

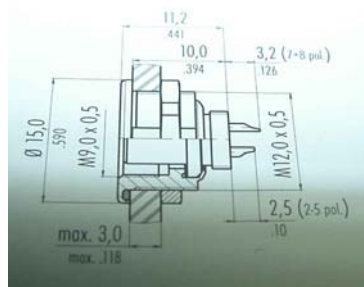
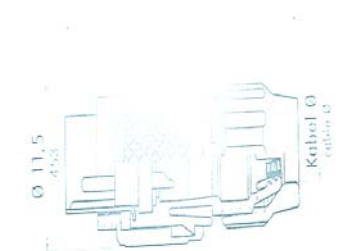
Langenbrettach/Germany, January 5th 2002

Hello,

I decided to optimize the wiring around my N5 and I am using a system called „Miniatur-Rundsteckverbinder“ from a local company „Firma Binder (www.binder-connector.de)“ in Neckarsulm/Germany. More precisely I am using their series "712" connectors which supports protection class IP67 (protected against dust and can be plunged temporarily under water). The connector has 3 pins, polarity cannot be mixed up and it features a screw locking. The maximum voltage is 125 Volts, the maximum current per pin is 4 Amps. The male cable connector has a diameter of 11.5mm and a length of 35mm (while plugged in). The part number of this "712" series connector is "99-0405-00-03".

The dimensions of the corresponding female socket are shown in the subsequent pictures as well. I prefer the versions, which can be soldered instead of crimped. Part numbers are "09-0408-00-03" and "09-0408-90-03".

In case you want to save some money there is another series "711" from the same vendor "Binder". The good news is, that both series „711“ and „712“ are compatible. So you can actually mix them. Series „711“ however is not protected against dust and must not be plunged under water. Voltage and current ratings are identical though. The part number of the "711" series male cable connector is "99-0075-100-03". Please see some pictures below:



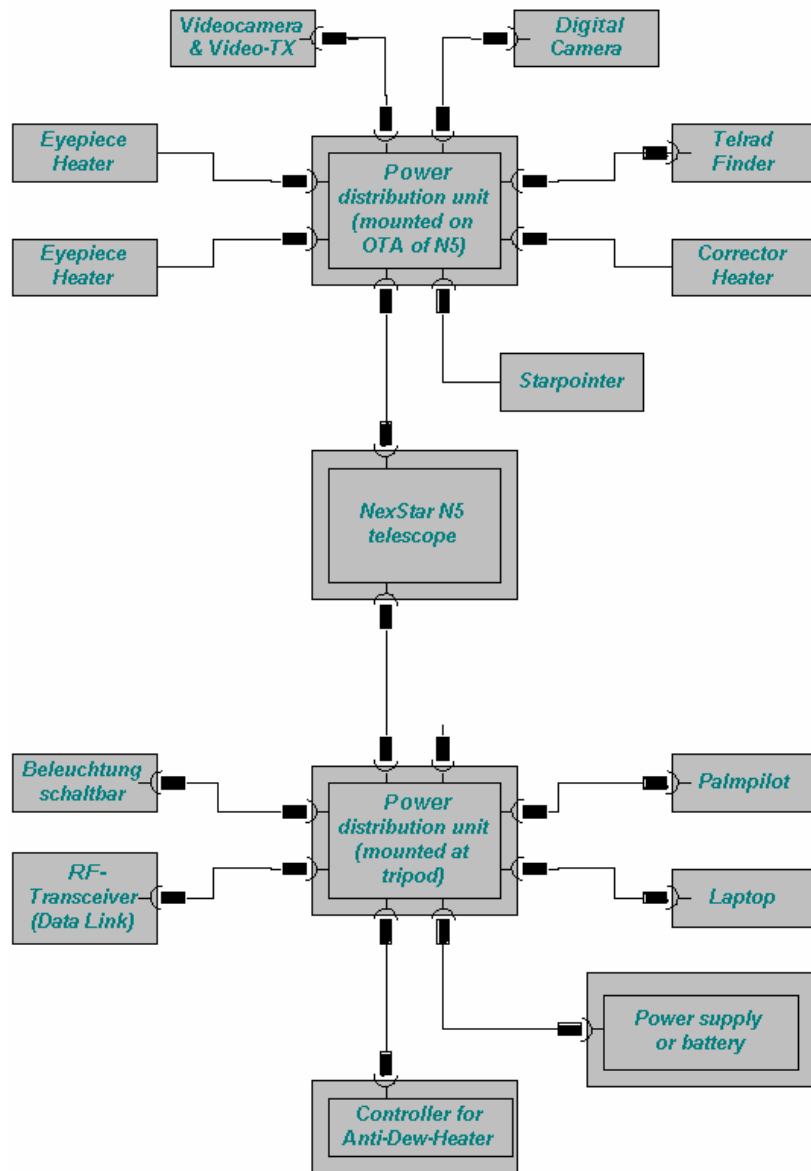
I built two power distribution units and attached one at my tripod and the other one on top of the OTA of my NexStar N5. The distribution units are comprised of 8 chassis sockets in a small black plastic casing. All 8 sockets are internally connected in parallel – so really nothing complicated. I use the 3 pins of the connectors as such: 1=12V continuous, 2=Ground, 3=12V pulsed. Thus I can power all kind of electrical accessories as digital camera, telrad finder a.s.f. with the continuous DC supply but also the various heaters for the corrector lens, the eyepieces, the telrad finder a.s.f. with a pulse width modulated supply voltage. This voltage is generated by a small control unit box. Various schematics of such units have been published in the astronomy groups. Of course the various accessories may need internal

supply voltage regulation if they cannot work directly from the 12V.

The little red LED in the power supply distribution unit flashes very dim according to clock and duty cycle of the heater and reminds the operator to save power (if possible)



The next schematic shows my complete wiring:



Enclosed please find some photographs of my N5 showing the new wiring and the modifications:



Front view of the controller for Anti-Dew Heater



Top view of N5 with telrad finder, power distribution unit and corrector heater strip attached



Front view of N5 with Ray's brackets and Baader's Witty adapter attached



I also modified my N5 by substituting the original power socket as well as adding another socket (at the side of the fork arm) which distributes the power to the accessories on the OTA. Both sockets are internally connected to each other as well as to the N5 electronics.



Side view of N5 with spiral cable from fork arm to power distribution unit on top of OTA

In the meantime I also equipped my NexStar N11GPS with the same kind of connector and power distribution system.

Kind regards

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