



Solid-state time-delayed auxiliary switch OFF delay With control signal Relay 1 changeover contact 24...240 V AC/DC Time range 0.05...100 s Can be snapped on at the front For 3RT2 S00-S3 contactors and 3RH2 S00 contactor relays Spring-type terminal Varistor for attenuation of the contactor coils integrated

|                                            |                                         |
|--------------------------------------------|-----------------------------------------|
| Product brand name                         | SIRIUS                                  |
| Product designation                        | Solid-state time-delay auxiliary switch |
| Product type designation                   | 3RA28                                   |
| General technical data                     |                                         |
| Product component                          |                                         |
| • semi-conductor output                    | No                                      |
| Product extension required remote control  | No                                      |
| Product extension optional remote control  | No                                      |
| Power loss [W] total typical               | 1 W                                     |
| Test voltage for isolation test            | 1.5 kV                                  |
| Degree of pollution                        | 3                                       |
| Surge voltage resistance rated value       | 4 kV                                    |
| Test voltage for surge voltage test        | 4 800 V                                 |
| Protection class IP                        |                                         |
| • of the terminal                          | IP20                                    |
| Shock resistance                           |                                         |
| • acc. to IEC 60068-2-27                   | 15g / 11 ms                             |
| Mechanical service life (switching cycles) |                                         |
| • typical                                  | 10 000 000                              |

|                                                                                         |                |
|-----------------------------------------------------------------------------------------|----------------|
| <b>Mechanical service life (switching cycles)</b>                                       |                |
| • with contactor 3R.2 of frame size S00                                                 | 10 000 000     |
| • with contactor 3R.2 of frame size S0                                                  | 10 000 000     |
| • with contactor 3R.2 of frame size S2                                                  | 10 000 000     |
| • with contactor 3R.2 of frame size S3                                                  | 10 000 000     |
| <b>Electrical endurance (switching cycles)</b>                                          |                |
| • at AC-15 at 230 V typical                                                             | 100 000        |
| <b>Electrical endurance (switching cycles)</b>                                          |                |
| • with contactor 3R.2 of frame size S00                                                 | 100 000        |
| • with contactor 3R.2 of frame size S0                                                  | 100 000        |
| • with contactor 3R.2 of frame size S2                                                  | 100 000        |
| • with contactor 3R.2 of frame size S3                                                  | 100 000        |
| <b>Adjustable time</b>                                                                  | 0.05 ... 100 s |
| <b>Relative setting accuracy relating to full-scale value</b>                           | 15 %           |
| <b>Minimum ON period</b>                                                                | 35 ms          |
| <b>Recovery time</b>                                                                    | 150 ms         |
| <b>Reference code acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750</b> | K              |
| <b>Reference code acc. to DIN EN 81346-2</b>                                            | K              |
| <b>Reference code acc. to DIN EN 61346-2</b>                                            | K              |
| <b>Relative repeat accuracy</b>                                                         | 1 %            |

#### Product Function

|                                            |    |
|--------------------------------------------|----|
| <b>Product function star-delta circuit</b> | No |
|--------------------------------------------|----|

#### Control circuit/ Control

|                                                                                 |              |
|---------------------------------------------------------------------------------|--------------|
| <b>Type of voltage of the control supply voltage</b>                            | AC/DC        |
| <b>Control supply voltage 1 at AC</b>                                           |              |
| • at 50 Hz                                                                      | 24 ... 240 V |
| • at 60 Hz                                                                      | 24 ... 240 V |
| <b>Control supply voltage frequency 1</b>                                       | 50 ... 60 Hz |
| <b>Control supply voltage 1</b>                                                 |              |
| • at DC                                                                         | 24 ... 240 V |
| <b>Operating range factor control supply voltage rated value at DC</b>          |              |
| • initial value                                                                 | 0.85         |
| • Full-scale value                                                              | 1.1          |
| <b>Operating range factor control supply voltage rated value at AC at 50 Hz</b> |              |
| • initial value                                                                 | 0.85         |
| • Full-scale value                                                              | 1.1          |
| <b>Operating range factor control supply voltage rated value at AC at 60 Hz</b> |              |
| • initial value                                                                 | 0.85         |

