## SIEMENS

## Data sheet

## 3UF7310-1AB00-0

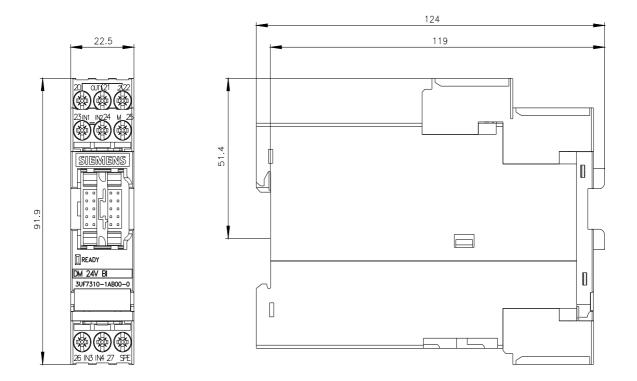


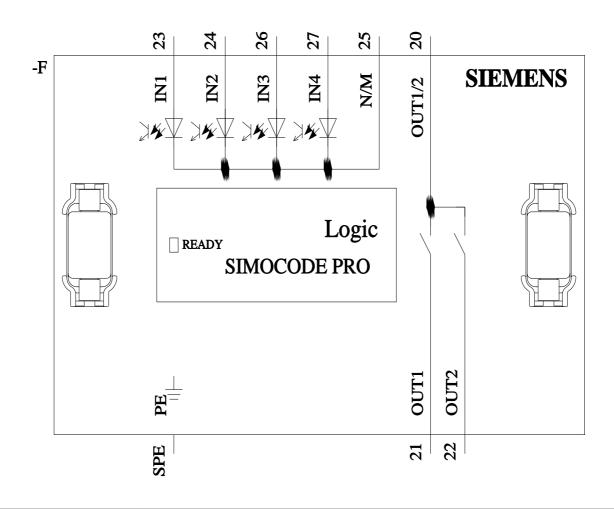
Digital module, 4 inputs and 2 relay outputs, input voltage 24 V DC, relay outputs bistable, max. 2 digital modules, for SIMOCODE pro V basic unit

| the set of |                                     |
|---|-------------------------------------|
| product brand name  | SIRIUS                              |
| product designation   | digital modules                     |
| General technical data  |                                     |
| product component   |                                     |
| <ul> <li>input for thermistor connection</li> </ul>   | No                                  |
| digital input   | Yes                                 |
| <ul> <li>input for analog temperature sensors</li> </ul>  | No                                  |
| <ul> <li>input for ground fault detection</li> </ul>  | No                                  |
| ● relay output  | Yes                                 |
| consumed active power   | 0.7 W                               |
| insulation voltage with degree of pollution 3 at AC rated value   | 300 V                               |
| surge voltage resistance rated value  | 4 000 V                             |
| protection class IP   | IP20                                |
| shock resistance according to IEC 60068-2-27  | 15g / 11 ms                         |
| vibration resistance according to IEC 60068-2-6   | 1 6 Hz: 15 mm, 6 500 Hz: 2g         |
| switching capacity current of the NO contacts of the relay<br>outputs at AC-15  |                                     |
| • at 24 V   | 6 A                                 |
| • at 120 V  | 6 A                                 |
| • at 230 V  | 3 A                                 |
| switching capacity current of the NO contacts of the relay<br>outputs at DC-13  |                                     |
| • at 24 V   | 2 A                                 |
| • at 60 V   | 0.55 A                              |
| • at 125 V  | 0.25 A                              |
| mechanical service life (operating cycles) typical  | 10 000 000                          |
| electrical endurance (operating cycles) typical   | 100 000                             |
| reference code according to IEC 81346-2   | К                                   |
| reference code according to IEC 81346-2:2019  | К                                   |
| continuous current of the NO contacts of the relay outputs  |                                     |
| ● at 50 °C  | 6 A                                 |
| • at 60 °C  | 5 A                                 |
| Substance Prohibitance (Date)   | 05/01/2012                          |
| Electromagnetic compatibility   |                                     |
| EMC emitted interference according to IEC 60947-1   | class A                             |
| EMC immunity according to IEC 60947-1   | corresponds to degree of severity 3 |
| conducted interference  |                                     |
| <ul> <li>due to burst according to IEC 61000-4-4</li> </ul>   | 1 KV                                |
| • due to conductor-earth surge according to IEC 61000-4-5   | 2 kV                                |
| • due to conductor-conductor surge according to IEC 61000-4-5   | 1 kV                                |

| • due to high-frequency radiation according to IEC 61000-   |   |
|---|---|
|   | 10 V  |
| 4-6<br>field-based interference according to IEC 61000-4-3  | 10 V/m  |
| electrostatic discharge according to IEC 61000-4-3  | 6 kV contact discharge / 8 kV air discharge   |
