

3RG BERO Proximity Switches Accessories

Selection and ordering data

6KX5 014, 6KX5 015, 6KX5 016 power supply and switching units

The 6KX5 power supply and switching unit is designed to supply power to the DC versions of inductive, capacitive BEROs, ultrasonic Sonar-BEROs and DC versions of Opto-BERO photoelectric

proximity switches from 230/110 V and 240 V mains.

A built-in amplifier with a relay output for connection to an L+ (P) connected BERO output is available so that floating signals can be obtained.

Several BERO switches can be supplied from one power supply and switching unit. The sum of the individual BERO loads must not exceed the rating of the power supply and switching unit.

6EV2 300–4AK00 power supply

The 6EV2 power supply is suitable for feeding the DC versions of inductive and capacitive BERO switches and of ultrasonic Sonar-BERO switches and the DC versions of Opto-BERO photoelectric proximity switches.

6KX5 014, 6KX5 015, 6KX5 016 power supply and switching units

6EV2 300–4AK00 power supply

6KX5 014



• Input

| | | | |
|-------------------------|-----------------|---|-----------------------------------|
| Rated voltage | AC V | 230 (connections A1–A2) 110 (connections A1–A3) 240 (connections A1–A2) | 230 (connections A1–A2) – – |
| Voltage tolerance | % | +10 to –15 | +10 to –15 |
| Power consumption | VA | 6 (at rated voltage) | 34 |
| Frequency | Hz | 40 to 60 | 50 to 60 |
| Conductor cross section | mm ² | Max. 2 × 1.5 (screw terminals) | 2 × 1.5 (screw terminals) |
| Signal input | | connection C (BERO-output load with 50 mA to L–, relay switched on by "1" signal at the BERO-output) | – |

• Output

| | | | |
|--------------------------|---------|---|---|
| Output voltage | DC V | 24, stabilized (connections L+ (P)/L– (M)) | 24, stabilized (connections L+ (P)/L– (M)) |
| Ripple | % | – | ≤ 10 |
| Load rating | mA | 180 | 1000 |
| Short-circuit protection | | Built-in | Built-in |
| Relay output | | | |
| NC contact | | Connections 15–16 | |
| NO contact | | Connections 15–18 | |
| Switching voltage | AC/DC V | Max. 250 | |
| Switching capacity | VA | 2000 (at AC 250 V) | |
| | W | 200 (at DC 24 V) | |
| Switching frequency | Hz | 10 | |
| Response time | ms | 10 | |
| Dropout time | ms | 5 | |
| Degree of protection | | IP 20 | IP 20 |
| Ambient temperature | °C | –25 to +40 | 0 to +70 |

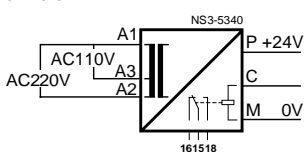
6EV2 300–4AK00



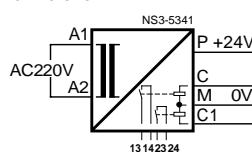
| | Order No. | Price | Weight approx. | Order No. | Price | Weight approx. |
|---|-----------------|--------|----------------|-----------------------|--------|----------------|
| | | 1 unit | kg | | 1 unit | kg |
| Supply AC 110/230 V with 1 relay output (changeover) | 6KX5 014 | | 0.5 | – | | |
| Supply AC 230 V with 2 relay outputs (each with 1 NO) | 6KX5 015 | | 0.5 | – | | |
| Supply AC 240 V with 1 relay output (changeover) | 6KX5 016 | | 0.5 | – | | |
| Supply AC 230 V | – | | | 6EV2 300–4AK00 | | 0.5 |

Wiring examples

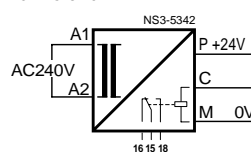
6KX5 014



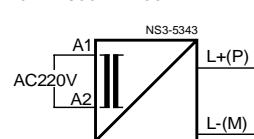
6KX5 015



6KX5 016



6EV2 300–4AK00



3RG BERO Proximity Switches Accessories

Selection and ordering data

4AV21 02-2AB power supply

The 4AV2 power supply is suitable for feeding the DC versions of the inductive and capacitive BERO switches and ultrasonic Sonar-BERO switches and DC versions of Opto-BERO optical proximity switches.

4FC81 34-0LA00-1E power supply



The 4 FC8 power supply functions with a linear controller and delivers a controlled DC voltage of high stability and with low residual ripple content.

The output voltage is isolated from the mains by a safety transformer.

