

Z237

NBRN – RS controller service cable



Z237

Technical data

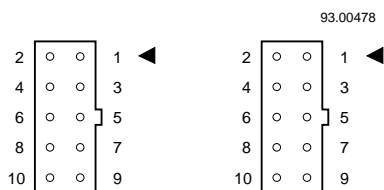
| | |
|------------|---|
| Cable: | |
| Type | Round / black, 6 x 0.5 mm ² , unshielded |
| Length | 2 m |
| Connectors | 10-pin ribbon cable connectors |

Brief description

The Z237 service cable is fitted with a 10-pin ribbon cable connector at both ends (NBRN and RS controller). At the RS controller end, the cable can be connected to the service socket of an RS controller (or an appropriate RS bus adapter).

The cable is also used for the connection between the NIPRO and the NAPC.

Pin connections



| Pin 10 | → | Pin 10' |
|--------|---|---------|
| 1 | → | 1 |
| 2 | → | 2 |
| 3 | | NC |
| 4 | | NC |
| 5 | → | 5 |
| 6 | → | 6 |
| 7 | | NC |
| 8 | | NC |
| 9 | → | 9 |
| 10 | → | 10 |

Accessories

Z257
Z259

Cables connecting PC – RS controller via RS232 for download to RS controllers



Types

| | |
|------|-------------------------------------|
| Z257 | PC-connector: 25-pin port connector |
| Z259 | PC-connector: 9-pin port connector |

Technical data

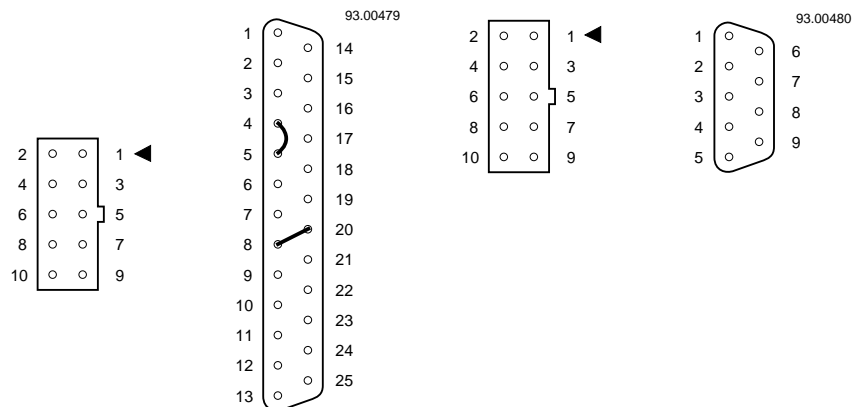
| | |
|-------------|---|
| Cable: | |
| Type | Round / black, 6 x 0.5 mm ² , unshielded |
| Length | 3 m |
| Connectors: | |
| PC-end | See <i>Types</i> above |
| RS-end | 10-pin ribbon cable connector |

Brief description

At the PC end, the Z257 has a 25-pin port connector and the Z259 a 9-pin port connector. The other end of either of these cables can be connected via the 10-pin ribbon cable connector to the service socket of the RS controller.

Pin connections

Z257 (with 25-pin PC connector) **Z259 (with 9-pin PC connector)**



| Pin 10 RS controller | → | Pin 25' PC | Pin 10 | → | Pin 9 |
|-------------------------|---|---------------|--------|---|-------|
| 8 | → | 2 | 8 | → | 3 |
| 7 | → | 3 | 7 | → | 2 |
| 3 | → | 7 | 3 | → | 5 |
| 4 | → | 7 | 4 | → | 5 |

4 / 5 wire link
8 / 20 wire link

Accessories

**Z273
Z274
Z275**

T1 sensor simulators

The T1 simulators can be used in place of NKDG, NKDW and NKIT terminal modules.



