2)

Pin [N+1]  
 Asp 0 = (R) Hp1  
 Asp 1 = (R) Hp2

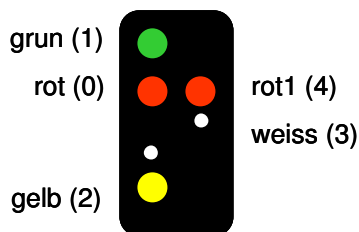
[2] DE:Hauptsignal Hp0/2



Pin [N+0]  
 Asp 0 = Hp0  
 Asp 1 = -  
 Asp 2 = -  
 Asp 3 = Hp2(Vr0)  
 Asp 4 = -  
 Asp 5 = Hp2(Vr1)  
 Asp 6 = -  
 Asp 7 = Hp2(Vr2)

Pin [N+1]  
 Asp 0 = -  
 Asp 1 = (R) Hp2

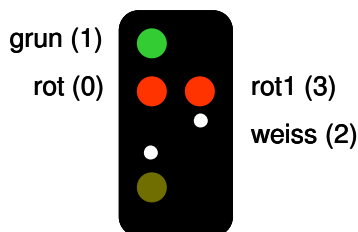
[5]DE:Hauptsperrsignal



Pin [N+0]  
 Asp 0 = Hp00  
 Asp 1 = Sh1  
 Asp 2 = Hp1(Vr0)  
 Asp 3 = Hp2(Vr0)  
 Asp 4 = Hp1(Vr1)  
 Asp 5 = Hp2(Vr1)  
 Asp 6 = Hp1(Vr2)  
 Asp 7 = Hp2(Vr2)

Pin [N+1]  
 Asp 0 = (R) Hp1  
 Asp 1 = (R) Hp2

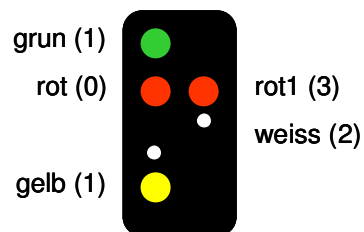
[4] DE:Hauptsperrsignal Hp0/1



Pin [N+0]  
 Asp 0 = Hp00  
 Asp 1 = Sh1  
 Asp 2 = Hp1(Vr0)  
 Asp 3 = -  
 Asp 4 = Hp1(Vr1)  
 Asp 5 = -  
 Asp 6 = Hp1(Vr2)  
 Asp 7 = -

Pin [N+1]  
 Asp 0 = (R) Hp1  
 Asp 1 = -

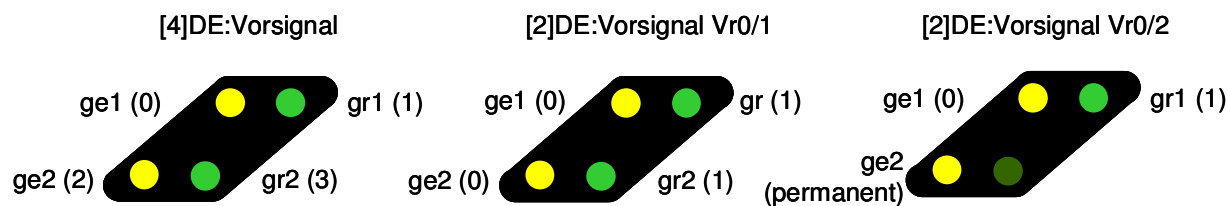
[4] DE:Hauptsperrsignal Hp0/2



Pin [N+0]  
 Asp 0 = Hp00  
 Asp 1 = Sh1  
 Asp 2 = -  
 Asp 3 = Hp2(Vr0)  
 Asp 4 = -  
 Asp 5 = Hp2(Vr1)  
 Asp 6 = -  
 Asp 7 = Hp2(Vr2)