Design

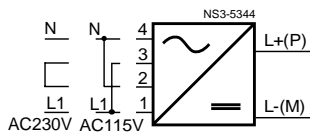
- For snap-on mounting to 35 mm standard mounting rails
- Max. rated current up to +60 °C ambient temperature

- Overload-protected and short-circuit-proof output, automatic switching off and restart
- Switching off in case of over-temperature
- SIGUT terminals.

| | | 4AV21 02-2AB power supply | | 4FC81 34-0LA00-1E power supply | | | |
|-------------------|---|--|--------|---|--------------------------|--------|----------------|
| 4AV21 02-2AB |  | • Input Rated voltage AC V 230 (connections 1-4, bridge 2-3) AC V 115 (connections 1-4, bridges 1-3, 2-4) Voltage tolerance % +6 to -10 Frequency Hz 50 to 60 Conductor cross section mm ² 2 x 2.5 (screw terminal) 2 x 6.3-0.8 (tab connection) | | 230 (connections 1-4, bridge 2-3) 115 (connections 1-4, bridges 1-3, 2-4) +6 to -10 50 to 60 2 x 2.5 (screw terminal) 2 x 6.3-0.8 (tab connection) | | | |
| | | • Output Output voltage DC V 24 (DIN 19 240) (connections L+ (P)/L- (M)) Ripple % ≤ 5 Load rating mA 1000 Short-circuit protection Built-in Degree of protection IP 00 Ambient temperature °C 0 to +60 | | 24 (connections L+ (P)/L- (M)) ≤ 3 1000 Built-in IP 00 0 to +60 | | | |
| 4FC81 34-0LA00-1E |  | | | | | | |
| | | Order No. | Price | Weight approx. | Order No. | Price | Weight approx. |
| | | | 1 unit | kg | | 1 unit | kg |
| | | 4AV21 02-2AB | | 1.5 | 4FC81 34-0LA00-1E | | 2 |

Wiring example

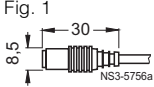
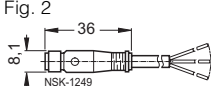
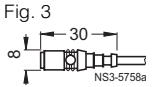
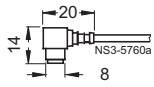
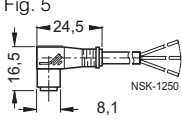
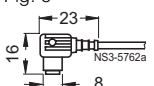
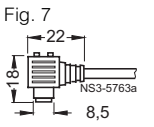
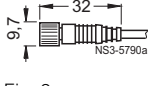
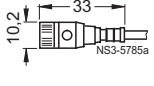
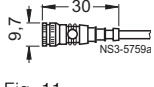
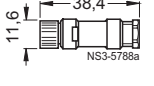
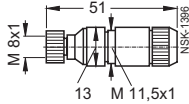
4AV21 02-2AB
4FC81 34-0LA00-1E



3RG BERO Proximity Switches

Accessories

Selection and ordering data

| Fig. | Type ¹⁾ | Cable | Length m | Colour | Accessories Order No. | Price 1 unit |
|--|--------------------|-------|----------|--------|---|-----------------|
| 8 mm cable plug for snap-on mounting, IP 65 | | | | | | |
| 3-pole, 3 x 0.25 mm ² | | | | | | |
| Fig. 1  | 1 | A | PUR | 5 | Black | 3RX1 518 |
| | 2 | | | | Black | 3RX1 520 |
| | 3 | | | | Orange | 3RX1 521 |
| 4-pole, 4 x 0.25 mm ² | | | | | | |
| Fig. 2  | 1 | B | PUR | 5 | Black | 3RX1 522 |
| | 2 | | | | Black | 3RX1 523 |
| | 3 | | | | Orange | 3RX1 524 |
| Fig. 3  | 1 | A | PUR | 5 | Black | 3RX1 525 |
| | 2 | | | | Black | 3RX1 526 |
| | 3 | | | | Orange | 3RX1 527 |
| 8 mm angular cable plug for snap-on mounting, IP 65 | | | | | | |
| 3-pole, 3 x 0.25 mm ² | | | | | | |
| Fig. 4  | 4 | A | PUR | 5 | Black | 3RX1 525 |
| | 5 | | | | Black | 3RX1 526 |
| | 6 | | | | Orange | 3RX1 527 |
| 4-pole, 4 x 0.25 mm ² | | | | | | |
| Fig. 5  | 4 | B | PUR | 5 | Black | 3RX1 528 |
| | 5 | | | | Black | 3RX1 530 |
| | 6 | | | | Orange | 3RX1 552 |
| Fig. 6  | 7 | C | PUR | 5 | Black/clear | 3RX1 531 |
| | 5 | | | | Black/clear | 3RX1 532 |
| | 6 | | | | Orange/clear | 3RX1 517 |
| Fig. 7  | 7 | C | PUR | 5 | Black/clear | 3RX1 531 |
| | 5 | | | | Black/clear | 3RX1 532 |
| | 6 | | | | Orange/clear | 3RX1 517 |
| M 8 cable plug for screw-fastening, IP 67 | | | | | | |
| 3-pole, 3 x 0.25 mm ² | | | | | | |
| Fig. 8  | 8 | A | PUR | 5 | Black | 3RX1 578 |
| | 9 | | | | Black | 3RX1 661 |
| | 10 | | | | Orange | 3RX1 560 |
| Fig. 9  | 11 | A | | | Coupling plug with soldering pins max. 0.25 mm ² | 3RX1 583 |
| | 12 | A | | | Coupling plug with HARAX connection | 3RX1 683 |
| 4-pole, 4 x 0.25 mm ² | | | | | | |
| Fig. 10  | 8 | B | PUR | 5 | Black | 3RX1 577 |
| | 9 | | | | Black | 3RX1 662 |
| | 10 | | | | Orange | 3RX1 561 |
| Fig. 11  | 11 | B | | | Coupling plug with soldering pins max. 0.25 mm ² | 3RX1 581 |
| | 12 | B | | | Coupling plug with HARAX connection | 3RX1 685 |
| Fig. 12  | 12 | B | | | Coupling plug with HARAX connection | 3RX1 685 |