Z274

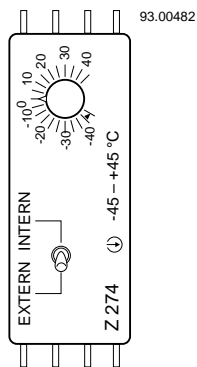
Types

| | | |
|------|--------------------|---------------|
| Z273 | T1 measuring range | 0 ... 40 °C |
| Z274 | T1 measuring range | -45 ... 45 °C |
| Z275 | T1 measuring range | 0 ... 150 °C |

Technical data

| | |
|------------------------|-------------------------|
| Measuring ranges | See <i>Types</i> above |
| Accuracy | ±5 % of measuring range |
| Dimensions (w x h x d) | 24 x 68 x 64 mm |
| Weight | Approx. 60 g |
| Ambient temperatures: | |
| Operation | 0 ... 50 °C |
| Transport and storage | -25 ... 70 °C |

Indication / Labelling



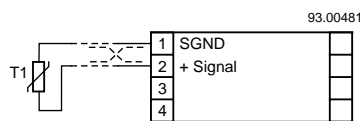
Rotary knob:

Potentiometer

Manual switch settings:

EXTERN NK.. function
INTERN Simulation

Terminal layout on module carrier



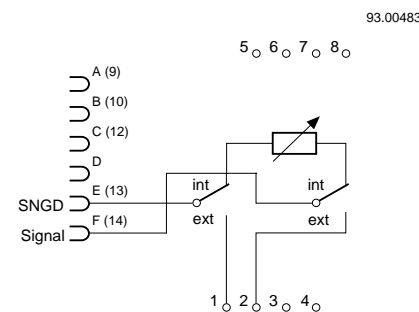
--x-- Interchangeable wires

Brief description

The Z273, Z274 and Z275 simulators are passive like T1 sensors and may be slotted into the terminal module carriers in place of the relevant terminal modules (NKDG, NKDW or NKIT).

By setting the manual switch appropriately, either the simulator (switch position: INTERN) or the installed sensor (switch position: EXTERN) can be connected to the RS controller. With the manual switch set to INTERN, the potentiometer can be used to select any value within the measuring range.

Block diagram



1 ... 4 Terminals

A ... F Connection to terminal module carrier

Accessories

Z276

Simulator for active sensors

The simulator can be used in place of the NKDG terminal module.

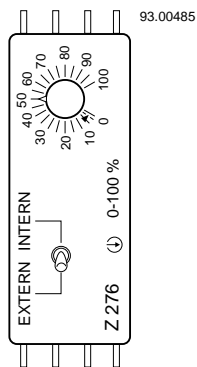
Caution

To a limited extent, the Z276 can be used in place of an NKIA or NKIAU terminal module, but must be set to INTERN only. Under no circumstances should the switch be set to EXTERN owing to the risk of damage caused by ground loops.



Z276

Indication / Labelling



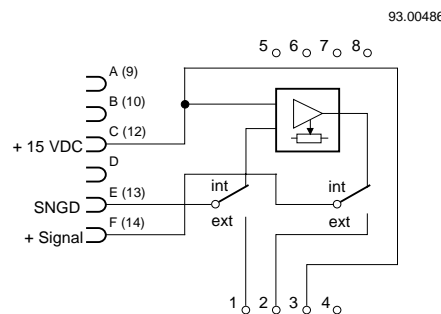
Technical data

| | |
|------------------------|---------------------------------------|
| Supply voltage | DC 15 V (10 mA intrinsic consumption) |
| Measuring range | DC 0 ... 10 V: 0 ... 100 % |
| Accuracy | ±5 % of measuring range |
| Dimensions (w x h x d) | 24 x 68 x 64 mm |
| Weight | Approx. 60 g |
| Ambient temperatures: | |
| Operation | 0 ... 50 °C |
| Transport and storage | -25 ... 70 °C |

Brief description

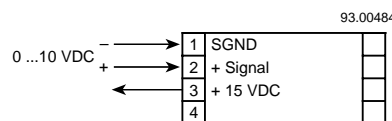
The Z276 simulator behaves like an active sensor and can be slotted into the terminal module carrier in place of the NKDG terminal module. By setting the manual switch appropriately, either the simulator (switch position: INTERN) or the installed sensor (switch position: EXTERN) can be connected to the RS module. With the manual switch set to INTERN, the potentiometer can be used to select any value within the measuring range.