|                                                               |               |
|---------------------------------------------------------------|---------------|
| • Full-scale value                                            | 1.1           |
| <b>Design of the surge suppressor</b>                         | with varistor |
| <b>Switching Function</b>                                     |               |
| <b>Switching function</b>                                     |               |
| • ON-delay                                                    | No            |
| • ON-delay/instantaneous contact                              | No            |
| • passing make contact                                        | No            |
| • passing make contact/instantaneous contact                  | No            |
| • OFF delay                                                   | Yes           |
| <b>Switching function</b>                                     |               |
| • flashing symmetrically starting with interval/instantaneous | No            |
| • flashing symmetrically starting with interval               | No            |
| • flashing symmetrically starting with pulse/instantaneous    | No            |
| • flashing symmetrically starting with pulse                  | No            |
| • flashing asymmetrically starting with interval              | No            |
| • flashing asymmetrically starting with pulse                 | No            |
| <b>Switching function</b>                                     |               |
| • fixed clock cycle beginning with pulse                      | No            |
| • fixed clock cycle beginning with interval                   | No            |
| <b>Switching function</b>                                     |               |
| • variably clocked start with impulse                         | No            |
| • variably clocked start with interval                        | No            |
| <b>Switching function</b>                                     |               |
| • star-delta circuit with delay time                          | No            |
| • star-delta circuit                                          | No            |
| <b>Switching function with control signal</b>                 |               |
| • additive ON delay                                           | No            |
| • passing break contact                                       | No            |
| • passing break contact/instantaneous                         | No            |
| • OFF delay                                                   | Yes           |
| • OFF delay/instantaneous                                     | No            |
| • pulse delayed                                               | No            |
| • pulse delayed/instantaneous                                 | No            |
| • pulse-shaping                                               | No            |
| • pulse-shaping/instantaneous                                 | No            |
| • additive ON delay/instantaneous                             | No            |
| • ON-delay/OFF-delay                                          | No            |
| • ON-delay/OFF-delay/instantaneous                            | No            |
| • passing make contact                                        | No            |

|                                                                          |     |
|--------------------------------------------------------------------------|-----|
| • passing make contact/instantaneous contact                             | No  |
| <b>Switching function of interval relay with control signal</b>          |     |
| • retrotriggerable with deactivated control signal/instantaneous contact | No  |
| • retrotriggerable with activated control signal                         | No  |
| • retrotriggerable with activated control signal/instantaneous contact   | No  |
| • retriggerable with deactivated control signal                          | No  |
| <b>Design of the control terminal non-floating</b>                       | Yes |

### Short-circuit protection

|                                                                 |                 |
|-----------------------------------------------------------------|-----------------|
| <b>Design of the fuse link</b>                                  |                 |
| • for short-circuit protection of the auxiliary switch required | fuse gL/gG: 4 A |

### Auxiliary circuit

|                                                                       |             |
|-----------------------------------------------------------------------|-------------|
| <b>Material of switching contacts</b>                                 | AgNi        |
| <b>Number of CO contacts</b>                                          |             |
| • delayed switching                                                   | 1           |
| <b>Operating current of auxiliary contacts at AC-15</b>               |             |
| • maximum                                                             | 3 A         |
| • at 24 V                                                             | 3 A         |
| • at 250 V                                                            | 3 A         |
| <b>Operating current of auxiliary contacts as NC contact at AC-15</b> |             |
| • at 24 V                                                             | 3 A         |
| • at 250 V                                                            | 3 A         |
| <b>Operating current of auxiliary contacts as NO contact at AC-15</b> |             |
| • at 24 V                                                             | 3 A         |
| • at 250 V                                                            | 3 A         |
| <b>Operating current of auxiliary contacts at DC-13</b>               | 1 ... 0.1   |
| <b>Operating current of auxiliary contacts at DC-13</b>               |             |
| • at 24 V                                                             | 1 A         |
| • at 125 V                                                            | 0.2 A       |
| • at 250 V                                                            | 0.1 A       |
| <b>Operating frequency with 3RT2 contactor maximum</b>                | 2 500 1/h   |
| <b>Contact rating of auxiliary contacts according to UL</b>           | B300 / R300 |
| <b>Influence of the surrounding temperature</b>                       | ±1 %        |
| <b>Power supply influence</b>                                         | ±1 %        |