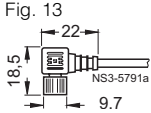
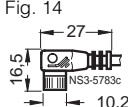
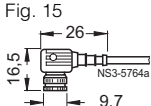
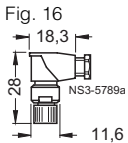
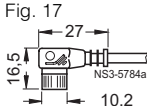
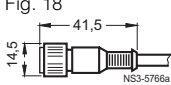
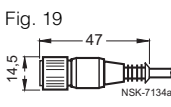
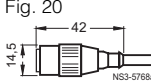
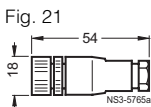
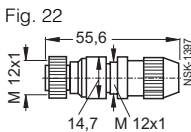
Cable plugs are available in different lengths.
Minimum ordering quantity 50 units. Please inquire.

1) For terminal assignment, see page 10/201.

3RG BERO Proximity Switches

Accessories

Selection and ordering data

| Fig. | Type ¹⁾ | Cable | Length m | Colour | Accessories Order No. | Price 1 unit |
|--|----------------------------------|-------|---|---------|--------------------------|-----------------|
| M 8 angular cable plug for screw-fastening, IP 67 | | | | | | |
| 3-pole, 3 x 0.25 mm ² | | | | | | |
| Fig. 13  | 13 | A | PUR | 5 | Black | 3RX1 576 |
| | 14 | | | | Black | 3RX1 663 |
| | 15 | | | | Orange | 3RX1 562 |
| Fig. 14  | 16 | A | Coupling plug with soldering pins max. 0.25 mm ² | | | 3RX1 582 |
| 3-pole, 3 x 0.25 mm ² , with LED | | | | | | |
| Fig. 15  | 13 | C | PUR | 5 (pnp) | Black | 3RX1 666 |
| | 17 | | | | Black | 3RX1 665 |
| | 15 | | | | Orange | 3RX1 564 |
| | 15 | D | | 5 (npn) | Orange | 3RX1 565 |
| 4-pole, 4 x 0.25 mm ² | | | | | | |
| Fig. 16  | 13 | B | PUR | 5 | Black | 3RX1 575 |
| | 14 | | | | Black | 3RX1 664 |
| | 15 | | | | Orange | 3RX1 563 |
| | 16 | B | Coupling plug with soldering pins max. 0.25 mm ² | | | 3RX1 580 |
| Fig. 17  | | | | | | |
| M 12 cable plug for screw-fastening, IP 67 | | | | | | |
| 3-pole, 3 x 0.34 mm ² | | | | | | |
| Fig. 18  | 18 | E | PUR | 5 | Black | 3RX1 533 |
| | 19 | | | | Black | 3RX1 534 |
| | 20 | | | | Orange | 3RX1 535 |
| Fig. 19  | 4-pole, 4 x 0.34 mm ² | | | | | |
| | 18 | F | PUR | 5 | Black | 3RX1 536 |
| | 19 | | | | Black | 3RX1 537 |
| | 20 | | | | Orange | 3RX1 513 |
| Fig. 20  | 21 | F | Coupling plug with terminal compartment, can be prepared | | | 3RX1 505 |
| | 22 | F | Coupling plug with HARAX connection | | | 3RX1 687 |
| 5-pole, 5 x 0.34 mm ² | | | | | | |
| Fig. 21  | 18 | G | PUR | 5 | Black | 3RX1 630 |
| | 20 | | | | Orange | 3RX1 570 |
| Fig. 22  | 21 | G | Coupling plug with terminal compartment, can be prepared | | | 3RX1 584 |

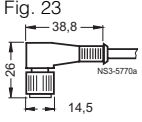
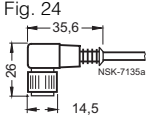
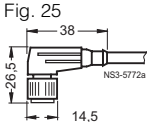
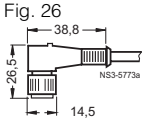
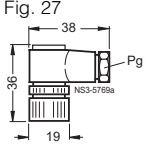
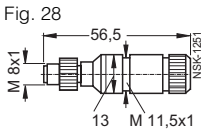
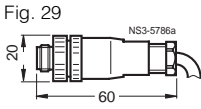
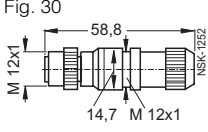
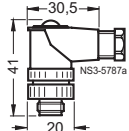
Cable plugs are available in different lengths.
Minimum ordering quantity 50 units. Please inquire.

1) For terminal assignment, see page 10/201.

