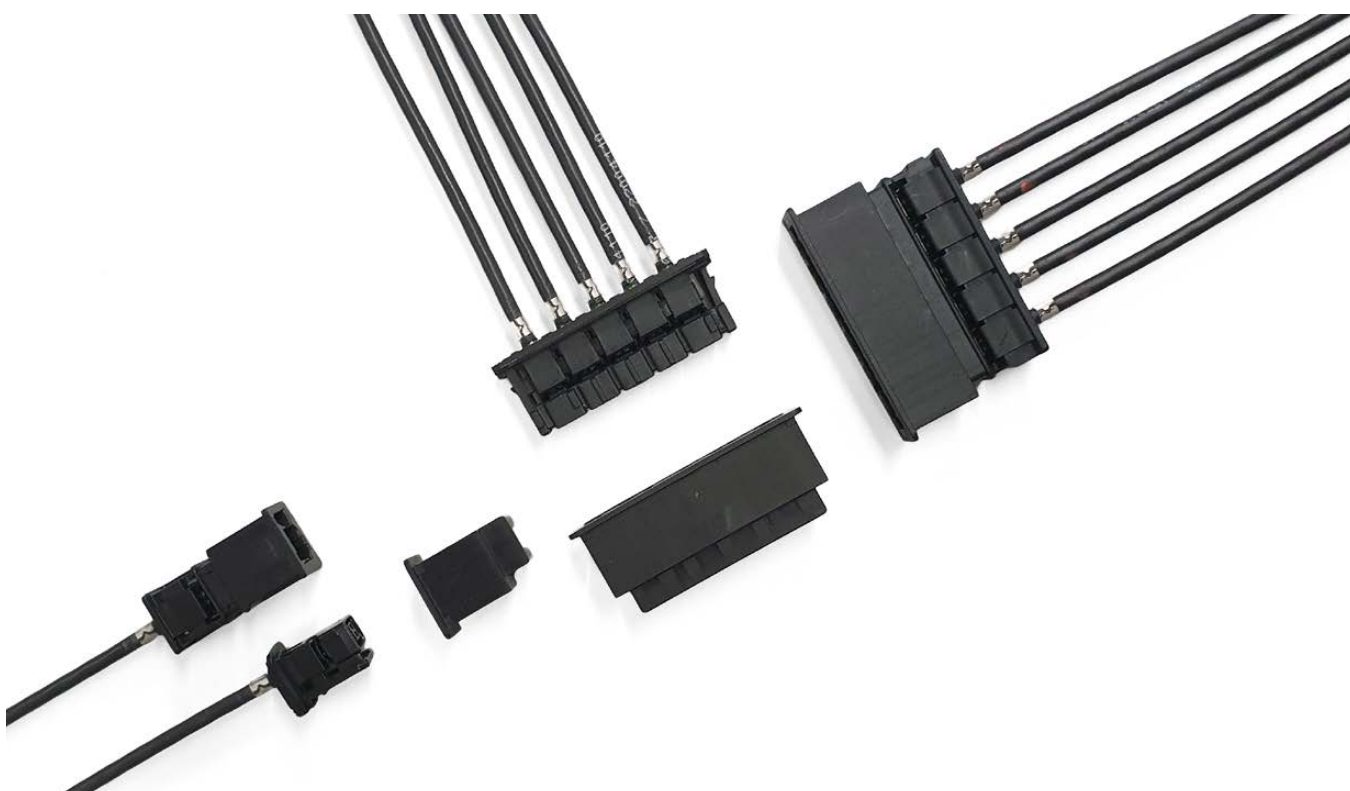


# RF DATA CONNECTORS

LNP™ THERMOCOMP™ COMPOUNDS



With advancements in telematics and automotive communications technology, RF communication systems have become integral components in today's automotive, trucking, watercraft, motorcycle, and off-road construction markets. Antenna, ADAS, GPS, Bluetooth, satellite radio, onboard Internet access, HD image and central control, remote diagnosis, 5G and autonomous driving will drive the rapid growth of the market of RF connectors.

LNP™ THERMOCOMP™ Z compounds with an affordable high heat resistance, good electrical properties (very low  $\epsilon_k$  /  $\epsilon_f$ ), excellent hydrolytic stability and the ability to use non-halogen FR packages, with excellent dimensional stability, good processability and low specific gravity.

## Why do our customers use these compounds in RF Data connectors?

### Inlet / Insulators:

#### LNP™ THERMOCOMP™ Z1C00XXP compound

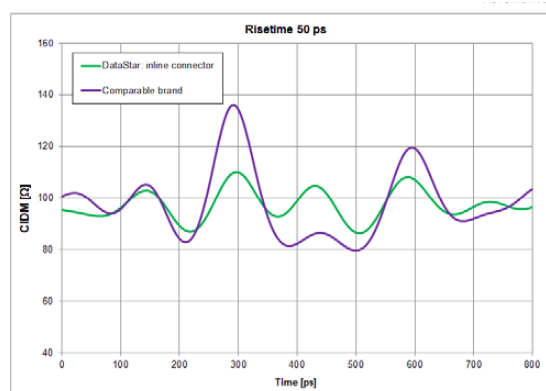
##### Features

- Stable and low di-electrical properties
  - Low relative permittivity (2,6 at 1MHz according to IEC 60250) and dissipation factor (0,001 at 1MHz according to IEC 60250)
  - Stable properties over a broad range of frequencies, temperatures and humidity levels
- Tight dimensions due to good dimensional stability
- Injection moldable

##### Benefits

Hirschmann Automotive GmbH has designed a range of connectors suitable for automotive Ethernet up to 1 Gbps, called DataStar.

Using these resins, Hirschmann was able to optimize the impedance significantly and therefore extend the frequency range far beyond 1 GHz while maintaining low losses. This results in a better performance, higher signal integrity and lower Bit Error Rate (BER) in the harsh environment of automotive applications.



### Connector housing:

#### LNP™ THERMOCOMP™ ZF006XXP compound

##### Features

- Ductility and hydrolytic stability
- Stable strength and dimensional stability with low moisture absorption
- Clear sound snap fitting
- Low creep under elevated ambient temperature
- UL94 V0 <1,5mm with non-halogenated FR
- Multi-color available

##### Benefits

- LNP™ THERMOCOMP™ Z compound might help to reduce or even eliminate crack issues
  - Improved ductility at low temperatures vs reinforced polyamide (PA)
  - Improved hydrolysis resistance vs polybutylene terephthalate (PBT)



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