| conducted HF interference emissions according to  | corresponds to degree of severity A   |
| CISPR11   | corresponds to degree of seventy A  |
| field-bound HF interference emission according to CISPR11   | corresponds to degree of severity A   |
| Inputs/ Outputs   |   |
| product function  |   |
| <ul> <li>parameterizable inputs</li> </ul>  | Yes   |
| parameterizable outputs   | Yes   |
| number of inputs  | 4   |
| number of digital inputs  | 4   |
| <ul> <li>with a common reference potential</li> </ul>   | 4   |
| digital input version   |   |
| • type 1 acc. to IEC 61131  | No  |
| • type 2 acc. to IEC 61131  | Yes   |
| number of analog inputs   | 0   |
| input voltage at digital input at DC rated value  | 24 V  |
| number of outputs   | 2   |
| number of semiconductor outputs   | 0   |
| number of outputs as contact-affected switching element   | 2   |
| number of analog outputs  | 0   |
| switching behavior  | bistable  |
| property of contacts of the relay outputs   | Floating NO contacts (NC reaction parameterizable via internal signal conditioning), connected to common ground, can be freely assigned to the control functions (e.g. line, star (wye), delta contactor or signaling of the operating state)   |
| wire length for digital signals maximum   | 300 m   |
| Installation/ mounting/ dimensions  |   |
| mounting position   | any   |
| fastening method  | screw and snap-on mounting  |
| height  | 92 mm   |
| width   | 22.5 mm   |
| depth   | 124 mm  |
| required spacing  |   |
| • top   | 40 mm   |
| bottom  | 40 mm   |
| • left  | 0 mm  |
| • right   | 0 mm  |
|   |   |
| Connections/ Terminals  |   |
| Connections/ Terminals<br>product component removable terminal for auxiliary and<br>control circuit   | Yes   |
| product component removable terminal for auxiliary and  | Yes   |
| product component removable terminal for auxiliary and control circuit  | Yes<br>1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²)   |
| product component removable terminal for auxiliary and control circuit type of connectable conductor cross-sections   |   |
| product component removable terminal for auxiliary and<br>control circuit<br>type of connectable conductor cross-sections<br>• solid  | 1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²)  |
| product component removable terminal for auxiliary and<br>control circuit<br>type of connectable conductor cross-sections<br>• solid<br>• finely stranded with core end processing  | 1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²)<br>1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²)  |
| product component removable terminal for auxiliary and<br>control circuit<br>type of connectable conductor cross-sections<br>• solid<br>• finely stranded with core end processing<br>• for AWG cables solid  | 1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²)<br>1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²)<br>1x (20 14), 2x (20 16)  |
| product component removable terminal for auxiliary and<br>control circuit<br>type of connectable conductor cross-sections<br>• solid<br>• finely stranded with core end processing<br>• for AWG cables solid<br>• for AWG cables stranded   | 1x (0.5 4.0 mm <sup>2</sup> ), 2x (0.5 2.5 mm <sup>2</sup> )<br>1x (0.5 2.5 mm <sup>2</sup> ), 2x (0.5 1.5 mm <sup>2</sup> )<br>1x (20 14), 2x (20 16)<br>1x (20 12), 2x (20 14)  |
| product component removable terminal for auxiliary and control circuit         type of connectable conductor cross-sections         • solid         • finely stranded with core end processing         • for AWG cables solid         • for AWG cables stranded         tightening torque with screw-type terminals   | 1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²)<br>1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²)<br>1x (20 14), 2x (20 16)<br>1x (20 12), 2x (20 14)<br>0.8 1.2 N·m   |
