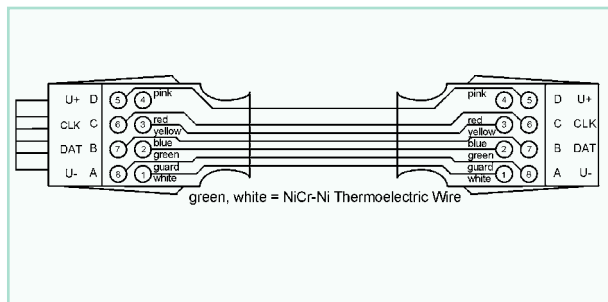


GENERAL ACCESSORIES

Extension Cable for NiCr-Ni Sensors



Extensions up to 4 meters

Passive extension cables ZA9020VK (NiCr-Ni)

Passive 8-pin extension cables with ALMEMO® connectors are available in lengths 1, 2, and 4 meters; for NiCr-Ni thermocouples special extension cables with an integrated compensation line are available (ZA 9020 VK1/2/4).

The cable length between sensor connector and measuring instrument must not exceed four (4) meters; if this maximum length is exceeded, communications with the connector EEPROM may be adversely affected.

- + The total length of all passive extension cables connected to an ALMEMO® measuring instrument must not exceed four (4) meters. If the total length exceeds this, the device's internal data bus may, depending on environmental conditions, be subject to interference.

Extensions, 5 meters and longer

Longer sensor lines

If distances exceeding this really are necessary, then - instead of extension cables - longer sensor lines should be used.

For this purpose the sensor connector must be detached, the sensor cable extended in the conventional way with a compensation line, and the connector then refitted to the end.

Active extension cables ZA9020VKP (NiCr-Ni)

If for some reason it is not possible to extend the sensor cable itself, an active extension cable ZA9020VKP (NiCr-Ni) can be used.

This cable incorporates an ALMEMO® connector with an integrated EEPROM for data storage; this connector is a copy of the sensor connector. A compensation line is used for the extension.

The terminals in the connectors are also made from thermo material.

If correction values or other sensor-specific settings have been programmed in the sensor connector (e.g. comments, average values, etc.), these must also be programmed (being a copy) in the ALMEMO® connector on the extension cable.

The active extension cable is then sensor-specific.

Types :

Extension cable, from NiCr-Ni compensation line

- 1 meter long (passive)
- 2 meters long (passive)
- 4 meters long (passive)
- 10 meters long (active, with EEPROM, sensor-specific)

Order no. ZA9020VK1

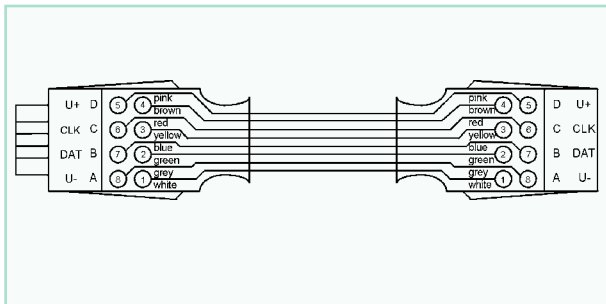
Order no. ZA9020VK2

Order no. ZA9020VK4

Order no. ZA9020VKP10

Extension cable for all other measuring probes (except thermocouples)

new!



Extensions up to 4 meters

Passive extension cables ZA9060VK

Passive 8-pin extension cables with ALMEMO® connectors are available in lengths of 1, 2, and 4 meters (ZA 9060 VK1/2/4); these are suitable for all sensors (except thermocouples).

The cable length between sensor connector and measuring instrument must not exceed four (4) meters; if this maximum length is exceeded, communications with the connector EEPROM may be adversely affected.

- + The total length of all passive extension cables connected to an ALMEMO® measuring instrument must not exceed four (4) meters. If the total length exceeds this, the device's internal data bus may, depending on environmental conditions, be subject to interference.

Extensions, 5 meters and longer

Longer sensor lines

If distances exceeding this really are necessary, then - instead of extension cables - longer sensor lines should be used. For this purpose the sensor connector must be detached, the sensor cable extended in the conventional way, and the connector then refitted to the end.