Pin [N+1]  
 Asp 0 = -  
 Asp 1 = (R) Hp2

## 2 Distant Signals



Pin [N+0]  
Asp 0 = Vr0  
Asp 1 = Vr1  
Asp 2 = Vr2  
Asp 3 = Gedoofd

Pin [N+0]  
Asp 0 = Vr0  
Asp 1 = Vr1  
Asp 2 = -  
Asp 3 = Gedoofd

Pin [N+0]  
Asp 0 = Vr0  
Asp 1 = -  
Asp 2 = Vr2  
Asp 3 = -

Pin [N+1]  
Asp 0 = (R) Vr2  
Asp 1 = (R) Gedoofd

Pin [N+1]  
Asp 0 = -  
Asp 1 = (R) Gedoofd

Pin [N+1]  
Asp 0 = (R) Vr2  
Asp 1 = -

## 3 Shunting Signals

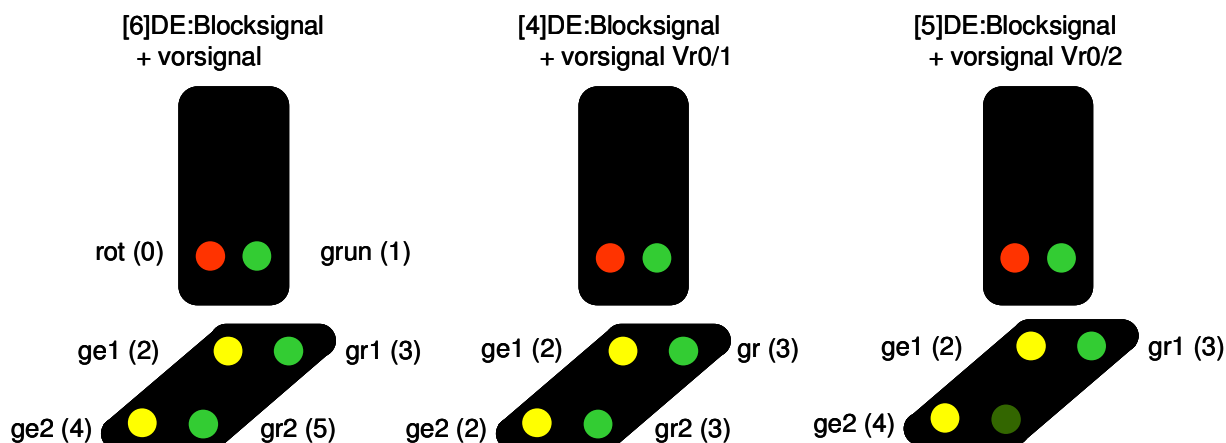


Pin [N+0]  
Asp 0 = Sh0  
Asp 1 = Sh1



Pin [N+0]  
Asp 0 = Sh0  
Asp 1 = Sh1

## 4 Block Signal with Distant Signal



Note: On the left you find the standard version of the signal with the most comprehensive control capabilities, on the right you will find variations with less connections and less capabilities at which only the differences with the standard version are mentioned. Lamps shown in the standard version and variations are connected to the same outputs.

Pin [N+0]

Asp 0 = Hp0  
 Asp 1 = -  
 Asp 2 = Hp1/Vr0  
 Asp 3 = -  
 Asp 4 = Hp1/Vr1  
 Asp 5 = -  
 Asp 6 = Hp1/Vr2  
 Asp 7 = -

Pin [N+1]

Asp 0 = (R) Hp1/Vr0  
 Asp 1 = -

Pin [N+2]

Asp 0 = (R) Hp1/Vr1  
 Asp 1 = -

Pin [N+3]

Asp 0 = (R) Hp1/Vr2  
 Asp 1 = -

Pin [N+0]

Asp 0 = Hp0  
 Asp 1 = -  
 Asp 2 = Hp1/Vr0  
 Asp 3 = -  
 Asp 4 = Hp1/Vr1  
 Asp 5 = -  
 Asp 6 = -  
 Asp 7 = -

Pin [N+1]

Asp 0 = (R) Hp1/Vr0  
 Asp 1 = -

Pin [N+2]

Asp 0 = (R) Hp1/Vr1  
 Asp 1 = -

Pin [N+3]

Asp 0 = -  
 Asp 1 = -

Pin [N+0]