| product component removable terminal for auxiliary and control circuit         type of connectable conductor cross-sections         • solid         • finely stranded with core end processing         • for AWG cables solid         • for AWG cables stranded         tightening torque with screw-type terminals         tightening torque [lbf-in] with screw-type terminals  | 1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²)<br>1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²)<br>1x (20 14), 2x (20 16)<br>1x (20 12), 2x (20 14)<br>0.8 1.2 N·m   |
| product component removable terminal for auxiliary and control circuit         type of connectable conductor cross-sections         • solid         • finely stranded with core end processing         • for AWG cables solid         • for AWG cables stranded         tightening torque with screw-type terminals         tightening torque [lbf-in] with screw-type terminals         Ambient conditions   | 1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²)<br>1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²)<br>1x (20 14), 2x (20 16)<br>1x (20 12), 2x (20 14)<br>0.8 1.2 N·m   |
| product component removable terminal for auxiliary and control circuit         type of connectable conductor cross-sections         • solid         • finely stranded with core end processing         • for AWG cables solid         • for AWG cables stranded         tightening torque with screw-type terminals         tightening torque [lbf·in] with screw-type terminals         Ambient conditions         installation altitude at height above sea level   | 1x (0.5 4.0 mm <sup>2</sup> ), 2x (0.5 2.5 mm <sup>2</sup> )<br>1x (0.5 2.5 mm <sup>2</sup> ), 2x (0.5 1.5 mm <sup>2</sup> )<br>1x (20 14), 2x (20 16)<br>1x (20 12), 2x (20 14)<br>0.8 1.2 N·m<br>7 10.3 lbf·in  |
| product component removable terminal for auxiliary and control circuit         type of connectable conductor cross-sections         • solid         • finely stranded with core end processing         • for AWG cables solid         • for AWG cables solid         • for AWG cables stranded         tightening torque with screw-type terminals         tightening torque [lbf·in] with screw-type terminals         Ambient conditions         installation altitude at height above sea level         • 1 maximum  | 1x (0.5 4.0 mm <sup>2</sup> ), 2x (0.5 2.5 mm <sup>2</sup> )<br>1x (0.5 2.5 mm <sup>2</sup> ), 2x (0.5 1.5 mm <sup>2</sup> )<br>1x (20 14), 2x (20 16)<br>1x (20 12), 2x (20 14)<br>0.8 1.2 N·m<br>7 10.3 lbf-in<br>2 000 m   |
| product component removable terminal for auxiliary and control circuit         type of connectable conductor cross-sections         • solid         • finely stranded with core end processing         • for AWG cables solid         • for AWG cables stranded         tightening torque with screw-type terminals         tightening torque [lbf-in] with screw-type terminals         Ambient conditions         installation altitude at height above sea level         • 1 maximum         • 2 maximum   | 1x (0.5 4.0 mm <sup>2</sup> ), 2x (0.5 2.5 mm <sup>2</sup> )<br>1x (0.5 2.5 mm <sup>2</sup> ), 2x (0.5 1.5 mm <sup>2</sup> )<br>1x (20 14), 2x (20 16)<br>1x (20 12), 2x (20 14)<br>0.8 1.2 N·m<br>7 10.3 lbf·in<br>2 000 m<br>3 000 m; max. +50 °C (no protective separation)  |