### Main circuit

|                        |       |
|------------------------|-------|
| <b>Type of voltage</b> | AC/DC |
|------------------------|-------|

### Inputs/ Outputs

|                                                                                                           |    |
|-----------------------------------------------------------------------------------------------------------|----|
| <b>Product function</b>                                                                                   |    |
| <ul style="list-style-type: none"> <li>• at the relay outputs Switchover delayed/without delay</li> </ul> | No |
| <ul style="list-style-type: none"> <li>• non-volatile</li> </ul>                                          | No |

#### Electromagnetic compatibility

|                                                                                                            |                                                   |
|------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| <b>EMI immunity</b>                                                                                        |                                                   |
| <ul style="list-style-type: none"> <li>• acc. to IEC 61812-1</li> </ul>                                    | Environment A (industrial area)                   |
| <b>Conducted interference</b>                                                                              |                                                   |
| <ul style="list-style-type: none"> <li>• due to burst acc. to IEC 61000-4-4</li> </ul>                     | 2 kV network connection / 1 kV control connection |
| <ul style="list-style-type: none"> <li>• due to conductor-earth surge acc. to IEC 61000-4-5</li> </ul>     | 2 kV                                              |
| <ul style="list-style-type: none"> <li>• due to conductor-conductor surge acc. to IEC 61000-4-5</li> </ul> | 1 kV                                              |
| <b>Field-bound parasitic coupling acc. to IEC 61000-4-3</b>                                                | 10 V/m                                            |
| <b>Electrostatic discharge acc. to IEC 61000-4-2</b>                                                       | 8 kV                                              |

#### Safety related data

|                                            |                  |
|--------------------------------------------|------------------|
| <b>Protection against electrical shock</b> | finger-safe      |
| <b>Type of insulation</b>                  | Basic insulation |
| <b>Category acc. to EN 954-1</b>           | none             |

#### Connections/ Terminals

|                                                                                                          |                                                                      |
|----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| <b>Product function</b>                                                                                  |                                                                      |
| <ul style="list-style-type: none"> <li>• removable terminal for auxiliary and control circuit</li> </ul> | Yes                                                                  |
| <b>Type of electrical connection</b>                                                                     |                                                                      |
| <ul style="list-style-type: none"> <li>• for auxiliary and control current circuit</li> </ul>            | spring-loaded terminals                                              |
| <b>Type of connectable conductor cross-sections</b>                                                      |                                                                      |
| <ul style="list-style-type: none"> <li>• solid</li> </ul>                                                | 0.5 ... 4 mm <sup>2</sup> , 2x (0.5 ... 2.5 mm <sup>2</sup> )        |
| <ul style="list-style-type: none"> <li>• finely stranded with core end processing</li> </ul>             | 1x (0.5 ... 2.5 mm <sup>2</sup> ), 2x (0.5 ... 1.5 mm <sup>2</sup> ) |
| <ul style="list-style-type: none"> <li>• finely stranded without core end processing</li> </ul>          | 2x (0.5 ... 1.5 mm <sup>2</sup> )                                    |
| <ul style="list-style-type: none"> <li>• at AWG conductors solid</li> </ul>                              | 2x (20 ... 14)                                                       |
| <ul style="list-style-type: none"> <li>• at AWG conductors stranded</li> </ul>                           | 2x (20 ... 14)                                                       |
| <b>Connectable conductor cross-section</b>                                                               |                                                                      |
| <ul style="list-style-type: none"> <li>• solid</li> </ul>                                                | 0.5 ... 4 mm <sup>2</sup>                                            |
| <ul style="list-style-type: none"> <li>• finely stranded with core end processing</li> </ul>             | 0.5 ... 2.5 mm <sup>2</sup>                                          |
| <ul style="list-style-type: none"> <li>• finely stranded without core end processing</li> </ul>          | 0.25 ... 1.5 mm <sup>2</sup>                                         |
| <b>AWG number as coded connectable conductor cross section</b>                                           |                                                                      |
| <ul style="list-style-type: none"> <li>• solid</li> </ul>                                                | 20 ... 14                                                            |
| <ul style="list-style-type: none"> <li>• stranded</li> </ul>                                             | 20 ... 14                                                            |