Asp 0 = Hp0  
 Asp 1 = -  
 Asp 2 = Hp1/Vr0  
 Asp 3 = -  
 Asp 4 = -  
 Asp 5 = -  
 Asp 6 = Hp1/Vr2  
 Asp 7 = -

Pin [N+1]

Asp 0 = (R) Hp1/Vr0  
 Asp 1 = -

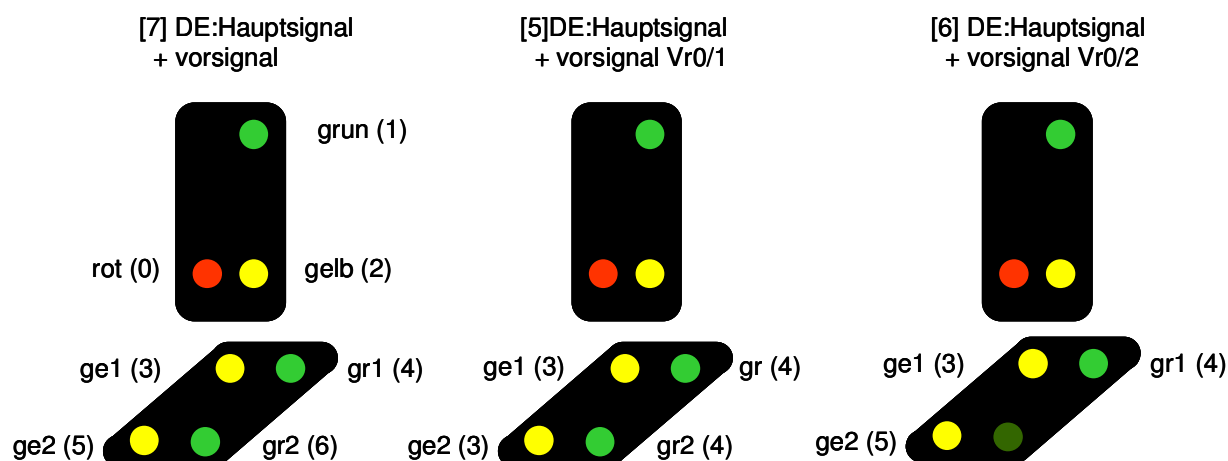
Pin [N+2]

Asp 0 = -  
 Asp 1 = -

Pin [N+3]

Asp 0 = (R) Hp1/Vr2  
 Asp 1 = -

## 5 Main Signal with Distant Signal



Note: On the left you find the standard version of the signal with the most comprehensive control capabilities, on the right you will find variations with less connections and less capabilities at which only the differences with the standard version are mentioned. Lamps shown in the standard version and variations are connected to the same outputs.

Pin [N+0]

Asp 0 = Hp0  
 Asp 1 = -  
 Asp 2 = Hp1/Vr0  
 Asp 3 = Hp2/Vr0  
 Asp 4 = Hp1/Vr1  
 Asp 5 = Hp2/Vr1  
 Asp 6 = Hp1/Vr2  
 Asp 7 = Hp2/Vr2

Pin [N+0]

Asp 0 = Hp0  
 Asp 1 = -  
 Asp 2 = Hp1/Vr0  
 Asp 3 = Hp2/Vr0  
 Asp 4 = Hp1/Vr1  
 Asp 5 = Hp2/Vr1  
 Asp 6 = -  
 Asp 7 = -

Pin [N+0]

Asp 0 = Hp0  
 Asp 1 = -  
 Asp 2 = Hp1/Vr0  
 Asp 3 = Hp2/Vr0  
 Asp 4 = -  
 Asp 5 = -  
 Asp 6 = Hp1/Vr2  
 Asp 7 = Hp2/Vr2

Pin [N+1]

Asp 0 = (R) Hp1/Vr0  
 Asp 1 = (R) Hp2/Vr0

Pin [N+1]

Asp 0 = (R) Hp1/Vr0  
 Asp 1 = (R) Hp2/Vr0

Pin [N+1]

Asp 0 = (R) Hp1/Vr0  
 Asp 1 = (R) Hp2/Vr0

Pin [N+2]