New

Intelligent extension cable ZA 9090 VKC with RS485 from 5 meters and above

If the sensor cable cannot be extended as such, it is still possible to use new intelligent extension cable(s) ZA9060-VKC with microcontroller for up to 100 meters. Two microcontrollers transmit EEPROM data from the sensor connector and measured data from digital sensors (DIGI) in both directions via RS485 and make this interference-resistant data available for the measuring instrument. Sensors can thus be freely interchanged as and when necessary (e.g. calibrated sensors with correction values, multi-point calibration or special linearization (ZAxxxSS)).

- + These intelligent extension cables cannot be used for thermocouples or for sensors with a frequency / pulse output (e.g. turbines / rotating vanes FVA915, frequency / pulse / rotational speed ZA 9909 AKx / FUA 9192, DC measuring modules ZA 99xx AB).
- + When using extension cable(s) operation in sleep mode is not possible.

Types :

Extension cable for all other sensors (max. 5 meters passive)

- 1 meter long (passive)
- 2 meters long (passive)
- 4 meters long (passive)

New

- 5 meters long (intelligent, with microcontroller, not sensor-specific)
- 10 meters long (intelligent, with microcontroller, not sensor-specific)
- 20 meters long (intelligent, with microcontroller, not sensor-specific)
- 30 meters long (intelligent, with microcontroller, not sensor-specific)
- 50 meters long (intelligent, with microcontroller, not sensor-specific)
- 100 meters long (intelligent, with microcontroller, not sensor-specific)

Order no. ZA9060VK1
Order no. ZA9060VK2
Order no. ZA9060VK4

Order no. ZA9090VKC5
Order no. ZA9090VKC10
Order no. ZA9090VKC20
Order no. ZA9090VKC30
Order no. ZA9090VKC50
Order no. ZA9090VKC100

01/2011 We reserve the right to make technical changes.

GENERAL ACCESSORIES

GPS mouse for determining position

new!



Variants

Fix for current location via GPS
Measuring channels for latitude and longitude

GPS mouse with cable and ALMEMO® connector

Order no. ZAD919GPS

Thermo Add-On Printer



Technical Data:

Print mechanism:	matrix, 7 x 9 dots
Interface:	RS232C 9-pin DSUB
Power supply:	integrated rechargeable battery/mains adapter
Power supply adapter:	6.5 V / 2 A
Characters:	40 / 80 characters per line
Paper:	temperature sensitive paper (UV-protected storage required), 112mm wide, roll: Ø 38mm
Operating temperature:	0° to 40°C
Dimensions:	H 66,5 x W 170 x D 160mm
Weight:	printer appr. 1kg mains adpter appr. 1kg

Accessories (for re-ordering):

Printer data cable	Order no. ZA1981DK
Roll temperature sensitive paper	Order no. ZK1080TP

Extent of the delivery:

Thermo printer including
Mains adapter, printer data cable,
2 rolls of temperature sensitive paper

Order no. DK2081

Stand



Types:

Large tripod stand
for complex, mobile
measurement setups

Order no. ZX9000ST3

GENERAL ACCESSORIES

07

Accessories for measuring instruments
ALMEMO® 2450, 2490, 2590
and output interface ZA 8006 RTA

01/2011 We reserve the right to make technical changes.



Rubber safety holster, green
Rubber safety holster, gray
including carry strap

Order no. ZB2490GS1

Order no. ZB2490GS2



Top hat rail mounting
1 battery compartment cap with top hat rail holder fitted,
including top hat

Order no. ZB2490HS



Magnetic fastening
2 pot magnets, including 2 screws
(for battery compartment cap)

Order no. ZB2490MH

Batteries and Rechargeable Batteries



Types:

9V battery (spare)

Order no. ZB2000B9

Charger, int. in connector
incl. 9V bat.

Order no. ZB2000LS

9V rechargeable battery

Order no. ZB2000A9

AA battery, 1.5 V

Order no. ZB2000B1

AA NiMH rechargeable battery, 1.2 V, 1600 mA, coded
for charging in ALMEMO® unit
(e.g. ALMEMO® 2690-8)

Order no. ZB2000A1NM

AHLBORN
www.ahlborn.com

GENERAL ACCESSORIES

Mains Adapter



ZA 1312 NA8



ZA 1312 NA9



new!