#### Installation/ mounting/ dimensions

|                          |                      |
|--------------------------|----------------------|
| <b>Mounting position</b> | any (like contactor) |
|--------------------------|----------------------|

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| <b>Mounting type</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | clip-on |
| <b>Height</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 38 mm   |
| <b>Width</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 45 mm   |
| <b>Depth</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 74 mm   |
| <b>Required spacing</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |         |
| <ul style="list-style-type: none"> <li>• with side-by-side mounting <ul style="list-style-type: none"> <li>— forwards 0 mm</li> <li>— Backwards 0 mm</li> <li>— upwards 0 mm</li> <li>— downwards 0 mm</li> <li>— at the side 0 mm</li> </ul> </li> <li>• for grounded parts <ul style="list-style-type: none"> <li>— forwards 0 mm</li> <li>— Backwards 0 mm</li> <li>— upwards 0 mm</li> <li>— at the side 0 mm</li> <li>— downwards 0 mm</li> </ul> </li> <li>• for live parts <ul style="list-style-type: none"> <li>— forwards 0 mm</li> <li>— Backwards 0 mm</li> <li>— upwards 0 mm</li> <li>— downwards 0 mm</li> <li>— at the side 0 mm</li> </ul> </li> </ul> |         |
| <b>Ambient conditions</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |         |
| <b>Installation altitude at height above sea level</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |         |
| <ul style="list-style-type: none"> <li>• maximum 2 000 m</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |         |
| <b>Relative humidity</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |         |
| <ul style="list-style-type: none"> <li>• during operation 0 ... 95 %</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |         |
| <b>Certificates/ approvals</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |         |

| General Product Approval                                                                 |                                                                                          |                                                                                         |                                                                                   | Declaration of Conformity                                                                       |                               |
|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------|
| <br>CCC | <br>CSA | <br>UL |  | <br>EG-Konf. | <a href="#">Miscellaneous</a> |

| Test Certificates                                  |                                          | Marine / Shipping                                                                        |                                                                                                        |                                                                                            |                                                                                             |
|----------------------------------------------------|------------------------------------------|------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| <a href="#">Type Test Certificates/Test Report</a> | <a href="#">Special Test Certificate</a> | <br>ABS | <br>BUREAU<br>VERITAS | <br>LRS | <br>RINA |

| Marine / Shipping                                                                         |                                                                                                                                      | other                        | Railway                             |  |
|-------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------------------------------------|--|
| <br>RMRS | <br>TYPE APPROVED PRODUCT<br>DNV-GL<br>DNVGL.COM/AF | <a href="#">Confirmation</a> | <a href="#">Vibration and Shock</a> |  |

#### Further information

##### Information- and Downloadcenter (Catalogs, Brochures,...)

[www.siemens.com/sirius/catalogs](http://www.siemens.com/sirius/catalogs)

##### Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RA2814-2AW10>

##### Cax online generator

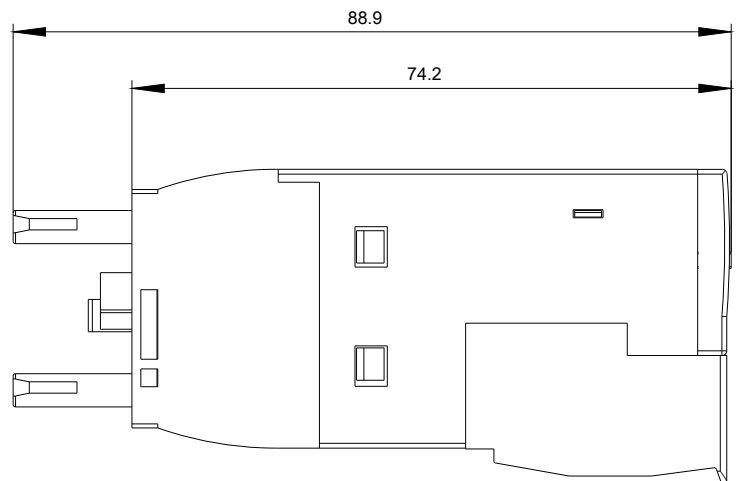
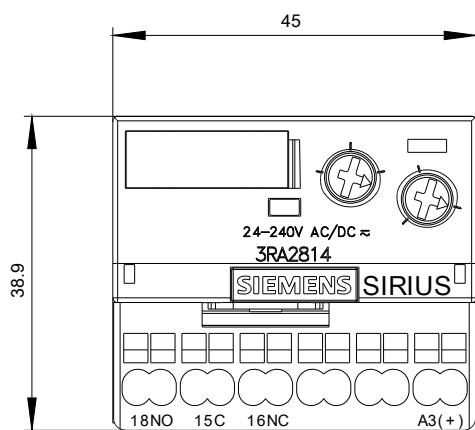
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2814-2AW10>