Asp 0 = (R) Hp1/Vr1  
 Asp 1 = (R) Hp2/Vr1

Pin [N+2]

Asp 0 = (R) Hp1/Vr1  
 Asp 1 = (R) Hp2/Vr1

Pin [N+2]

Asp 0 = -  
 Asp 1 = -

Pin [N+3]

Asp 0 = (R) Hp1/Vr2  
 Asp 1 = (R) Hp2/Vr2

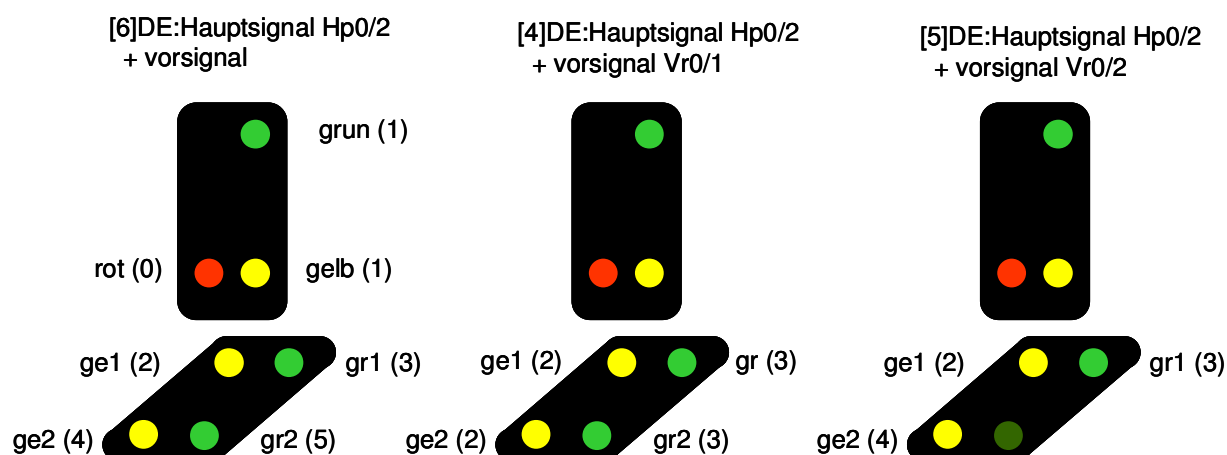
Pin [N+3]

Asp 0 = -  
 Asp 1 = -

Pin [N+3]

Asp 0 = (R) Hp1/Vr2  
 Asp 1 = (R) Hp2/Vr2

## 6 Main Signal Hp0/2 with Distant Signal



Note: On the left you find the standard version of the signal with the most comprehensive control capabilities, on the right you will find variations with less connections and less capabilities at which only the differences with the standard version are mentioned. Lamps shown in the standard version and variations are connected to the same outputs.

Pin [N+0]

Asp 0 = Hp0  
 Asp 1 = -  
 Asp 2 = -  
 Asp 3 = Hp2/Vr0  
 Asp 4 = -  
 Asp 5 = Hp2/Vr1  
 Asp 6 = -  
 Asp 7 = Hp2/Vr2

Pin [N+0]

Asp 0 = Hp0  
 Asp 1 = -  
 Asp 2 = -  
 Asp 3 = Hp2/Vr0  
 Asp 4 = -  
 Asp 5 = Hp2/Vr1  
 Asp 6 = -  
 Asp 7 = -

Pin [N+0]

Asp 0 = Hp0  
 Asp 1 = -  
 Asp 2 = -  
 Asp 3 = Hp2/Vr0  
 Asp 4 = -  
 Asp 5 = -  
 Asp 6 = -  
 Asp 7 = Hp2/Vr2

Pin [N+1]

Asp 0 = -  
 Asp 1 = (R) Hp2/Vr0

Pin [N+1]

Asp 0 = -  
 Asp 1 = (R) Hp2/Vr0

Pin [N+1]

Asp 0 = -  
 Asp 1 = (R) Hp2/Vr0

Pin [N+2]