Block diagram



1 ... 4 Connection terminals
A ... F Connection to terminal module carrier

Terminal layout on terminal module carrier



Accessories**Z277
Z278****Voltmeters**

The Z277 voltmeter is suitable for use with terminal module types NKDG, NKDW, NKIA and NKIAU; the Z278 is used with NKOA, NKOAH, NKOAL and NKOALH terminal modules.

**Z277****Types**

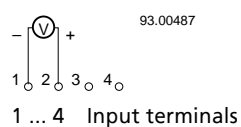
| | |
|------|---|
| Z277 | Measuring range DC 0 ... 10 V |
| Z278 | Measuring range DC 0 ... 20 V phase cut |

Technical data

| | |
|------------------------|--------------------------|
| Accuracy | ±10 % of measuring range |
| Dimensions (w x h x d) | 24 x 60 x 68 mm |
| Weight | Approx. 60 g |
| Ambient temperature: | |
| Operation | 0 ... 50 °C |
| Transport and storage | -25 ... 70 °C |

Brief description

The Z277 and Z278 voltmeters can be plugged into the relevant terminals of the terminal module carriers to measure direct voltages. The terminal modules do not need to be removed for this purpose.

Block diagram

Z332

T1 signal adjuster unit for INTEGRAL RSA and INTEGRAL RSC controllers



Z332

Technical data

| | |
|-----------------------|-----------------|
| Adjustment range | ±2.5 K |
| Dimensions | 13 x 30 x 16 mm |
| Weight | Approx. 30 g |
| Ambient temperature: | |
| Operation | 0 ... 50 °C |
| Transport and storage | -25 ... 70 °C |

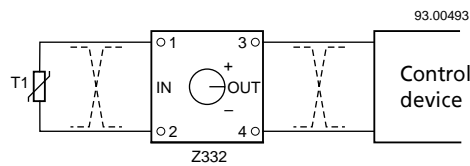
Note

The adjuster unit must not be used with an adjustable T1 measuring circuit (e.g. with the NKIT terminal module) as this can result in measuring errors.

Brief description

The Z332 adjuster unit consists of a passive network and can be connected into a T1 measuring circuit. It can be used to adjust the T1 signal by ±2.5 K.

Block diagram



---x--- Interchangeable wires

Z347

**Adapter for NTIM –
RS controller
GND conductor**



Z347

Technical data

| | |
|----------------|---|
| GND conductor: | |
| Type | Black, multiple-stranded conductor 1 x 1.5 mm ² , with ribbon cable socket and multi-pin socket ø 2 mm |
| Length | 2.2 m |

Brief description

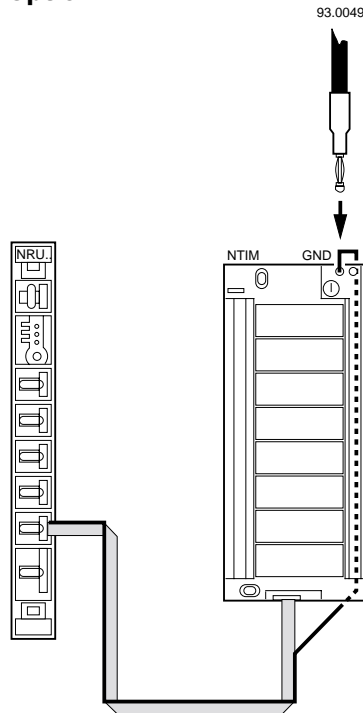
The Z347 adapter is used to extend the GND conductor from the NTIM terminal module carrier to the RS controller. This reduces signal distortions (especially in T1 measuring circuits).

