



HIRSCHMANN

A **BELDEN** BRAND

Startup instructions

AutoConfiguration Adapter

ACA21-USB (EEC)

ACA22-USB (EEC)

ACA21-M12 (EEC)

ACA22-M12 (EEC)



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You can get the latest version of this manual on the Internet at the Hirschmann product site (www.hirschmann.com).

Printed in Germany
Hirschmann Automation and Control GmbH
Stuttgarter Str. 45-51
72654 Neckartenzlingen
Germany
Tel.: +49 1805 141538

Safety instructions

■ Intended usage

- Use the product solely for the application cases described in the Hirschmann product information, including this manual.
- Operate the product solely according to the technical specifications. See [“Technical Data” on page 6](#).
- Connect to the product solely components suitable for the requirements of the specific application case.

■ Operating voltage

- Operate the ACA21-.../ACA22-... storage medium with listed Hirschmann Industrial Ethernet host devices via their USB interface exclusively.

■ National and international safety regulations

Verify that the electrical installation meets local or nationally applicable safety regulations.

■ Relevant for North America:

- Operate the ACA21-.../ACA22-... storage medium with Hirschmann Class 2 Industrial Ethernet host devices.
Maximum ambient temperature: +158 °F (+70 °C)

■ CE marking

The labeled devices comply with the regulations contained in the following European directive(s):

2004/108/EC (EMC)

Directive of the European Parliament and the council for standardizing the regulations of member states with regard to electromagnetic compatibility.

2011/65/EU (RoHS)

Directive of the European Parliament and of the Council on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

In accordance with the above-named EU directive(s), the EU conformity declaration will be at the disposal of the relevant authorities at the following address:

Hirschmann Automation and Control GmbH
Stuttgarter Str. 45-51
72654 Neckartenzlingen
Germany
Tel.: +49 1805 141538

The product can be used in living areas (living area, place of business, small business) and in industrial areas.

▶ Interference immunity: EN 61000-6-2

▶ Emitted interference: EN 55022

You find more information on technical and industry standards here: [“Technical Data” on page 6.](#)

Warning! This is a class A device. This device can cause interference in living areas, and in this case the operator may be required to take appropriate measures.

Note: The assembly guidelines provided in these instructions must be strictly adhered to in order to observe the EMC threshold values.

Description

The ACA21-.../ACA22-... storage medium is for saving and updating configuration data and software of the Hirschmann Industrial Ethernet host devices.

For further information on the product characteristics, refer to:

See [“Technical Data” on page 6.](#)

Installation

- Plug the ACA21-.../ACA22-... storage medium into the USB port or M12 socket of the device.

Note: Note that upon restart, the host device—depending on its configuration—adopts the configuration saved on the ACA21-.../ACA22-... storage medium. The status of the storage medium in the graphical user interface or in the Command Line Interface tells you if the configuration on the ACA21-.../ACA22-... storage medium corresponds with the configuration on the host device.

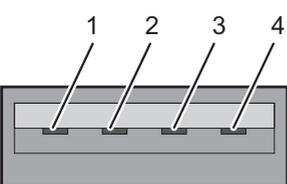
Figure	Pin	Function
	1	U _{in}
	2	- Data
	3	+ Data
	4	Ground (GND)

Table 1: Pin assignment of the USB interface

Figure	Pin	Function
	1	U_{in}
	2	—
	3	- Data
	4	Ground (GND)
	5	+ Data

Table 2: Pin assignment of the M12 plug

Operation

■ Transferring the current configuration data on the storage medium

You have the option of transferring the current configuration of your connected device via the graphical user interface or the Command Line Interface on the ACA21-.../ACA22-... storage medium and the flash memory of the host device simultaneously.

■ Transferring the configuration data from the storage medium

Upon restart, the host device adopts the configuration data saved on the ACA21-.../ACA22-... storage medium and saves them permanently in the flash memory.

■ Updating the software

For more information, refer to the “User Manual Basic Configuration” document.

