



SIMATIC ET 200AL, DIQ 4+DQ 4x 24 V DC/0.5 A, 4x M12, Degree of protection IP67

| General information                                             |                                                                                                      |
|-----------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| Product type designation                                        | DIQ 4+DQ 4x24VDC/0.5A                                                                                |
| HW functional status                                            | FS06                                                                                                 |
| Firmware version                                                | V2.0.x                                                                                               |
| Product function                                                |                                                                                                      |
| • I&M data                                                      | Yes; I&M0 to I&M3                                                                                    |
| Engineering with                                                |                                                                                                      |
| • STEP 7 TIA Portal configurable/integrated from version        | STEP 7 V13 SP1 or higher                                                                             |
| • STEP 7 configurable/integrated from version                   | V5.5 SP4 Hotfix 7 or higher                                                                          |
| • PROFIBUS from GSD version/GSD revision                        | GSD as of Revision 5                                                                                 |
| • PROFINET from GSD version/GSD revision                        | GSDML V2.3.1                                                                                         |
| Supply voltage                                                  |                                                                                                      |
| power supply according to NEC Class 2 required                  | No                                                                                                   |
| Load voltage 1L+                                                |                                                                                                      |
| • Rated value (DC)                                              | 24 V                                                                                                 |
| • permissible range, lower limit (DC)                           | 20.4 V                                                                                               |
| • permissible range, upper limit (DC)                           | 28.8 V                                                                                               |
| • Reverse polarity protection                                   | Yes; Against destruction; encoder power supply outputs applied with reversed polarity, loads pick up |
| Load voltage 2L+                                                |                                                                                                      |
| • Rated value (DC)                                              | 24 V                                                                                                 |
| • permissible range, lower limit (DC)                           | 20.4 V                                                                                               |
| • permissible range, upper limit (DC)                           | 28.8 V                                                                                               |
| • Reverse polarity protection                                   | Yes; against destruction; load increasing                                                            |
| Input current                                                   |                                                                                                      |
| Current consumption (rated value)                               | 40 mA; 40 mA (1L+) / 20 mA (2L+); without load                                                       |
| from load voltage 1L+ (unswitched voltage)                      | 4 A; Maximum value                                                                                   |
| from load voltage 2L+, max.                                     | 4 A; Maximum value                                                                                   |
| Encoder supply                                                  |                                                                                                      |
| Number of outputs                                               | 4                                                                                                    |
| 24 V encoder supply                                             |                                                                                                      |
| • Short-circuit protection                                      | Yes; per module, electronic                                                                          |
| • Output current, max.                                          | 0.7 A; Total current of all encoders                                                                 |
| Power loss                                                      |                                                                                                      |
| Power loss, typ.                                                | 2.5 W                                                                                                |
| Digital inputs                                                  |                                                                                                      |
| Number of digital inputs                                        | 4; Parameterizable as DIQ                                                                            |
| Sourcing/sinking input                                          | P-reading                                                                                            |
| Input characteristic curve in accordance with IEC 61131, type 3 | Yes                                                                                                  |