Asp 0 = -  
 Asp 1 = (R) Hp2/Vr1

Pin [N+2]

Asp 0 = -  
 Asp 1 = (R) Hp2/Vr1

Pin [N+2]

Asp 0 = -  
 Asp 1 = -

Pin [N+3]

Asp 0 = -  
 Asp 1 = (R) Hp2/Vr2

Pin [N+3]

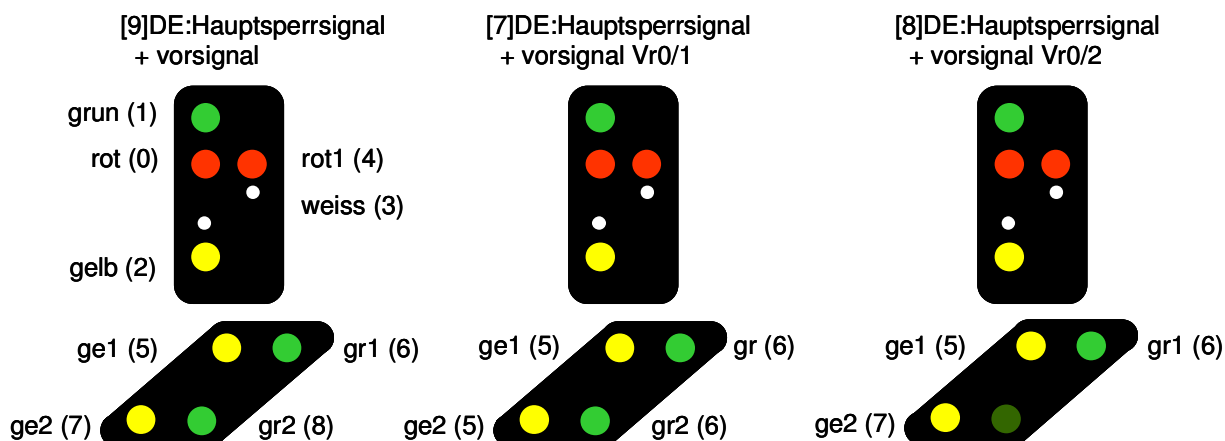
Asp 0 = -  
 Asp 1 = -

Pin [N+3]

Asp 0 = -  
 Asp 1 = (R) Hp2/Vr2



## 7 Main-blocking Signal with Distant Signal



Note: On the left you find the standard version of the signal with the most comprehensive control capabilities, on the right you will find variations with less connections and less capabilities at which only the differences with the standard version are mentioned. Lamps shown in the standard version and variations are connected to the same outputs.

Pin [N+0]

- Asp 0 = Hp00
- Asp 1 = Sh1
- Asp 2 = Hp1/Vr0
- Asp 3 = Hp2/Vr0
- Asp 4 = Hp1/Vr1
- Asp 5 = Hp2/Vr1
- Asp 6 = Hp1/Vr2
- Asp 7 = Hp2/Vr2

Pin [N+0]

- Asp 0 = Hp00
- Asp 1 = Sh1
- Asp 2 = Hp1/Vr0
- Asp 3 = Hp2/Vr0
- Asp 4 = Hp1/Vr1
- Asp 5 = Hp2/Vr1
- Asp 6 = -
- Asp 7 = -

Pin [N+0]

- Asp 0 = Hp00
- Asp 1 = Sh1
- Asp 2 = Hp1/Vr0
- Asp 3 = Hp2/Vr0
- Asp 4 = -
- Asp 5 = -
- Asp 6 = Hp1/Vr2
- Asp 7 = Hp2/Vr2

Pin [N+1]

- Asp 0 = (R) Hp1/Vr0
- Asp 1 = (R) Hp2/Vr0

Pin [N+1]

- Asp 0 = (R) Hp1/Vr0
- Asp 1 = (R) Hp2/Vr0

Pin [N+1]

- Asp 0 = (R) Hp1/Vr0
- Asp 1 = (R) Hp2/Vr0

Pin [N+2]

- Asp 0 = (R) Hp1/Vr1
- Asp 1 = (R) Hp2/Vr1

Pin [N+2]