3RG BERO Proximity Switches

Accessories

Selection and ordering data

| Fig. | Type ¹⁾ | Cable | Length m | Colour | Accessories Order No. | Price 1 unit |
|--|--------------------|-------|--|-----------------------|--------------------------|----------------------------|
| M 12 angular cable plug for screw-fastening, IP 67 | | | | | | |
| 3-pole, 3 x 0.34 mm ² | | | | | | |
|  | 23 | E | PUR | 5 | Black | 3RX1 538 |
| | 24 | | | | Black | 3RX1 540 |
| | 25 | | | | Orange | 3RX1 541 |
| 3-pole, 3 x 0.34 mm ² , with LED for pnp-BERO, only NO | | | | | | |
|  | 26 | H | PUR | 5 | Black | 3RX1 546 |
| | 24 | | | | Black | 3RX1 547 |
| | 25 | | | | Orange | 3RX1 548 |
| 3-pole, 3 x 0.34 mm ² , with LED for pnp-BERO, NO or NC | | | | | | |
|  | 26 | J | PUR | 5 | Black | 3RX1 544 |
| | 24 | | | | Black | 3RX1 545 |
| | 25 | | | | Orange | 3RX1 515 |
| 4-pole, 4 x 0.34 mm ² | | | | | | |
| | 23 | F | PUR | 5 | Black | 3RX1 542 |
| | 24 | | | | Black | 3RX1 543 |
| | 25 | | | | Orange | 3RX1 512 |
|  | 27 | F | Coupling plug with terminal compartment, can be prepared | | | 3RX1 502 |
| 4-pole, 4 x 0.34 mm ² , with LEDs | | | | | | |
| | 26 | K | PUR | 5 | Black | 3RX1 568 |
| | 24 | | | | Black | 3RX1 573 |
| | 25 | | | | Orange | 3RX1 567 |
|  | 23 | G | PUR | 5 | Black | 3RX1 631 |
| | 25 | | | | Orange | 3RX1 571 |
| | 27 | G | Coupling plug with terminal compartment, can be prepared | | | 3RX1 585 |
| M 8 connector, IP 67 | | | | | | |
| for extension cable (union nut of metal) with HARAX connection | | | | | | |
|  | 28 | | 3-pole | | | NEW 3RX1 684 |
| | 28 | | 4-pole | | | NEW 3RX1 686 |
| M 12 connector, IP 67 | | | | | | |
| for extension cable (union nut of metal) with terminal compartment, screw terminal max. 0.75 mm ² cable gland max. 6 mm | | | | | | |
|  | 29 | L | 4-pole | Black | | 3RX1 586 |
|  | 29 | M | 5-pole | Black | | 3RX1 667 |
| | 30 | L | 4-pole | with HARAX connection | | NEW 3RX1 688 |
| M 12 angular connector, IP 67 | | | | | | |
| for extension cable (union nut of metal) with terminal compartment, screw terminal max. 0.75 mm ² cable gland max. 6 mm | | | | | | |
|  | 31 | L | 4-pole | Black | | 3RX1 587 |
| | 31 | M | 5-pole | Black | | 3RX1 668 |

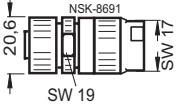
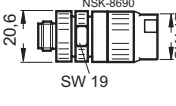
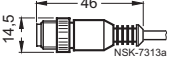
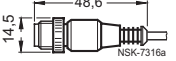
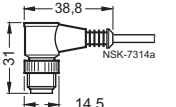
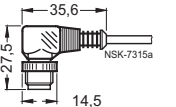
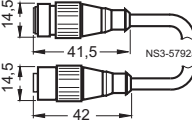
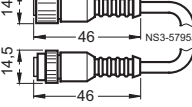

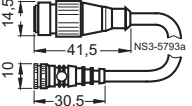
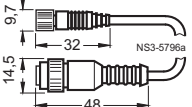
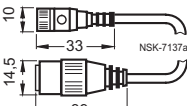

Cable plugs are available in different lengths.
Minimum ordering quantity 50 units. Please inquire.

1) For terminal assignment, see page 10/201.

3RG BERO Proximity Switches

Accessories

Selection and ordering data

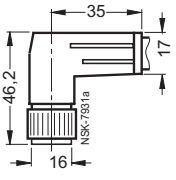
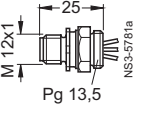
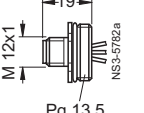
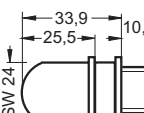
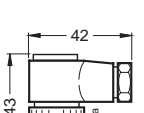
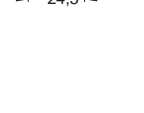
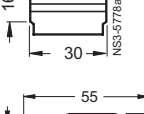
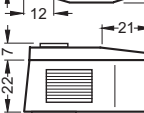

