



SIMATIC ET 200SP, Digital output module, DQ 16x 24V DC/0.5A Standard, Source output (PNP, P-switching) Packing unit: 1 piece, fits to BU-type A0, Colour Code CC00, substitute value output, module diagnostics for: short-circuit to L+ and ground, wire break, supply voltage

| General information                                       |                                                        |
|-----------------------------------------------------------|--------------------------------------------------------|
| Product type designation                                  | DQ 16x24VDC/0.5 ST                                     |
| HW functional status                                      | from FS21                                              |
| Firmware version                                          | V0.0                                                   |
| • FW update possible                                      | No                                                     |
| usable BaseUnits                                          | BU type A0                                             |
| Color code for module-specific color identification plate | CC00                                                   |
| Product function                                          |                                                        |
| • I&M data                                                | Yes; I&M0 to I&M3                                      |
| • Isochronous mode                                        | No                                                     |
| Engineering with                                          |                                                        |
| • STEP 7 TIA Portal configurable/integrated from version  | STEP 7 TIA V14 with HSP0222 / integrated as of TIA V15 |
| • STEP 7 configurable/integrated from version             | V5.5 SP3 with HSP0230 V7.0 / integrated as of V5.6 SP1 |
| • PCS 7 configurable/integrated from version              | V8.1 SP1                                               |
| • PROFIBUS from GSD version/GSD revision                  | One GSD file each, Revision 3 and 5 and higher         |
| • PROFINET from GSD version/GSD revision                  | GSDML V2.3                                             |
| Operating mode                                            |                                                        |
| • DQ                                                      | Yes                                                    |
| • DQ with energy-saving function                          | No                                                     |
| • PWM                                                     | No                                                     |
| • Oversampling                                            | No                                                     |
| • MSO                                                     | No                                                     |
| Supply voltage                                            |                                                        |
| Rated value (DC)                                          | 24 V                                                   |
| permissible range, lower limit (DC)                       | 19.2 V                                                 |
| permissible range, upper limit (DC)                       | 28.8 V                                                 |
| Reverse polarity protection                               | Yes                                                    |
| Input current                                             |                                                        |
| Current consumption, max.                                 | 30 mA; without load                                    |
| output voltage / header                                   |                                                        |
| Rated value (DC)                                          | 24 V                                                   |
| Power loss                                                |                                                        |
| Power loss, typ.                                          | 1 W                                                    |
| Address area                                              |                                                        |
| Address space per module                                  |                                                        |
| • Address space per module, max.                          | 2 byte; + 2 bytes for QI information                   |
| Hardware configuration                                    |                                                        |
| Automatic encoding                                        | Yes                                                    |
| • Mechanical coding element                               | Yes                                                    |
| • Type of mechanical coding element                       | Type A                                                 |