- Asp 0 = (R) Hp1/Vr1
- Asp 1 = (R) Hp2/Vr1

Pin [N+2]

- Asp 0 = -
- Asp 1 = -

Pin [N+3]

- Asp 0 = (R) Hp1/Vr2
- Asp 1 = (R) Hp2/Vr2

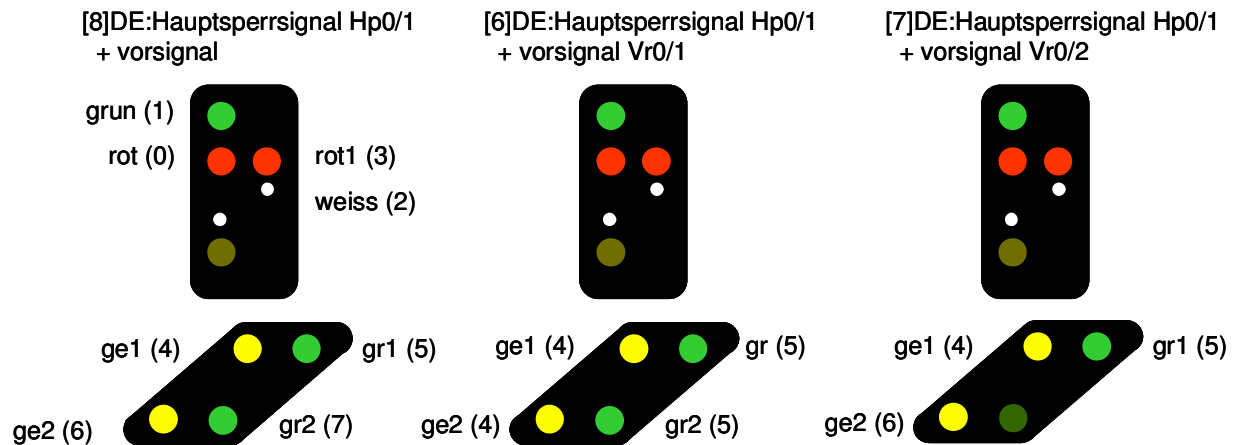
Pin [N+3]

- Asp 0 = -
- Asp 1 = -

Pin [N+3]

- Asp 0 = (R) Hp1/Vr2
- Asp 1 = (R) Hp2/Vr2

## 8 Main-blocking Signal Hp0/1 with Distant Signal



Note: On the left you find the standard version of the signal with the most comprehensive control capabilities, on the right you will find variations with less connections and less capabilities at which only the differences with the standard version are mentioned. Lamps shown in the standard version and variations are connected to the same outputs.

Pin [N+0]

Asp 0 = Hp00  
Asp 1 = Sh1  
Asp 2 = Hp1/Vr0  
Asp 3 = -  
Asp 4 = Hp1/Vr1  
Asp 5 = -  
Asp 6 = Hp1/Vr2  
Asp 7 = -

Pin [N+0]

Asp 0 = Hp00  
Asp 1 = Sh1  
Asp 2 = Hp1/Vr0  
Asp 3 = -  
Asp 4 = Hp1/Vr1  
Asp 5 = -  
Asp 6 = -  
Asp 7 = -

Pin [N+0]

Asp 0 = Hp00  
Asp 1 = Sh1  
Asp 2 = Hp1/Vr0  
Asp 3 = -  
Asp 4 = -  
Asp 5 = -  
Asp 6 = Hp1/Vr2  
Asp 7 = -

Pin [N+1]

Asp 0 = (R) Hp1/Vr0  
Asp 1 = -

Pin [N+1]

Asp 0 = (R) Hp1/Vr0  
Asp 1 = -

Pin [N+1]

Asp 0 = (R) Hp1/Vr0  
Asp 1 = -

Pin [N+2]

Asp 0 = (R) Hp1/Vr1  
Asp 1 = -

Pin [N+2]

Asp 0 = (R) Hp1/Vr1  
Asp 1 = -

Pin [N+2]