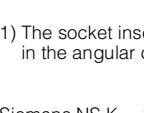

| | | Type ¹⁾ | Length m | Design | Accessories Order No. | Price 1 unit |
|---|---|--------------------|-----------------|---|--|-----------------|
|  | 3RX1 677 | | | M 12 cable plug for screw-fastening, IP 67 4-pole, can be prepared, QUICKON | 3RX1 677 | |
|  | 3RX1 678 | | | M 12 connector, IP 67 4-pole, can be prepared, QUICKON | 3RX1 678 | |
| For AS-Interface, IP 67 | | | | | | |
|  | 3RX1 672 | L | 5 | M 12 connector (union nut of metal) with PUR cable, IP 67 degree of protection | 3RX1 672 3RX1 673 | |
|  | 3RX1 673 | | | | | |
|  | 3RX1 674 | L | 5 | M 12 angular connector (union nut of metal) with PUR cable, IP 67 degree of protection | 3RX1 674 3RX1 675 | |
|  | 3RX1 675 | | | | | |
|  | 3RX1 633, 3RX1 634, 3RX1 635 | E, L | 0.6 1 1.5 | Connection cable with M 12 plug and M 12 connector For connecting to a 3RX1 660-.. distribution unit (union nut of metal) PUR cable | 3RX1 633 3RX1 634 3RX1 635 | |
|  | 3RX1 641, 3RX1 640, 3RX1 642 | F, L | 0.5 1 1.5 | | 3RX1 641 3RX1 640 3RX1 642 | |
|  | 3RX1 652, 3RX1 651, 3RX1 650 | F, L | 0.5 1 1.5 | | 3RX1 652 3RX1 651 3RX1 650 | |
| Note: only terminal 4 (NO) is connected | | | | | | |
|  | 3RX1 636, 3RX1 637, 3RX1 638 | A, L | 0.6 1 1.5 | Connection cable with M 8 plug and M 12 connector For connecting to a 3RX1 660-.. distribution unit (union nut of metal) PUR cable | 3RX1 636 3RX1 637 3RX1 638 | |
|  | 3RX1 647, 3RX1 646, 3RX1 648, 3RX1 644, 3RX1 643, 3RX1 645 | A, L | 0.5 1 1.5 | | 3RX1 647 3RX1 646 3RX1 648 3RX1 644 3RX1 643 3RX1 645 | |
|  | 3RX1 647, 3RX1 646, 3RX1 648, 3RX1 644, 3RX1 643, 3RX1 645 | B, L | 0.6 1 1.5 | | 3RX1 644 3RX1 643 3RX1 645 | |
|  | 3RX1 655, 3RX1 654, 3RX1 653, 3RX1 658, 3RX1 657, 3RX1 656 | B, L | 0.5 1 1.5 | | 3RX1 658 3RX1 657 3RX1 656 | |
| Note: only terminal 4 (NO) is connected | | | | | | |

1) For terminal assignment, see page 10/201.

3RG BERO Proximity Switches

Accessories

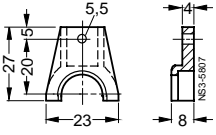
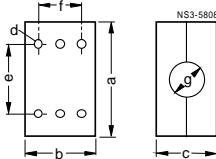
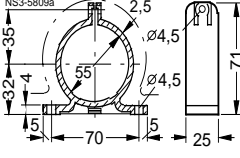


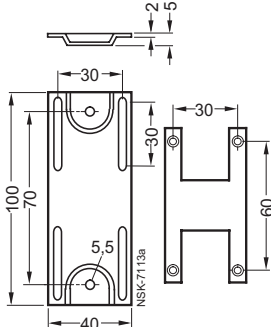
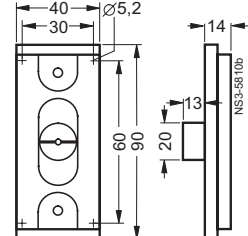
Selection and ordering data

| Design | Type | Length m | Accessories Order No. | Price 1 unit | Weight kg |
|---|------|-------------|--|-----------------|--------------|
|  <p>35 46,2 17 16 NSK-7681a</p> | | 2 | Angular connector 7/8" | | |
| | | | 4-pole, suitable for output socket, with PVC connection cable 4 x 0.5 mm ² IP 67 degree of protection | | |
|  <p>25 M 12x1 Pg 13,5 NS3-5781a</p> | | 2 | Connector 7/8" | | |
| | | | 4-pole, suitable for output socket, with PVC connection cable 4 x 0.5 mm ² IP 67 degree of protection | | |
|  <p>M 12x1 Pg 13,5 NS3-5782a</p> | | 2 | Output socket with terminal compartment, with screw terminal max. 1.5 mm² | | |
| | | | | | |
|  <p>19 M 12x1 Pg 13,5 NSK-8692</p> | | 2 | Angular cable plug 7/8" | | |
| | | | 3-pole, for feed-in of auxiliary power up to AC 230 V, with PVC connection cable 3 x 0.75 mm ² IP 67 degree of protection | | |
|  <p>33,9 25,5 10,5 SW 24 NSK-8692</p> | | 2 | Cable plug 7/8" | | |
| | | | 3-pole, for feed-in of auxiliary power up to AC 230 V, with PVC connection cable 3 x 0.75 mm ² IP 67 degree of protection | | |
|  <p>42 43 24,5 NS3-5776a</p> | | N | Coupling plug 7/8" | | |
| | | | 3-pole, for feed-in of auxiliary power up to AC 230 V, with terminal compartment, with screw terminal max. 1.5 mm ² | | |
|  <p>33,9 25,5 10,5 SW 24 NSK-8692</p> | | 0.5 | Adapter with single leads, M 12 to Pg 13.5 | | |
| | | | 0.5 m, PVC 4 x 0.5 mm ² Adapter for connecting the M 12 connection to BERO, with terminal compartment and Pg 13.5 thread | | |
|  <p>42 43 24,5 NS3-5776a</p> | | | M 12 connection, rotatable | | 0.05 |
| | | | M 12 connection, not rotatable | | 0.05 |
|  <p>42 43 24,5 NS3-5776a</p> | | | Adapter with single leads, HARAX to Pg 13.5 | | |
| | | | Quick connection technology 3 x 0.75 to 1.5 mm ² | | |
|  <p>42 43 24,5 NS3-5776a</p> | | P | M 18 angular coupling plug | | 0.06 |
| | | | 4-pole, black, (moulded plastic) with terminal compartment ¹⁾ , screw terminal max. 1.5 mm ² , cable gland max. 8 mm DC up to 300 V, AC up to 275 V IP 67 degree of protection | | |
|  <p>16 8 30 NS3-5776a</p> | | | Socket (moulded plastic) | | 0.06 |
| | | | | | |
| <p>16 8 30 NS3-5776a</p> | | | Cable plug (moulded plastic) | | 0.05 |
| | | | | | |
| <p>55 Pg 11 20 12 7 21 14 14 16 NS3-5777a</p> | | | Crimp terminals | | |
| | | | IP 67 degree of protection The BERO can be connected via the 3SX6 237 cable plug after removing the Pg 13.5 cable entry and screwing in the 3SX6 274 socket. | | |
| <p>55 Pg 11 20 12 7 21 14 14 16 NS3-5777a</p> | | | The BERO can be connected via the 3SX6 237 cable plug after removing the Pg 13.5 cable entry and screwing in the 3SX6 274 socket. | | |
| | | | Only the cable plug is additionally needed with the cylindrical versions; the coupling socket is already integrated. | | |

