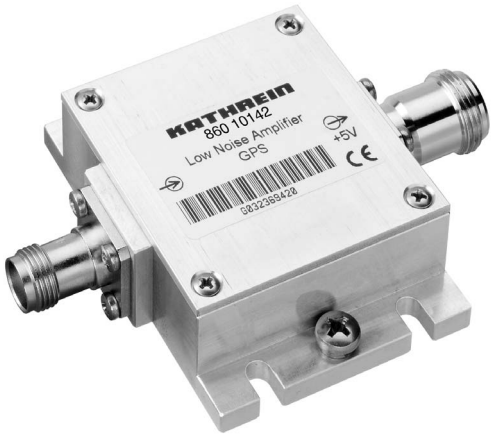
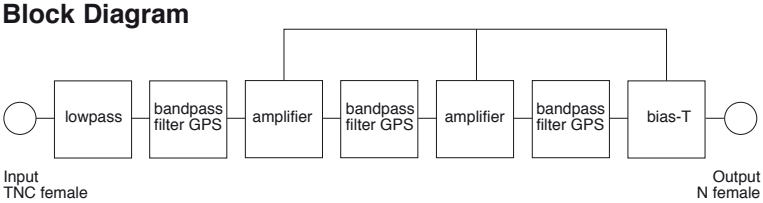
Low Noise Amplifier GPS
860 10142

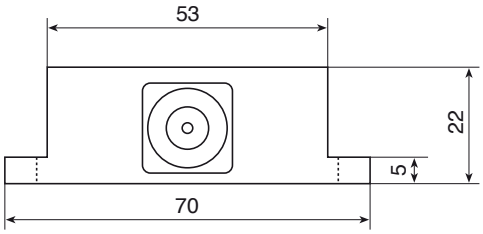
KATHREIN
Antennen · Electronic

– The low noise amplifier 860 10142 is designed for the use inside vehicles with train antennas with GPS.
– It includes a preselection filter to prevent the interference in case of simultaneous operation at the frequency range 380 – 960 / 1710 – 3800 MHz and GPS.
– The product fulfils the requirements according to EN 50155.

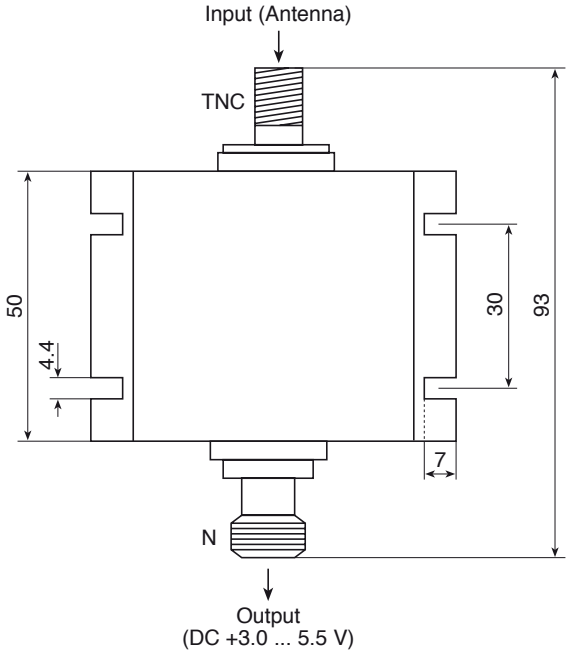


Block Diagram





Type No.	860 10142
Frequency	1575.42 MHz, L1-signal
Gain	25 ±2 dB
Noise figure	< 2.0 dB
VSWR (input, output)	< 1.8
Operation voltage	3.3 ... 5.5 V, ripple < 50 mV, supplied at inner conductor RF-output
Operation current	≤ 25 mA
Connector input	TNC female
Connector output	N female
Dimensions (w x h x l)	70 x 22 x 50 mm
Mounting	4 holes, 4.5 mm diameter



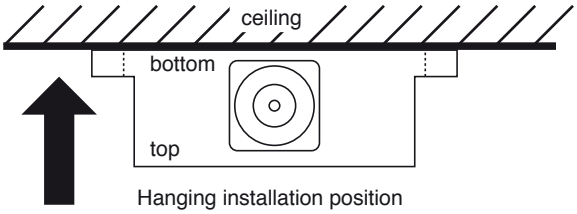
Additional features:

- The maximum input power at the input of the amplifier at the frequency range 380 – 960 MHz and 1710 – 3800 MHz is limited to +25 dBm.
- The noise level at the GPS-frequency generated by the operation at the frequency range 380 – 960 MHz and 1710 – 3800 MHz should not exceed the thermal noise level at the input of the GPS-amplifier, otherwise the noise figure will be increased.

Environmental conditions:

- Temperature range: –25 °C … +55 °C (data as specified)
  –40 °C … +85 °C (extended range) *)
- Protection class: IP 54 (DIN 40050 / IEC 144)
  (hanging installation position)

*) Extended range of operation:
Within an extended temperature range of –40 °C … +85 °C and an extended supplied voltage range of 3.0 V … 6.0 V operation is possible with the following restrictions:
Noise figure: < 2.5 dB
Gain: > 20 dB



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