# Optical nodes

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- electronic setting of all parameters
- AGC based on optical input level
- plug-in return path optical transmitter with integrated data transmitter for remote monitoring subsystem “MasterWatch“, **page 130**
- digital indication of optical input level and other parameters on built-in LED display
- possibility to control node parameters by HMS transponder


## Technical specifications

| TYPE | | OD200 | OD200P |
|---|---|---|---|
| **Ordering number** | | 02816 | 02817 |
| **Optical wavelenght** | | 1100-1600 nm | |
| **Optical input level (AGC range)** | | -7... 2 dBm | |
| **Optical return loss** | | > 45 dB | |
| **Noise current density** | | max. 8.0 pA/√Hz | |
| **Frequency range*** | | 47/75/87-862 MHz | |
| **Return path*** | | 5-30/55/65 MHz | |
| **Impedance** | | 75 Ω | |
| **Return loss** | | ≥ 18 dB at 40 MHz-1.5 dB/oct | |
| **Frequency response** | | ± 0.75 dB | |
| **Output level (AGC controlled, 4.9% OMI)** | | 114 dBμV | |
| **Output level CTB (EN50083-3)**** | | 112 dBμV (42 ch.) | |
| **Output level CSO (EN50083-3)**** | | 113 dBμV (42 ch.) | |
| **Interstage attenuator** pr. | | 0-10 dB by 0.5 dB step | |
| **Interstage equalizer** pr. | | 0-10 dB by 0.5 dB step | |
| **Return path attenuator** pr. | | 0-25 dB by 1 dB step | |
| **Return path ingress switch** pr. | | 0/-6/<-50 dB | |
| **Reverse loss (from output to reverse transmitter)** | | max. 6.0 dB | |
| **Mains voltage, 50/60 Hz** | | 24-65 V~ | 187-250 V~ |
| **Power consumption, max.** | | 26 W | 23 W |
| **Current consumption** | 24 V AC | 1.7 A | - |
| | 42 V AC | 0.95 A | - |
| | 65 V AC | 0.6 A | - |
| **Maximal AC pass current** | | 7 A | |
| **Loss in internal output test point** | | -20 ± 0.5 dB | |
| **Loss in internal reverse path test point** | | -20 ± 0.5 dB | |
| **Return path signal injection point** | **loss** | - 30 dB | |
| | **frequency range** | 5-200 MHz | |
| **Optical connectors** | | SC/APC | |
| **Output connectors** | | PG11 | |
| **Test point connectors** | | F | |
| **Hum modulation distance (7 A)** | | min. 65 dB | |
| **Enclosure category** | | IP 64 | |
| **Operating temperature range** | | -20° ÷ + 50° C | |
| **Dimensions/Weight (packed)** | | 229x159x120 mm (main body); 269x159x120 mm (with fixing ears)/3.2 kg | |

* frequency range depends on inserted plug-in diplexer
** output level (CTB, CSO) is measured with 6 dB interstage equalizer

pr. software control

**Remotely monitored parameters using monitoring subsystem “MasterWatch“:**
- internal DC powering voltages
- current consumption
- temperature
- input optical level
- AC remote powering voltage
- status of external access sensor
- bias current of laser diode

