



General

The HEIM DATaRec 4 ARR100 / ARP100 Modules are 24 channel ARINC 429 modules (ARR100 input; ARP100 output)
The modules can link together with additional HEIM DATaRec 4 Modules to a multi channel system via HeimLink.
In addition the ARR100 can operate as a standalone front-end (PC connection via USB 2.0 / 40 Mbit/s max. data rate¹⁾)
Each input / output channel is completely independent.
The HEIM DATaRec 4 represents leading edge technology.

ARR100

24 ARINC 429 input channels

Number of channels	24 high speed or low speed busses
Operation mode	record, no E to E mode
Input signal	ARINC 429
Signal level	ARINC 429 standard
Operation mode	bus monitor only bus test functions
Total bus recording	yes
Selected bus recording	yes
Bus speed identification	automatic
Bus load identification	bus load computed and displayed
Time stamping	time stamps for all messages, exact response time recording
Time resolution	100 ns
Power consumption	max. 10 watts
Power input range	17 – 28 V DC
Connector	62 Pin D-Sub male
Dimensions	standard HEIM DATaRec 4 housing 37.1 x 184 x 124.5 mm (w x h x d) including fixing system
Weight	780 g typical
Interfaces	high speed link interface and USB interface (40 Mbit/s max. data rate ¹⁾)
Display, button, LED	yes

Functions

Supported dataformat	each channel provides an independent IRIG 106 chapter 10 data stream
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ARP100

24 ARINC 429 output channels

Number of channels	24 high speed or low speed busses
Operation mode	replay
Output signal	ARINC 429 high speed or low speed bus
Signal level	ARINC 429 standard
Total bus replay	yes
Bus load identification	bus load computed and displayed
Time accuracy	200 ns
Power consumption	max. 17 watts depending of driven input numbers
Power input range	17 – 28 V DC
Connector	62 Pin D-Sub female
Dimensions	standard HEIM DATaRec 4 housing 37.1 x 184 x 124.5 mm (w x h x d) including fixing system
Weight	780 g typical
Communication	HeimLink
Display, button, LED	yes

Functions

Supported dataformat	each channel can replay an independent IRIG 106 chapter 10 data stream
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Technical Specification HEIM DATaRec 4 ARR100 / ARP100

Environmental specifications ARR100 / ARP100

Vibration	5 g
Shock	10 g
Temperature operational	IEC 60068-2-14-Nb
Standalone module	-20 °C - 70 °C -30 °C - 70 °C ²⁾
Link chain system	-10 °C - 55 °C -20 °C - 55 °C ²⁾
Storage	-40 °C - 85 °C
Humidity	0 - 93% relative, non-condensing
EMI	DIN EN61000 / DIN EN61326 ³⁾

Notes

Performance varies depending on the installation environment. The shown values were measured using an appropriately designed test system including the HEIM DATaRec 4 power supplies under nominal conditions of temperature, voltage, etc..

Performance is significantly influenced by storage medium type, host computer performance and load, used acquisition software, signal module configuration, power supplies and cabling.

- 1) under development
- 2) special start-up procedure required
- 3) for operation in industrial environment (according to DIN EN 61326) earthing of the module and / or shielded cable is necessary to prevent influences by external electromagnetic distortions.

Applications



Miniature system
Single module system with direct link to the PC via USB 2.0



Distributed data acquisition system
Remotely located modules (up to 768 channels)



Compact system
Centralized acquisition system with up to 768 channels



Distributed multi channel system
Remotely located groups of modules (up to 768 channels)



GSS base system, up to six internal Signal Modules



Decentralized system
Base system, module extender and external storage

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