Hirschmann Automotive DataStar

Connector system for the fast and robust data transmission

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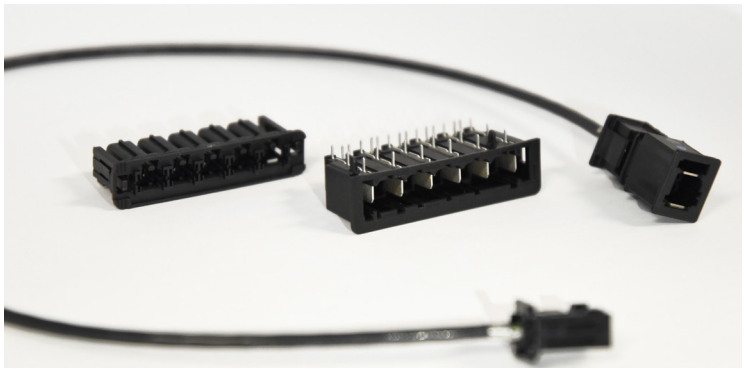
Connector system for automotive ethernet applications.

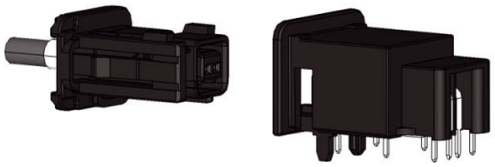
The number of electronic components in vehicles is constantly increasing rapidly and demands a higher bandwidth for the interconnection. The automotive ethernet is the ideal solution for this, as it provides the efficient design of “in-vehicle network architectures” of the future. Our Hirschmann Automotive DataStar portfolio acts as an interface for application areas ranging from 100 Mbps (100BASE-T1) to 1 Gbps (1000BASE-T1). The connector system ranges from open to watertight systems with different numbers of ports.

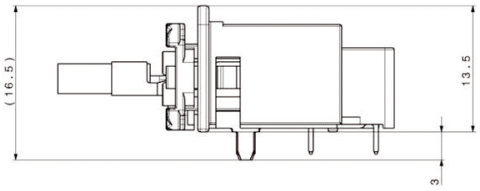
Characteristics:

- complient to OPEN Alliance:
  - 100BASE-T1 (100 Mbit/s – IEEE 802.3bw)
  - 1000BASE-T1 (1 Gbit/s – IEEE 802.3bp)
  - optimized impedance for better performance
- compatible with MATEnet connectors
- easy installation

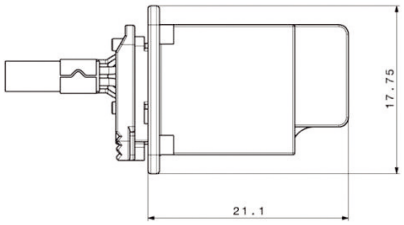


Key features	DataStar
Ports	1 Port / Multiport
Ambient temperature	–40°C to +105°C
Cable cross sections	2 × 0.13 to 0.17 mm²
Data cable	Unshielded twisted pair (UTP)
	Shielded twisted pair (STP)
Retention force of housing locking	> 120 N
Secondary locking	Activation force: > 50 N,
	no unintentional opening possible
Polarization/coding	Incorrect insertion force: min. 80 N
Approval test	LV 214





Electrical features	100 Mbit/s	1000 Mbit/s
Frequency range	66 MHz	600 MHz
Electrical impedance	100 Ω ± 10 Ω	100 Ω ± 5%
Insertion loss (IL)	≤ 0.075 dB	≤ 0.24 dB
Return loss (RL)	≥ 30.5 dB	≥ 20 dB
Common mode rejection (LCL/LCTL)	≥ 34 dB	≥ 45 dB



Contact system	NanoMQS
Contact surface	Sn, Ag
Line connection	Crimped
Number of connection cycles	Sn: 20 cycles; Ag: 50 cycles

MATEnet and NanoMQS are trademarks of TE Connectivity.

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