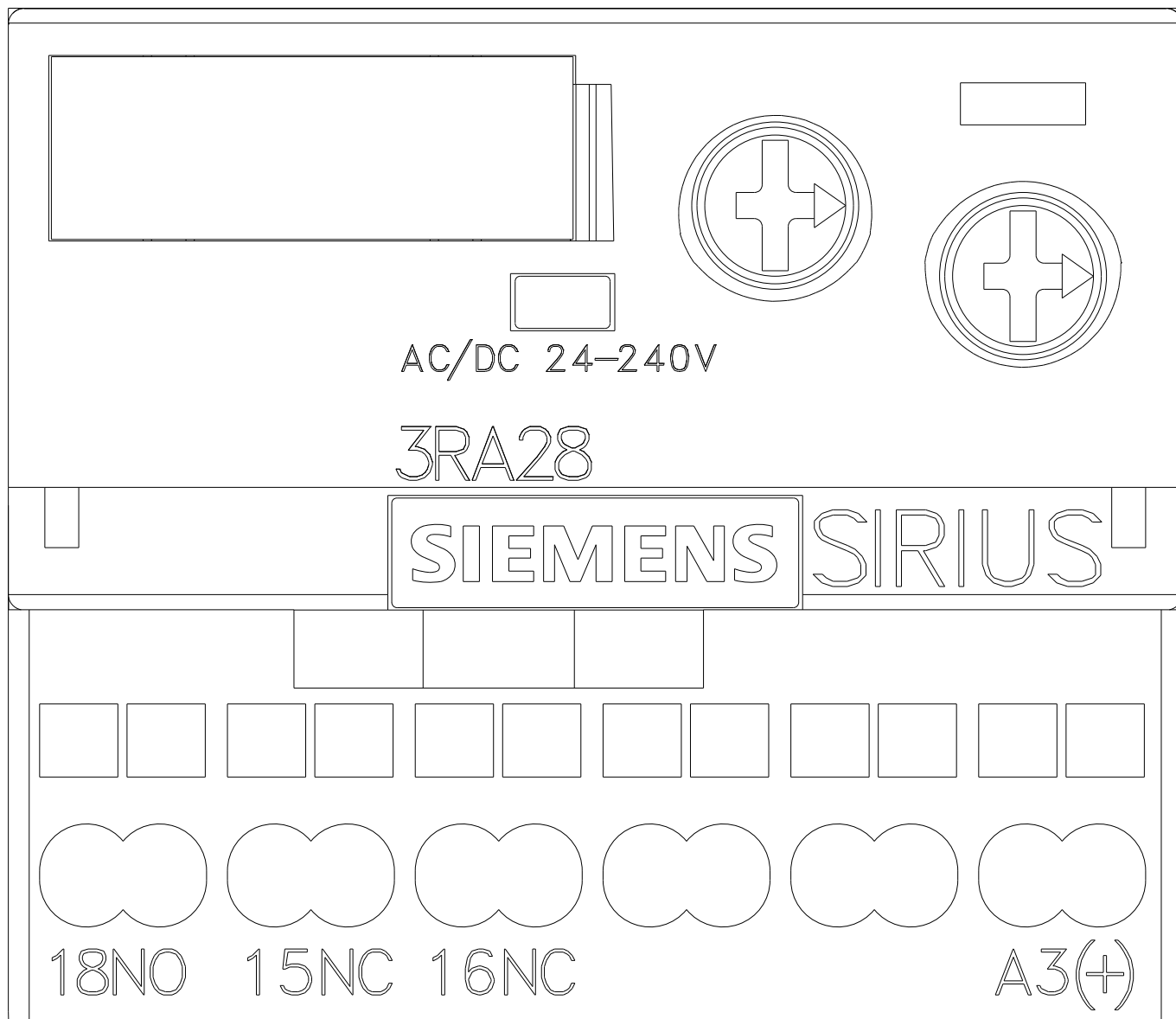
##### Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