1) The socket insert can be readjusted in 90° steps in the angular coupling plug and angular plug.

3RG BERO Proximity Switches Accessories

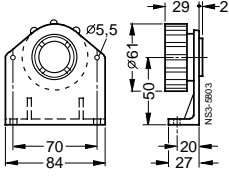
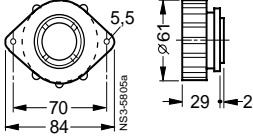
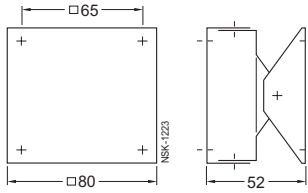
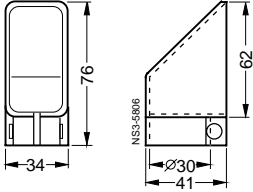
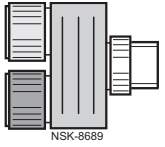
Selection and ordering data

| Design | Accessories Order No. | Price | Weight approx. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|---|----------------|----------|----------|------|----|----|----|------|----|----|----|--------|----|----|----|------------|----------|----------|----------|------|----|----|----|--------|------|------|------|-------|------|------|------|-----------|------------|------------|------------|--|--|
| | | 1 unit | kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>32SX6 280</p>  | <p>Fixing clips¹⁾ (moulded plastic)</p> <p>For BERO with 18 mm dia.</p> <p>For BERO with thread</p> <table border="1"> <thead> <tr> <th>3SX6 281</th> <th>3SX6 282</th> <th>3SX6 283</th> <th>3SX6 284</th> </tr> </thead> <tbody> <tr> <td>a 26</td> <td>36</td> <td>45</td> <td>58</td> </tr> <tr> <td>b 22</td> <td>30</td> <td>30</td> <td>30</td> </tr> <tr> <td>c 11.6</td> <td>18</td> <td>26</td> <td>36</td> </tr> <tr> <td>d dia. 3.5</td> <td>dia. 4.5</td> <td>dia. 4.5</td> <td>dia. 4.5</td> </tr> <tr> <td>e 16</td> <td>24</td> <td>32</td> <td>44</td> </tr> <tr> <td>f 12.6</td> <td>18.5</td> <td>19.6</td> <td>19.6</td> </tr> <tr> <td>g 7.9</td> <td>11.9</td> <td>18.0</td> <td>29.8</td> </tr> <tr> <td>(for M 8)</td> <td>(for M 12)</td> <td>(for M 18)</td> <td>(for M 30)</td> </tr> </tbody> </table> | 3SX6 281 | 3SX6 282 | 3SX6 283 | 3SX6 284 | a 26 | 36 | 45 | 58 | b 22 | 30 | 30 | 30 | c 11.6 | 18 | 26 | 36 | d dia. 3.5 | dia. 4.5 | dia. 4.5 | dia. 4.5 | e 16 | 24 | 32 | 44 | f 12.6 | 18.5 | 19.6 | 19.6 | g 7.9 | 11.9 | 18.0 | 29.8 | (for M 8) | (for M 12) | (for M 18) | (for M 30) | | |
| 3SX6 281 | | 3SX6 282 | 3SX6 283 | 3SX6 284 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| a 26 | | 36 | 45 | 58 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| b 22 | | 30 | 30 | 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| c 11.6 | | 18 | 26 | 36 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| d dia. 3.5 | | dia. 4.5 | dia. 4.5 | dia. 4.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| e 16 | 24 | 32 | 44 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| f 12.6 | 18.5 | 19.6 | 19.6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| g 7.9 | 11.9 | 18.0 | 29.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (for M 8) | (for M 12) | (for M 18) | (for M 30) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>32SX6 281 to 3SX6 284</p>  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>3SX6 212</p>  | <p>Clamp (moulded plastic) for BERO with 55 mm dia. / 3RG40 76</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>3SX6 212</p>  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>3SB19 02-2AE</p>  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>3RX1 303</p>  | <p>Alignment plate for block-type proximity switches</p> <p>3RG16 30 3RG40 30 3RG40 31 3RG40 41 3RG41 31 3RG41 41 3RG46 31</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>3RX1 304</p>  | | <p>Mounting support for snap-on mounting on C-profile rail, can be shifted longitudinally by 20 mm, can be rotated by 360° for block-type proximity switches</p> <p>3RG16 30 3RG40 30 3RG40 31 3RG40 41 3RG41 31 3RG41 41 3RG46 31</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

1) Delivery does not include fastening screws.