The kit comprises a 10-pin ribbon-cable adapter and a cable. The adapter is connected between the RS module and the terminal module carrier and the ribbon cable is connected to it. The other end of the cable is plugged into the terminal module carrier ('GND', 2 mm socket).

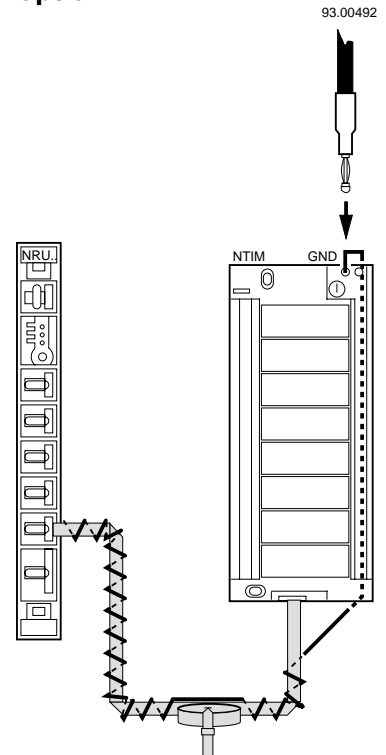
Wiring recommendation

The GND conductor should either be routed parallel to the ribbon cable or wound around it (see also mounting instructions).

Option 1



Option 2

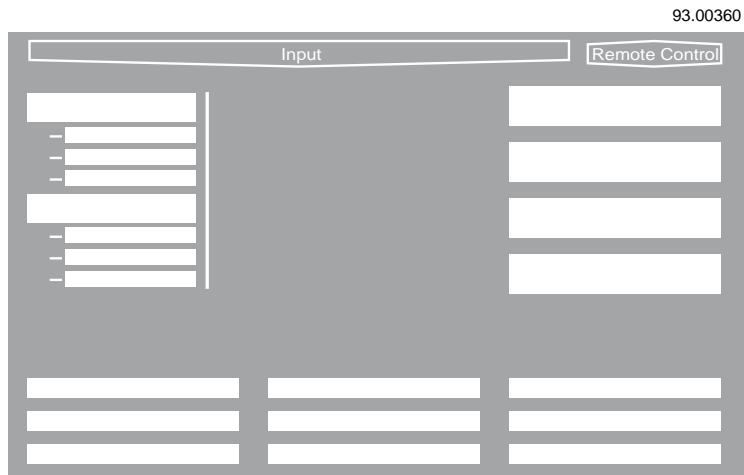


Z398
Adhesive labels for NRK16-B/A

Z398 comprises ten A5 sheets, each with one adhesive label. The labels are the same size as the operator panel of the NRK-16B/A controller (180 x 260 mm). In addition to the standard labelling spaces, nine fields are provided for alarms.

The labels are of the same colour as the device itself.

The paper is suitable for use with a laser-jet printer. The INTEGRAL PLAN software includes a macro for labelling.



Accessories

Z399

Connecting cable for two or more NRK16(-..)



Z399

Technical data

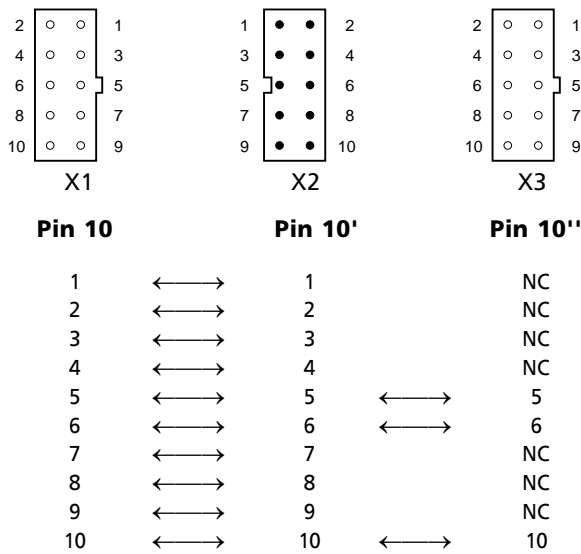
| | |
|------------|---|
| Cable: | |
| Type | Ribbon cable / grey, 10 x 0.5 mm ² |
| Length | 0.5 m |
| Connectors | Ribbon-cable connectors, 10-pin |