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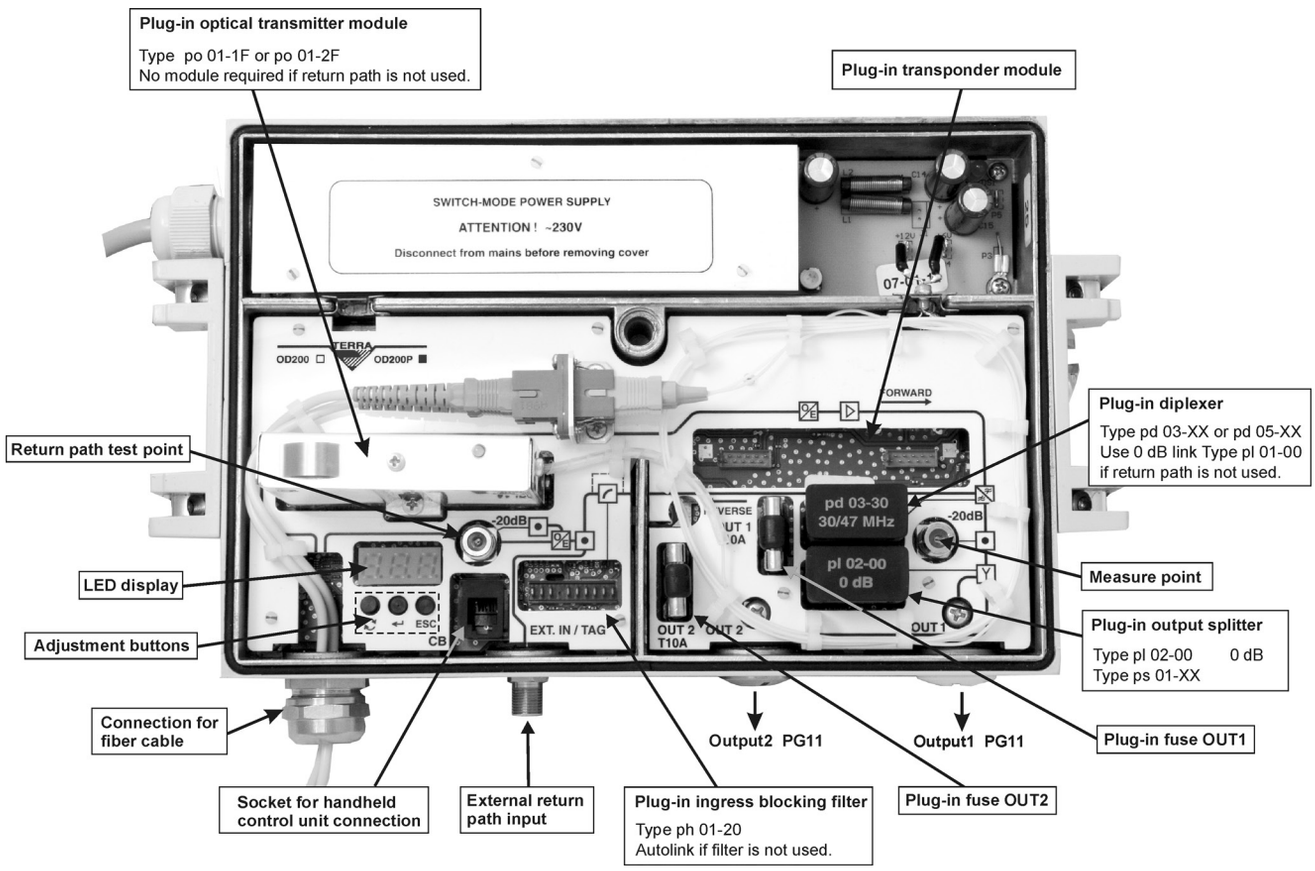
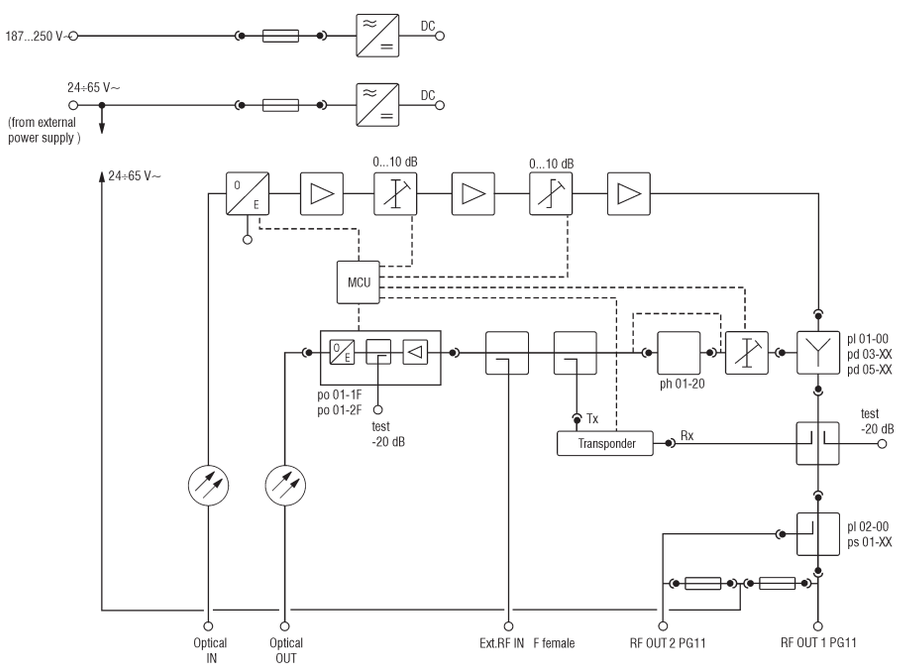



## Structure diagram




## Ordering notes

| | | |
|---|---|---|
| **Band** | no return path | pl 01-00 |
| | 30/47 MHz | pd 05-30 |
| | 55/75 MHz | pd 05-55 |
| | 65/87 MHz | pd 05-65 |
| | 85/108 | pd 05-85 |
| **Output** | 0 dB output1/no output 2 | pl 02-00 |
| | 3.5 dB output1/3.5 dB output 2 | ps 01-03 |
| | 2.0 dB output1/6.0 dB output 2 | ps 01-06 |
| | 1.5 dB output1/10 dB output 2 | ps 01-10 |
| | 1.0 dB output1/14 dB output 2 | ps 01-14 |
| | 0.5 dB output1/18 dB output 2 | ps 01-18 |
| **Return path** | 1 mW Tx | po 01-1F |
| | 2 mW Tx | po 01-2F |
| | 20 MHz RP band | ph 01-20 |