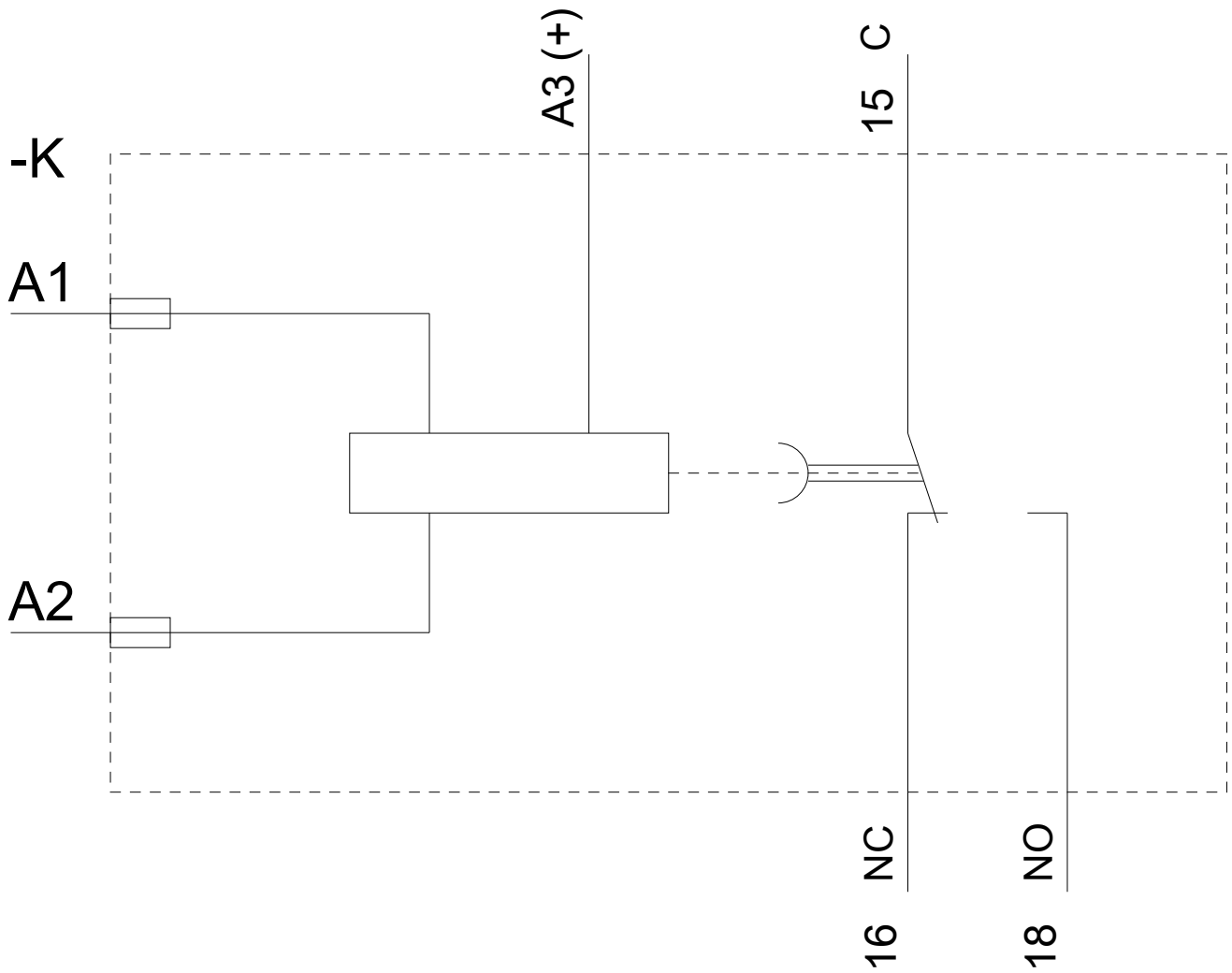
<https://support.industry.siemens.com/cs/ww/en/ps/3RA2814-2AW10>

##### Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RA2814-2AW10&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2814-2AW10&lang=en)







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