Asp 0 = -  
Asp 1 = -

Pin [N+3]

Asp 0 = (R) Hp1/Vr2  
Asp 1 = -

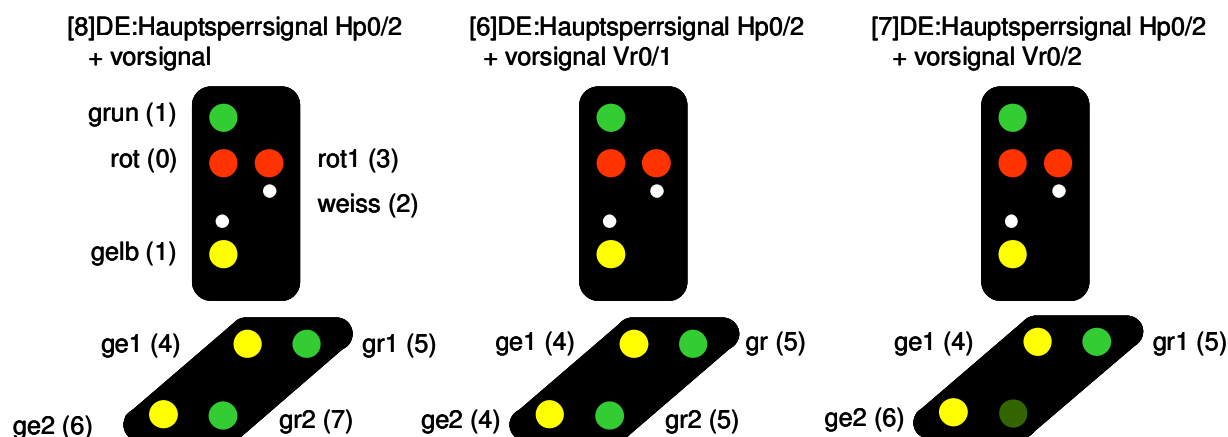
Pin [N+3]

Asp 0 = -  
Asp 1 = -

Pin [N+3]

Asp 0 = (R) Hp1/Vr2  
Asp 1 = -

## 9 Main-blocking Signal Hp0/2 with Distant Signal



Note: On the left you find the standard version of the signal with the most comprehensive control capabilities, on the right you will find variations with less connections and less capabilities at which only the differences with the standard version are mentioned. Lamps shown in the standard version and variations are connected to the same outputs.

Pin [N+0]

Asp 0 = Hp00  
Asp 1 = Sh1  
Asp 2 = -  
Asp 3 = Hp2/Vr0  
Asp 4 = -  
Asp 5 = Hp2/Vr1  
Asp 6 = -  
Asp 7 = Hp2/Vr2

Pin [N+0]

Asp 0 = Hp00  
Asp 1 = Sh1  
Asp 2 = -  
Asp 3 = Hp2/Vr0  
Asp 4 = -  
Asp 5 = Hp2/Vr1  
Asp 6 = -  
Asp 7 = -

Pin [N+0]

Asp 0 = Hp00  
Asp 1 = Sh1  
Asp 2 = -  
Asp 3 = Hp2/Vr0  
Asp 4 = -  
Asp 5 = -  
Asp 6 = -  
Asp 7 = Hp2/Vr2

Pin [N+1]

Asp 0 = -  
Asp 1 = (R) Hp2/Vr0

Pin [N+1]

Asp 0 = -  
Asp 1 = (R) Hp2/Vr0

Pin [N+1]

Asp 0 = -  
Asp 1 = (R) Hp2/Vr0

Pin [N+2]

Asp 0 = -  
Asp 1 = (R) Hp2/Vr1

Pin [N+2]

Asp 0 = -  
Asp 1 = (R) Hp2/Vr1

Pin [N+2]

Asp 0 = -  
Asp 1 = -

Pin [N+3]

Asp 0 = -  
Asp 1 = (R) Hp2/Vr2

Pin [N+3]

Asp 0 = -  
Asp 1 = -

Pin [N+3]

Asp 0 = -  
Asp 1 = (R) Hp2/Vr2

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