3RG BERO Proximity Switches Accessories

Selection and ordering data

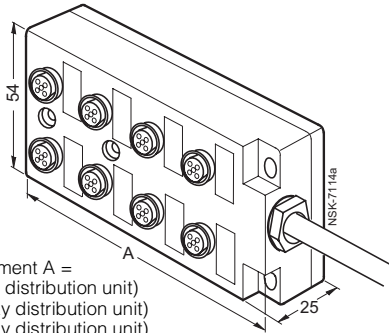
| Design | Accessories Order No. | Price | Weight approx. |
|--|--|--|-----------------------------|
| | | 1 unit | kg |
| <p>3RX1 301</p>  | <p>Alignment device with fixing angle for M 30 Sonar-BERO Swivelling by approx. 20° around the longitudinal axis of the BERO switch. After aligning, the BERO is screwed tight into the selected position.</p> | 3RX1 301 | 0.11 |
| <p>3RX1 302</p>  | <p>Alignment device with fixing flange for M 30 Sonar-BERO Swivelling by approx. 20° around the longitudinal axis of the BERO switch. After aligning, the BERO is screwed tight into the selected position.</p> | 3RX1 302 | 0.074 |
| <p>3SX6 287</p>  | <p>Alignment device for 3SG 16 67 Sonar-BERO</p> | 3SX6 287 | |
| <p>3RX1 910</p>  | <p>Deflector for Sonar-BERO with M 30 housing</p> | 3RX1 910 | 0.028 |
| <p>3RX1 682</p>  | <p>T-distributor for connection of thru-beam sensors to AS-i module</p> | 3RX1 682 | |
| <p>Cable PUR, 20 m, black</p> <p>The cables can be used for all inductive BEROs and Sonar-BEROs with respect to the number of cores. Shielded cables should be used with the Sonar-BEROs of the modular range II.</p> | <p>3 x 0.34 mm² 4 x 0.34 mm²</p> <p>4 x 0.34 mm², shielded</p> | <p>3RX1 554 3RX1 555 3RX1 556</p> | <p>0.6 0.73 1.0</p> |

1
2
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10

3RG BERO Proximity Switches

Accessories

Selection and ordering data



Measurement A =
 82 (4way distribution unit)
 100 (6way distribution unit)
 127 (8way distribution unit)

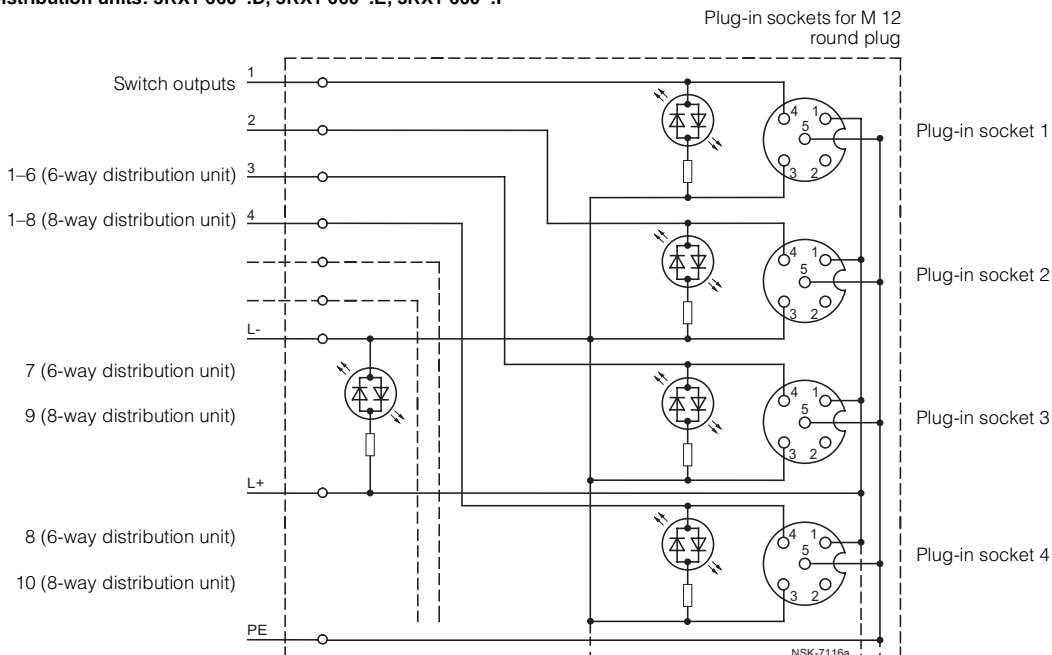
| Design | Accessories Order No. | Price | Weight approx. |
|---|-----------------------|--------|----------------|
| | ▶ Preferred type | 1 unit | kg |
| Distribution unit, four-way 3 m cable 5 m cable 10 m cable | ▶ 3RX1 660-4D | | 0.2 |
| | ▶ 3RX1 660-4E | | 0.25 |
| | ▶ 3RX1 660-4F | | 0.32 |
| Distribution unit, six-way 3 m cable 5 m cable 10 m cable | ▶ 3RX1 660-6D | | 0.48 |
| | ▶ 3RX1 660-6E | | 0.53 |
| | ▶ 3RX1 660-6F | | 0.65 |
| Distribution unit, eight-way 3 m cable 5 m cable 10 m cable | ▶ 3RX1 660-8D | | 0.77 |
| | ▶ 3RX1 660-8E | | 0.82 |
| | ▶ 3RX1 660-8F | | 0.95 |
| Blanket plug for unused connections packing: 10 units | 3RX1 660-0A | | 0.01 |