| product component removable terminal for auxiliary and control circuit         type of connectable conductor cross-sections         • solid         • finely stranded with core end processing         • for AWG cables solid         • for AWG cables stranded         tightening torque with screw-type terminals         tightening torque [lbf·in] with screw-type terminals         Installation altitude at height above sea level         • 1 maximum         • 3 maximum  | 1x (0.5 4.0 mm <sup>2</sup> ), 2x (0.5 2.5 mm <sup>2</sup> )<br>1x (0.5 2.5 mm <sup>2</sup> ), 2x (0.5 1.5 mm <sup>2</sup> )<br>1x (20 14), 2x (20 16)<br>1x (20 12), 2x (20 14)<br>0.8 1.2 N·m<br>7 10.3 lbf·in<br>2 000 m<br>3 000 m; max. +50 °C (no protective separation)  |
| product component removable terminal for auxiliary and control circuit         type of connectable conductor cross-sections         • solid         • finely stranded with core end processing         • for AWG cables solid         • for AWG cables stranded         tightening torque with screw-type terminals         tightening torque [lbf·in] with screw-type terminals         Ambient conditions         • 1 maximum         • 2 maximum         • 3 maximum         ambient temperature   | 1x (0.5 4.0 mm <sup>2</sup> ), 2x (0.5 2.5 mm <sup>2</sup> )<br>1x (0.5 2.5 mm <sup>2</sup> ), 2x (0.5 1.5 mm <sup>2</sup> )<br>1x (20 14), 2x (20 16)<br>1x (20 12), 2x (20 14)<br>0.8 1.2 N·m<br>7 10.3 lbf-in<br>2 000 m<br>3 000 m; max. +50 °C (no protective separation)<br>4 000 m; max. +40 °C (no protective separation)                             |
| product component removable terminal for auxiliary and control circuit         type of connectable conductor cross-sections         • solid         • finely stranded with core end processing         • for AWG cables solid         • for AWG cables stranded         tightening torque with screw-type terminals         tightening torque [lbf·in] with screw-type terminals         Ambient conditions         installation altitude at height above sea level         • 1 maximum         • 2 maximum         • 3 maximum         ambient temperature         • during operation  | 1x (0.5 4.0 mm <sup>2</sup> ), 2x (0.5 2.5 mm <sup>2</sup> )<br>1x (0.5 2.5 mm <sup>2</sup> ), 2x (0.5 1.5 mm <sup>2</sup> )<br>1x (20 14), 2x (20 16)<br>1x (20 12), 2x (20 14)<br>0.8 1.2 N·m<br>7 10.3 lbf-in<br>2 000 m<br>3 000 m; max. +50 °C (no protective separation)<br>4 000 m; max. +40 °C (no protective separation)<br>-25 +60 °C               |
| product component removable terminal for auxiliary and control circuit         type of connectable conductor cross-sections         • solid         • finely stranded with core end processing         • for AWG cables solid         • for AWG cables stranded         tightening torque with screw-type terminals         tightening torque [lbf·in] with screw-type terminals         Ambient conditions         installation altitude at height above sea level         • 1 maximum         • 2 maximum         • 3 maximum         ambient temperature         • during operation         • during storage                           | 1x (0.5 4.0 mm <sup>2</sup> ), 2x (0.5 2.5 mm <sup>2</sup> )<br>1x (0.5 2.5 mm <sup>2</sup> ), 2x (0.5 1.5 mm <sup>2</sup> )<br>1x (20 14), 2x (20 16)<br>1x (20 12), 2x (20 14)<br>0.8 1.2 N·m<br>7 10.3 lbf·in<br>2 000 m<br>3 000 m; max. +50 °C (no protective separation)<br>4 000 m; max. +40 °C (no protective separation)<br>-25 +60 °C<br>-40 +80 °C |