|                                                  |                                                                                                                          |
|--------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| Selection of BaseUnit for connection variants    |                                                                                                                          |
| • 1-wire connection                              | BU type A0                                                                                                               |
| • 2-wire connection                              | BU type A0 with AUX terminals or potential distributor module                                                            |
| • 3-wire connection                              | BU type A0 with AUX terminals or potential distributor module                                                            |
| <b>Digital outputs</b>                           |                                                                                                                          |
| Type of digital output                           | Source output (PNP, current-sourcing)                                                                                    |
| Number of digital outputs                        | 16                                                                                                                       |
| Current-sinking                                  | No                                                                                                                       |
| Current-sourcing                                 | Yes                                                                                                                      |
| Digital outputs, parameterizable                 | Yes                                                                                                                      |
| output type acc. to IEC 61131, type 0.5          | Yes                                                                                                                      |
| Short-circuit protection                         | Yes; Electronic                                                                                                          |
| • Response threshold, typ.                       | 1 A; 0.7 to 1.3 A                                                                                                        |
| Open-circuit detection                           | Yes                                                                                                                      |
| Limitation of inductive shutdown voltage to      | Typ. L+ (-50 V)                                                                                                          |
| Controlling a digital input                      | Yes                                                                                                                      |
| <b>Switching capacity of the outputs</b>         |                                                                                                                          |
| • with resistive load, max.                      | 0.5 A                                                                                                                    |
| • with inductive load, max.                      | 0.5 A                                                                                                                    |
| • on lamp load, max.                             | 5 W                                                                                                                      |
| <b>Load resistance range</b>                     |                                                                                                                          |
| • lower limit                                    | 48 Ω                                                                                                                     |
| • upper limit                                    | 12 kΩ                                                                                                                    |
| <b>Output current</b>                            |                                                                                                                          |
| • for signal "1" rated value                     | 0.5 A                                                                                                                    |
| • for signal "1" permissible range, max.         | 0.5 A                                                                                                                    |
| • for signal "0" residual current, max.          | 0.1 mA                                                                                                                   |
| <b>Output delay with resistive load</b>          |                                                                                                                          |
| • "0" to "1", typ.                               | 50 μs                                                                                                                    |
| • "1" to "0", typ.                               | 100 μs                                                                                                                   |
| <b>Parallel switching of two outputs</b>         |                                                                                                                          |
| • for uprating                                   | No                                                                                                                       |
| • for redundant control of a load                | Yes                                                                                                                      |
| <b>Switching frequency</b>                       |                                                                                                                          |
| • with resistive load, max.                      | 100 Hz                                                                                                                   |
| • with inductive load, max.                      | 0.1 Hz; higher frequencies are possible, see Equipment Manual "Maximum permitted switching frequency of inductive loads" |
| • on lamp load, max.                             | 10 Hz                                                                                                                    |
| <b>Total current of the outputs</b>              |                                                                                                                          |
| • Current per channel, max.                      | 0.5 A                                                                                                                    |
| • Current per module, max.                       | 8 A; see Equipment Manual "Derating curve"                                                                               |
| <b>Total current of the outputs (per module)</b> |                                                                                                                          |
| horizontal installation                          |                                                                                                                          |
| — up to 40 °C, max.                              | 8 A                                                                                                                      |
| — up to 50 °C, max.                              | 6 A                                                                                                                      |
| — up to 60 °C, max.                              | 4 A                                                                                                                      |
| vertical installation                            |                                                                                                                          |
| — up to 30 °C, max.                              | 8 A                                                                                                                      |
| — up to 40 °C, max.                              | 6 A                                                                                                                      |
| — up to 50 °C, max.                              | 4 A                                                                                                                      |
| <b>Cable length</b>                              |                                                                                                                          |
| • shielded, max.                                 | 1 000 m                                                                                                                  |
| • unshielded, max.                               | 600 m                                                                                                                    |
| <b>Interrupts/diagnostics/status information</b> |                                                                                                                          |
| Diagnostics function                             | Yes                                                                                                                      |
| Substitute values connectable                    | Yes                                                                                                                      |
| <b>Alarms</b>                                    |                                                                                                                          |
| • Diagnostic alarm                               | Yes                                                                                                                      |
| <b>Diagnoses</b>                                 |                                                                                                                          |
| • Monitoring the supply voltage                  | Yes                                                                                                                      |
| • Wire-break                                     | Yes; Module-wise                                                                                                         |

