

19 inch format

Automotive run-in controller

L19708



- Interface connection and monitoring of electronic modules
- UUT (unit under test) communication via CAN
- up to 3 UUT's simultaneously
- Main application: Stress endurance run of automotive control units (ECUs)

The run-in controller from Löhnert Elektronik is designed to test electronic control units (ECUs) under simulated environmental conditions and has been developed specifically for the automotive sector. The run-in test identifies ECUs that are faulty due to being subject to high temperatures and load fluctuations over a prolonged period of time.

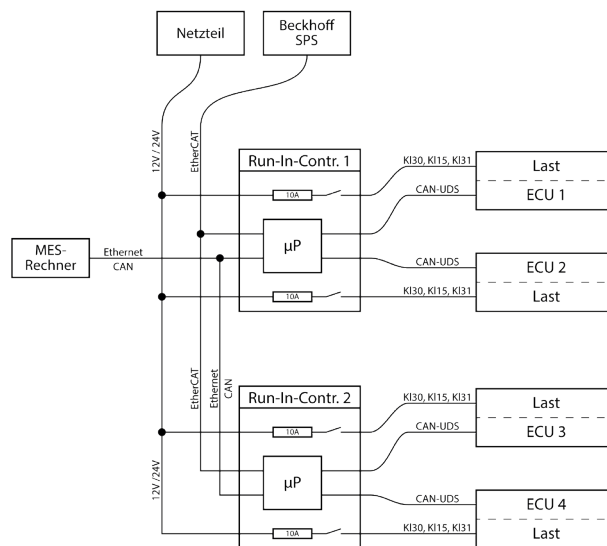
The run-in controller serves primarily as a communication interface: the ECU collects measurement results at reasonable intervals for later evaluation. The results are then read out by the run-in controller via the CAN bus and forwarded to the MES computer via the Ethernet interface. The EtherCAT interface serves as a control interface for the automated test sequence, enabling it to be freely definable and quickly changed if new requirements arise.

The communication interfaces described are standard configurations that can be easily adapted to customer requirements.

The run-in-controller also connects the mandatory terminals K130, K115 and K131 of the ECU. This is connected in real time to the current monitoring capability of the ECUs and a safety shutdown.

Example application

The example configuration shows three ECUs in simultaneous run-in operation. The power supply is provided by a common power supply unit that can also supply further units under test if necessary. The test sequence is automated using a Beckhoff controller. The test program is also specified by an MES computer, to which the measurement results are also transferred via the Ethernet interface.

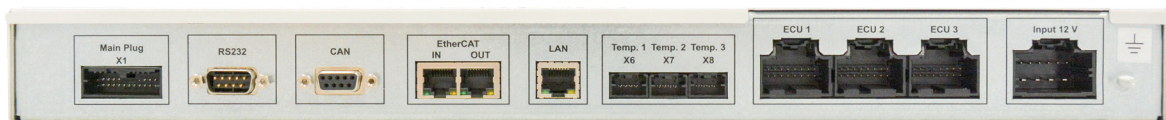


Features of the run-in controller:

- Simultaneous connection of three units under test (ECUs) each with up to 10 A load current
- Synchronous test sequence of the three ECUs
- Interface connection of automotive terminals KI30, KI15 and KI31
- Real-time power monitoring and safety shutdown
- ECU temperature measurement
- Communication with the units under test via a total of three CAN interfaces using the CAN-UDS protocol
- EtherCAT interface for the automated test sequence
- Specification of test parameters by host computer via Ethernet or CAN bus
- RS232 interface for fault diagnosis
- When changing types the test sequence (firmware) can be loaded via LAN or USB prior to the test
- LEDs as status display
- Galvanically isolated analogue output for specifying the voltage of an external power supply

Technical data

Interfaces:	2x RS232 1x CAN 1x Ethernet (IEEE 802.2) 1x EtherCAT Slave 1x USB Slave for flash function 3x PT100 connection
Unit under test interface	3x KI15, KI30, KI31 3x CAN FD
Digital outputs (optional):	24 V / max. 20 mA
Supply ECU:	Max. 10 A per unit under test
Voltage supply:	24 VDC
Current consumption:	400 mA
Format:	19 inch 1 u Depth approx. 250mm
Weight:	Approx. 0.255 kg
Storage temperature:	0°C to 60°C
Working temperature:	10°C to 50°C



Product information