| product component removable terminal for auxiliary and control circuit         type of connectable conductor cross-sections         • solid         • finely stranded with core end processing         • for AWG cables solid         • for AWG cables stranded         tightening torque with screw-type terminals         tightening torque [lbf·in] with screw-type terminals         Mbient conditions         installation altitude at height above sea level         • 1 maximum         • 2 maximum         • 3 maximum         ambient temperature         • during operation         • during storage         • during transport | 1x (0.5 4.0 mm <sup>2</sup> ), 2x (0.5 2.5 mm <sup>2</sup> )<br>1x (0.5 2.5 mm <sup>2</sup> ), 2x (0.5 1.5 mm <sup>2</sup> )<br>1x (20 14), 2x (20 16)<br>1x (20 12), 2x (20 14)<br>0.8 1.2 N·m<br>7 10.3 lbf·in<br>2 000 m<br>3 000 m; max. +50 °C (no protective separation)<br>4 000 m; max. +40 °C (no protective separation)<br>-25 +60 °C<br>-40 +80 °C |

| during transport according to IEC 60721   | not get into the devices), 3M6<br>3K6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 (sand must<br>not get into the devices), 3M6   |
|---|--|
| relative humidity during operation  | 5 95 %   |
| contact rating of auxiliary contacts according to UL  | B300 / R300  |
| Short-circuit protection  |  |
| design of short-circuit protection per output   | Fuse links: gG 6 A, quick-response 10 A (IEC 60947-5-1), miniature circuit-<br>breaker C char.: 1.6 A (IEC 60947-5-1) or 6 A (I_K < 500 A)   |
| Safety related data   |  |
| touch protection against electrical shock   | finger-safe  |
| Galvanic isolation  |  |
| (electrically) protective separation according to IEC 60947-1   | All circuits with protective separation (double creepage paths and clearances), the information in the "Protective Separation" test report, No. A0258, must be observed (link see further information) |
| Control circuit/ Control  |  |
| type of voltage of the control supply voltage   | DC   |
| control supply voltage at DC  |  |
| rated value   | 24 V   |
| operating range factor control supply voltage rated value at DC   |  |
| initial value   | 0.8  |
| • full-scale value  | 1.2  |
| Certificates/ approvals   |  |
| General Product Approval  | EMC  |
|   |  |
| Declaration of Conformity Test Certifica  | ates Marine / Shipping   |
| CE UK Type Test Ce ates/Test Re   | ABS RMRS   |
| other   |  |
| Confirmation<br>Profibus  |  |
|   |  |
| Further information   |  |
| Siemens has decided to exit the Russian market (see here).<br>https://press.siemens.com/global/en/pressrelease/siemens-wind-d   | down-russian-business  |
| Siemens is working on the renewal of the current EAC certific<br>Please contact your local Siemens office on the status of validity of<br>EAC relevant market (other than the sanctioned EAEU member st<br>Information on the packaging<br>https://support.industry.siemens.com/cs/ww/en/view/109813875 | cates.<br>of the EAC certification if you intend to import or offer to supply these products to an   |
| Information- and Downloadcenter (Catalogs, Brochures,)<br><u>https://www.siemens.com/ic10</u><br>Industry Mall (Online ordering system)   |  |
| https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlft   | b=3UF7310-1AB00-0  |
| Cax online generator<br>http://support.automation.siemens.com/WW/CAXorder/default.asp   | px?lang=en&mlfb=3UF7310-1AB00-0  |
| Service&Support (Manuals, Certificates, Characteristics, FAQ  | Qs,)   |
| https://support.industry.siemens.com/cs/ww/en/ps/3UF7310-1AB0<br>Image database (product images, 2D dimension drawings, 3D  | D models, device circuit diagrams, EPLAN macros,)  |
| http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3U<br>Test report No. A0258, protective separation<br>https://support.industry.siemens.com/cs/ww/en/view/109748152  | <u>JF7310-1AB00-0⟨=en</u>  |
| https://support.industry.siemens.com/cs/ww/en/view/109748152  |  |
|   |  |





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