|                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |         |                |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
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| <ul style="list-style-type: none"><li>• Short-circuit to M</li><li>• Short-circuit to L+</li><li>• Group error</li></ul>                                                                                                                                                                             | Yes; Module-wise<br>Yes; Module-wise<br>Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |         |                |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| Diagnostics indication LED                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |         |                |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| <ul style="list-style-type: none"><li>• Monitoring of the supply voltage (PWR-LED)</li><li>• Channel status display</li><li>• for channel diagnostics</li><li>• for module diagnostics</li></ul>                                                                                                     | Yes; green PWR LED<br>Yes; green LED<br>No<br>Yes; green/red DIAG LED                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |         |                |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| Potential separation                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |         |                |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| Potential separation channels                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |         |                |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| <ul style="list-style-type: none"><li>• between the channels</li><li>• between the channels and backplane bus</li><li>• Between the channels and load voltage L+</li></ul>                                                                                                                           | No<br>Yes<br>No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |         |                |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| Isolation                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |         |                |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| Isolation tested with                                                                                                                                                                                                                                                                                | 707 V DC (type test)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                |         |                |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| Standards, approvals, certificates                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |         |                |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| Suitable for safety functions                                                                                                                                                                                                                                                                        | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |         |                |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| Suitable for safety-related tripping of standard modules                                                                                                                                                                                                                                             | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |         |                |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| Ecological footprint                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |         |                |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| <ul style="list-style-type: none"><li>• environmental product declaration</li></ul>                                                                                                                                                                                                                  | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                |         |                |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| Global warming potential                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |         |                |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| <ul style="list-style-type: none"><li>— global warming potential, (total) [CO2 eq]</li><li>— global warming potential, (during production) [CO2 eq]</li><li>— global warming potential, (during operation) [CO2 eq]</li><li>— global warming potential, (after end of life cycle) [CO2 eq]</li></ul> | 29.3 kg<br>3.98 kg<br>25.6 kg<br>-0.245 kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                |         |                |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| Ambient conditions                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |         |                |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| Ambient temperature during operation                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |         |                |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| <ul style="list-style-type: none"><li>• horizontal installation, min.</li><li>• horizontal installation, max.</li><li>• vertical installation, min.</li><li>• vertical installation, max.</li></ul>                                                                                                  | -30 °C; < 0 °C as of FS03<br>60 °C<br>-30 °C; < 0 °C as of FS03<br>50 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |         |                |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| Altitude during operation relating to sea level                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |         |                |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| <ul style="list-style-type: none"><li>• Installation altitude above sea level, max.</li></ul>                                                                                                                                                                                                        | 5 000 m; restrictions for installation altitudes > 2 000 m, see ET 200SP system manual                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                |         |                |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| Dimensions                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |         |                |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| Width                                                                                                                                                                                                                                                                                                | 15 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |         |                |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| Height                                                                                                                                                                                                                                                                                               | 73 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |         |                |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| Depth                                                                                                                                                                                                                                                                                                | 58 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |         |                |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| Weights                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |         |                |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| Weight, approx.                                                                                                                                                                                                                                                                                      | 30 g                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                |         |                |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| Classifications                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |         |                |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
|                                                                                                                                                                                                                                                                                                      | <table><tr><td></td><td>Version</td><td>Classification</td></tr><tr><td>eClass</td><td>14</td><td>27-24-26-04</td></tr><tr><td>eClass</td><td>12</td><td>27-24-26-04</td></tr><tr><td>eClass</td><td>9.1</td><td>27-24-26-04</td></tr><tr><td>eClass</td><td>9</td><td>27-24-26-04</td></tr><tr><td>eClass</td><td>8</td><td>27-24-26-04</td></tr><tr><td>eClass</td><td>7.1</td><td>27-24-26-04</td></tr><tr><td>eClass</td><td>6</td><td>27-24-26-04</td></tr><tr><td>ETIM</td><td>10</td><td>EC001599</td></tr><tr><td>ETIM</td><td>9</td><td>EC001599</td></tr><tr><td>ETIM</td><td>8</td><td>EC001599</td></tr><tr><td>ETIM</td><td>7</td><td>EC001599</td></tr><tr><td>IDEA</td><td>4</td><td>3566</td></tr><tr><td>UNSPSC</td><td>15</td><td>32-15-17-05</td></tr></table> |                | Version | Classification | eClass | 14 | 27-24-26-04 | eClass | 12 | 27-24-26-04 | eClass | 9.1 | 27-24-26-04 | eClass | 9 | 27-24-26-04 | eClass | 8 | 27-24-26-04 | eClass | 7.1 | 27-24-26-04 | eClass | 6 | 27-24-26-04 | ETIM | 10 | EC001599 | ETIM | 9 | EC001599 | ETIM | 8 | EC001599 | ETIM | 7 | EC001599 | IDEA | 4 | 3566 | UNSPSC | 15 | 32-15-17-05 |
|                                                                                                                                                                                                                                                                                                      | Version                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Classification |         |                |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| eClass                                                                                                                                                                                                                                                                                               | 14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 27-24-26-04    |         |                |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| eClass                                                                                                                                                                                                                                                                                               | 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 27-24-26-04    |         |                |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| eClass                                                                                                                                                                                                                                                                                               | 9.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 27-24-26-04    |         |                |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| eClass                                                                                                                                                                                                                                                                                               | 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 27-24-26-04    |         |                |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| eClass                                                                                                                                                                                                                                                                                               | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 27-24-26-04    |         |                |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| eClass                                                                                                                                                                                                                                                                                               | 7.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 27-24-26-04    |         |                |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| eClass                                                                                                                                                                                                                                                                                               | 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 27-24-26-04    |         |                |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| ETIM                                                                                                                                                                                                                                                                                                 | 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | EC001599       |         |                |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| ETIM                                                                                                                                                                                                                                                                                                 | 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | EC001599       |         |                |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| ETIM                                                                                                                                                                                                                                                                                                 | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | EC001599       |         |                |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| ETIM                                                                                                                                                                                                                                                                                                 | 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | EC001599       |         |                |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| IDEA                                                                                                                                                                                                                                                                                                 | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 3566           |         |                |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| UNSPSC                                                                                                                                                                                                                                                                                               | 15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 32-15-17-05    |         |                |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| Approvals / Certificates                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |         |                |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |

## General Product Approval



[Miscellaneous](#)

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## General Product Approval

### EMV

### For use in hazardous locations

[KC](#)



[KC](#)



[CCC-Ex](#)

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### For use in hazardous locations

### Maritime application



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### Maritime application



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## Environment



last modified:

9/24/2025