Technical data

| | | |
|---|------|--|
| Operational voltage | DC V | 24 |
| Max. current per output | A | 2 |
| Core designation, PUR connecting cable | | Black with white numbers |
| Operating temperature | °C | -5 to +70 |
| Material | | Moulded plastic |
| Degree of protection | | IP 65 when plugged in and locked |
| Connections | | M 12 plug connections (sockets in distribution unit) |
| Display | | Per output: 1 yellow LED Operational voltage: 1 green LED |

Circuit diagrams

Distribution units: 3RX1 660-D, 3RX1 660-E, 3RX1 660-F

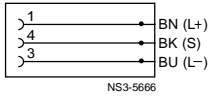


3RG BERO Proximity Switches

Accessories

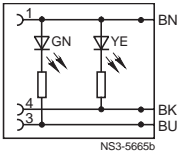
Terminal assignment

Plug-in connection type A, E



BERO with NO function

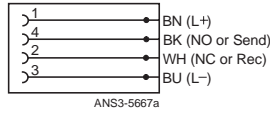
Plug-in connection type D



BERO with NO function, npn

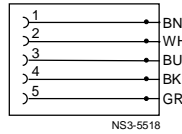
BN = Brown
BK = Black
WH = White
BU = Blue
GR = Grey

Plug-in connection type B, F, L, N, P



BERO with NO + NC function

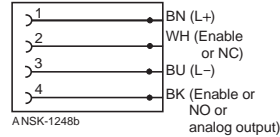
Plug-in connection type G, M



BERO with NO + NC function
Sonar-BERO compact range II and III

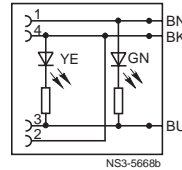
1 = L+
2 = Release or NC output
3 = L-
4 = Release or NO output
5 = Analog output

Plug-in connection type B, F, L, N, P



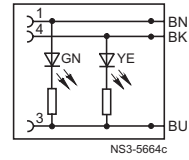
M 18 Sonar-BERO compact range

Plug-in connection type J



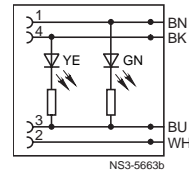
BERO with NO or NC function, npn

Plug-in connection type C, H



BERO with NO function, npn

Plug-in connection type K



BERO with NO or NO + NC function, npn

PIN assignment

8 mm connection for cable plugs and angular cable plugs
(view on contact pins)

Plug-in connection type A, C, D



Plug-in connection type B



M 12 connection for cable plug and angular cable plug
(view on contact pins)

Plug-in connection type E, F, H, J, K, L, N



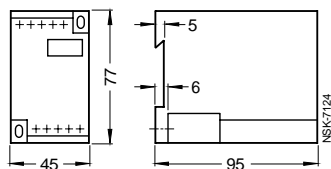
Plug-in connection type G, M



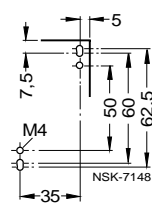
Dimension drawings

Power supply/switching units

6KX5 014, 6KX5 015, 6KX5 016 power supply and switching units

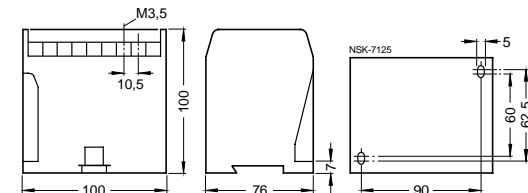


Fixing dimensions

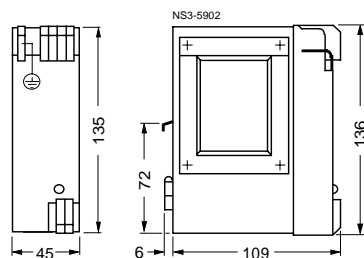


6EV2 300-4AK00 power supply

Fixing dimensions



4AV21 02-2AB power supply for mounting in any position and for snapping onto standard DIN rail acc. to EN 50 022-35 x 7.5



4FC81 34-0LA00-1E power supply for mounting in any position and for snapping onto standard DIN rail acc. to EN 50 022-35 x 7.5