Brief description

The Z399 has a 10-pin ribbon-cable connector at each side (X1/X2), suitable for plugging into the service sockets of NRK16(-..) controllers. Between these, a third connector (X3) is available for connection to a further bus cable or an NBRN-.. operator terminal.

Pin connections

93.00494



Note

Although this is a 10-pole cable, not all conductors are point to point (e.g. the supply voltage). All the conductors from the nearest module are connected to the second connector X2.

Z400

Wall-mounting accessories for NBRN..

The Z400 comprises four mounting accessories which can be screwed onto any flat surface. The NBRN.. operator terminals can snap-mounted onto these.

Z402

**Front-mounting kit
 for NRK16-B/A**



Z402

Technical data

| | |
|---------------------|---|
| Protection class | This must be defined for the system as a whole and is not affected by installing an NRK16-B/A with a front-mounting kit. |
| Protection standard | This is defined by the control panel, but is max. IP41 with the front-mounting kit. The protection standard also depends on the thickness of the front plate. If this is more than 2.5 mm, there will be a larger space between the control panel front and the NRK16-B/A, so reducing the protection standard to IP30. |
| Dimensions | See below |

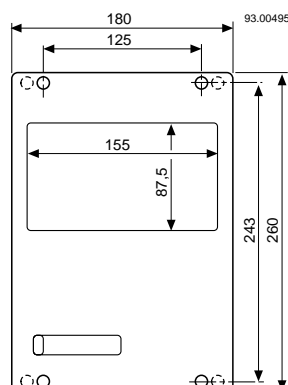
Brief description

The front-mounting kit consists of two fixing brackets, a front plate and 12 fixing screws, and facilitates the mounting of an NRK16-B/A controller in the front of a control panel, for example. The installed controller can be operated from outside the control panel, but the application module can only be removed with a tool, i.e. the controller itself must be removed. The front mounting kit does not affect the protection standard and protection class of the NRK16-B/A.

A drilling/cutting template is enclosed with the mounting kit for the aperture and holes.

See K21-10 for detailed mounting instructions and drilling diagram.

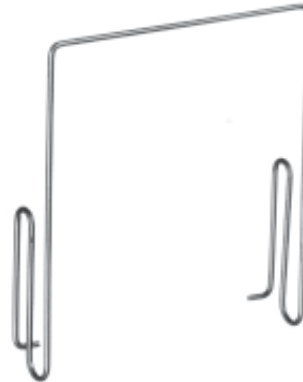
Dimensions [mm]



Accessories

Z404
Mounting clip for NBE

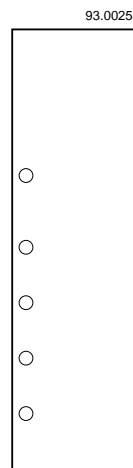
Use of the Z404 is the easiest way of mounting the NBE in a control panel front (see K21-10).



Z404

Z405
Labels for NBE

Z405 comprises ten A4 sheets each with ten separate labels of the same size as the labelling area on the front of the NBE (38 x 136 mm). These labels are required when the remote operator terminal is operated with parameters and setpoints other than those of the standard configuration.



Z405

Z406
NBRN – NBE adapter



Z406

Technical data

| | |
|-----------|---|
| Cable: | |
| Type | Ribbon cable / grey, 10 x 0.5 mm ² |
| Length | 0.5 m |
| Connector | Ribbon cable connections, 10-pin |

Brief description

The Z406 is used to connect an NBRN.. operator terminal directly to the NBE remote operator terminal for the purpose of adjusting parameters.