Technical Data

General technical data		
Order numbers	ACA21-USB (EEC)	943 271-003
	ACA22-USB (EEC)	942 124-001
	ACA21-M12 (EEC)	943 913-003
	ACA22-M12 (EEC)	942 125-001
USB standard	USB 1.1	ACA21-USB (EEC)
		ACA21-M12 (EEC)
	USB 2.0	ACA22-USB (EEC)
		ACA22-M12 (EEC)
Storage capacity	64 MB	ACA21-USB (EEC)
		ACA21-M12 (EEC)
	512 MB	ACA22-USB (EEC)
		ACA22-M12 (EEC)
Connection type	USB plug	ACA21-USB (EEC)
		ACA22-USB (EEC)
	5-pin M12 plug, A-encoded	ACA21-M12 (EEC)
		ACA22-M12 (EEC)
Dimensions	ACA...USB...	3.66 in × 1.14 in × 0.59 in (93 mm × 29 mm × 15 mm)
	ACA...M12...	3.66 in × 1.14 in × 0.59 in (93 mm × 29 mm × 15 mm)
Weight	ACA...USB...	1.76 oz (50 g)
	ACA...M12...	2.47 oz (70 g)
Degree of protection	ACA...USB...	IP20
	ACA...M12...	IP67
Cable length	ACA...USB...	19.69 in (50 cm)
	ACA...M12...	19.69 in (50 cm)
Power supply	Maximum rated voltage DC	5.5 V
	Maximum current consumption	150 mA
	Class 2	
Ambient conditions		
Climatic conditions during operation	Ambient air temperature ^a .	-40 °F ... +158 °F (-40 °C ... +70 °C)
	Humidity	10 % ... 95 % (non-condensing)
	Air pressure	minimum 795 hPa (+9842 ft; +2000 m) maximum 1060 hPa (-1312 ft; -400 m)
Climatic conditions during storage	Ambient air temperature ^b .	-40 °F ... +185 °F (-40 °C ... +85 °C)
	Humidity	10 % ... 95 % (non-condensing)
	Air pressure	minimum 700 hPa (+9842 ft; +3000 m) maximum 1060 hPa (-1312 ft; -400 m)

- a. Temperature of the ambient air at a distance of 2 inches (5 cm) from the device
b. Temperature of the ambient air at a distance of 2 inches (5 cm) from the device

EMC and immunity		
Stability	Vibration IEC 60068-2-6, test Fc	8.4 Hz ... 200 Hz with 0.035 oz (1 g) 200 Hz ... 500 Hz with 0.053 oz (1.5 g)
	Shock IEC 60068-2-27, Test Ea	0.53 oz (15 g) at 11 ms
EMC interference emission	EN 55022	
EMC interference immunity	EN 61000-4-2	6 kV contact discharge 8 kV air discharge
	EN 61000-4-3	10 V/m

Underlying technical standards

The device has an approval based on a specific standard or de facto standard solely if the approval indicator appears on the housing.
If your device has a shipping approval according to Germanischer Lloyd, you find the approval mark printed on the device label. You will find out whether your device has other shipping approvals on the Hirschmann website under www.hirschmann.com in the product information.

EN 50121-4	Railway applications – EMC – Emission and immunity of the signalling and telecommunications apparatus (Rail Trackside)
EN 61131-2	Programmable controllers – Part 2: Equipment requirements and tests
FCC 47 CFR Part 15	Code of Federal Regulations
IEC/EN 61850-3	Communication networks and systems in substations – Part 3: General requirements
IEEE 1613	IEEE Standard Environmental and Testing Requirements for Communication Networking Devices in Electric Power Substations
NEMA TS 2	Traffic Controller Assemblies with NTCIP Requirements (environmental requirements)
UL 508	Safety for Industrial Control Equipment

Further support

■ Technical questions

For technical questions, please contact any Hirschmann dealer in your area or Hirschmann directly.

You find the addresses of our partners on the Internet at

<http://www.hirschmann.com>

Contact our support at

<https://hirschmann-support.belden.eu.com>

Contact us

in the EMEA region at

▶ Tel.: +49 (0)1805 14-1538

▶ E-mail: hac.support@belden.com

in the America region at

▶ Tel.: +1 (717) 217-2270

▶ E-mail: inet-support.us@belden.com

in the Asia-Pacific region at

▶ Tel.: +65 6854 9860

▶ E-mail: inet-ap@belden.com

■ Hirschmann Competence Center

The Hirschmann Competence Center is ahead of its competitors on three counts with its complete range of innovative services:

▶ Consulting incorporates comprehensive technical advice, from system evaluation through network planning to project planning.

▶ Training offers you an introduction to the basics, product briefing and user training with certification.

You find the training courses on technology and products currently available at <http://www.hicomcenter.com>

▶ Support ranges from the first installation through the standby service to maintenance concepts.

With the Hirschmann Competence Center, you have decided against making any compromises. Our client-customized package leaves you free to choose the service components you want to use.

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