Variants

Switching power supply / connector variant 90 to 260 VAC

12 VDC, 1 A DIN hollow connector

for ALMEMO® 2890-9, 6290-7B2 **Order no. ZB1112NA8**

12 VDC, 1 A ALMEMO® connector e.g. for hand-held devices
ALMEMO® 2450, 2490, 2590, 2690 **Order no. ZA1312NA8**

12 VDC, 1 A 3-pin bayonet coupling e.g.

for ALMEMO® 8590-9 **Order no. ZB1212NA8**

12 VDC, 2.5 A 3-pin bayonet coupling

e.g. for ALMEMO® 5690, 8690 **Order no. ZB1212NA9**

12 VDC, 1 A With free ends **Order no. ZB1012NA8**

12 VDC, 2.5 A With free ends **Order no. ZB1012NA9**

Accessories

Conversion connector for mains-powered devices

Euro-plug to US standard (flat-pin) **Order no. ZB1000UA**

DC Power Supply Cables



Types:

10 to 30VDC, electr. isol., with DIN hollow connector
for ALMEMO® 2390, 8490

Output: 12VDC/250mA (max.) **Order no. ZB2290UK**

10 to 30 V DC, electrically isolated, with DIN hollow connector
for ALMEMO® 2890-9, 6290-7B2

Output : 12V DC / 1 A (max.) **Order no. ZB2590UK**

10 to 30 V DC, electrically isolated, with ALMEMO® connector
for ALMEMO® 2450, 2490, 2590, 2690-8

Output: 12 V DC / 250 mA (max.) **Order no. ZA2690UK**

Output: 12 V DC / 1 A (max.) **Order no. ZA2690UK2**

10 to 30VDC, electr. isol., with bayonet coupling for
ALMEMO® 8590

Output: 12VDC/250mA (max.) **Order no. ZB3090UK**

10 to 30VDC, electr. isol., with bayonet coupling, for
ALMEMO® 5690-9, 8690

output: 12V DC / 1.25A (max.) **Order no. ZB3090UK2**

Adapter cable with
universal car connector

Order no. ZB1000AKU

New ALMEMO® power supply plug, 9 to 12 VDC, not electr.
isolated, with clamp connector for ALMEMO® DC socket on
hand-held devices ALMEMO® 2450, 2490, 2590, 2690

Programming 0.2 A **Order no. ZA1312FS1**

Programming 1 A **Order no. ZA1312FS8**

- Usage for car and electric fence batteries.
- For instruments that need to be supplied from the car battery.

Instrument Cases and Standby Bags



ZB2590TK2



ZB5600TK3



ZB2490TK



ZB2890TK



ZB2280LK



ZB5090RC

Types:

Carry cases (approx. dimensions in cm)

Carry case, large, aluminum profile frame / ABS (acrylonitrile butadiene styrene) - e.g. for ALMEMO® 2690 / 2890 hand-held devices, Inside dimensions 48 x 35 (WxD) x 6 (H) + 6 cm (removable insert)

Order no. ZB2590TK2

Carry case, universal, high, aluminum profile frame / ABS, e.g. for ALMEMO® 5690 measuring systems

Inside dimensions 48 x 25 (WxD) x 16 (H) + 10 cm

(removable insert)

Order no. ZB5600TK3

Instrument case for ALMEMO 2690 / 2890, inside dimensions (WxDxH) 38 x 28 x 7 (divided into compartments, see photograph)

Order no. ZB2890TK

Instrument case for ALMEMO 2450 / 2490 / 2590, inside dimensions (WxDxH) 38 x 28 x 7 (divided into compartments, see photograph)

Order no. ZB2490TK

Storage case (light-weight version), inside dimensions (WxDxH) 43 x 33 x 6 (divided into compartments, see photograph)

Order no. ZB2280LK

Rack case (approx. dimensions in cm)

Rack case with carrying handle, for ALMEMO® MA5690xxBT8 measuring systems, in 19-inch sub-rack, 84 DU, height 5 HU

Outside dimensions (WxDxH) 54 x 50 x 27, with integrated lockable rack draw, inside dimensions (WxDxH) 40 x 37 x 7 (for cables, accessories, or laptop)

Order no. ZB5090RC



ALMEMO® input connector also for existing sensors (see Chapter 03)

ALMEMO® output modules (analog, relay, trigger) (see Chapter 04)



ALMEMO® data connection, network technology, Bluetooth modules

Wireless and modem transmission (see Chapter 05).



Software for the presentation and evaluation of measuring data, including many notes, is described in section 6. The software 'AMR-Control' for measurement setup and convenient device handling, as well as the manual, are included with the delivery of all ALMEMO® devices with digital outputs.