|                                                       |                                                          |
|-------------------------------------------------------|----------------------------------------------------------|
| Number of simultaneously controllable inputs          |                                                          |
| all mounting positions                                |                                                          |
| — up to 55 °C, max.                                   | 4                                                        |
| Input voltage                                         |                                                          |
| • Rated value (DC)                                    | 24 V                                                     |
| • for signal "0"                                      | -3 to +5V                                                |
| • for signal "1"                                      | +11 to +30V                                              |
| Input current                                         |                                                          |
| • for signal "1", typ.                                | 3.2 mA                                                   |
| Input delay (for rated value of input voltage)        |                                                          |
| for standard inputs                                   |                                                          |
| — at "0" to "1", min.                                 | 1.2 ms                                                   |
| — at "0" to "1", max.                                 | 4.8 ms                                                   |
| — at "1" to "0", min.                                 | 1.2 ms                                                   |
| — at "1" to "0", max.                                 | 4.8 ms                                                   |
| Cable length                                          |                                                          |
| • unshielded, max.                                    | 30 m                                                     |
| Digital outputs                                       |                                                          |
| Number of digital outputs                             | 8; 4 DQ fixed, 4 DIQ parameterizable                     |
| • in groups of                                        | 4; 2 load groups for 4 outputs each                      |
| Current-sourcing                                      | Yes                                                      |
| output type acc. to IEC 61131, type 0.5               | Yes                                                      |
| Short-circuit protection                              | Yes; per channel, electronic                             |
| • Response threshold, typ.                            | 0.7 A                                                    |
| Limitation of inductive shutdown voltage to           | 2L+ (-47 V)                                              |
| Switching capacity of the outputs                     |                                                          |
| • on lamp load, max.                                  | 5 W                                                      |
| Load resistance range                                 |                                                          |
| • lower limit                                         | 48 Ω                                                     |
| • upper limit                                         | 4 kΩ                                                     |
| Output voltage                                        |                                                          |
| • for signal "1", min.                                | L+ (-0.8 V)                                              |
| Output current                                        |                                                          |
| • for signal "1" rated value                          | 0.5 A                                                    |
| • for signal "0" residual current, max.               | 0.5 mA                                                   |
| Switching frequency                                   |                                                          |
| • with resistive load, max.                           | 100 Hz                                                   |
| • with inductive load, max.                           | 0.5 Hz                                                   |
| • on lamp load, max.                                  | 1 Hz                                                     |
| Total current of the outputs                          |                                                          |
| • Current per group, max.                             | 2 A                                                      |
| Cable length                                          |                                                          |
| • unshielded, max.                                    | 30 m                                                     |
| Encoder                                               |                                                          |
| Connectable encoders                                  |                                                          |
| • 2-wire sensor                                       | Yes                                                      |
| — permissible quiescent current (2-wire sensor), max. | 1.5 mA                                                   |
| Interrupts/diagnostics/status information             |                                                          |
| Substitute values connectable                         | Yes; channel by channel, parameterizable                 |
| Alarms                                                |                                                          |
| • Diagnostic alarm                                    | Yes; Parameterizable                                     |
| Diagnoses                                             |                                                          |
| • Short-circuit                                       | Yes; Outputs to M; encoder supply to M; module by module |
| Diagnostics indication LED                            |                                                          |
| • Channel status display                              | Yes; green LED                                           |
| • for module diagnostics                              | Yes; green/red LED                                       |
| • For load voltage monitoring                         | Yes; green LED                                           |
| Potential separation                                  |                                                          |
| between the load voltages                             | Yes                                                      |

| Potential separation channels                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |         |                |        |    |             |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------|----------------|--------|----|-------------|--------|----|-------------|--------|----|-------------|--------|-----|-------------|--------|---|-------------|--------|---|-------------|--------|-----|-------------|--------|---|-------------|------|----|----------|------|---|----------|------|---|----------|------|---|----------|------|---|------|--------|----|-------------|
| <ul style="list-style-type: none"><li>• between the channels, in groups of</li><li>• between the channels and backplane bus</li><li>• between the channels and the power supply of the electronics</li></ul>          | 4; DIQ channels are isolated from DQ channels<br>Yes<br>No; DIQ channels are non-isolated and DQ channels are isolated from supply voltage 1L+                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |         |                |        |    |             |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| Isolation                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |         |                |        |    |             |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| Isolation tested with                                                                                                                                                                                                 | 707 V DC (type test)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                |         |                |        |    |             |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| Degree and class of protection                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |         |                |        |    |             |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| IP degree of protection                                                                                                                                                                                               | IP65/67                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                |         |                |        |    |             |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| Standards, approvals, certificates                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |         |                |        |    |             |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| Suitable for safety-related tripping of standard modules                                                                                                                                                              | Yes; from FS01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |         |                |        |    |             |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| Highest safety class achievable for safety-related tripping of standard modules                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |         |                |        |    |             |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| <ul style="list-style-type: none"><li>• Performance level according to ISO 13849-1</li><li>• Category according to ISO 13849-1</li><li>• SIL acc. to IEC 62061</li><li>• remark on safety-oriented shutdown</li></ul> | PL d<br>Cat. 3<br>SIL 2<br><a href="https://www.modulplc.com/?s=6ES7143-5AF00-0BA0">https://www.modulplc.com/?s=6ES7143-5AF00-0BA0</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |         |                |        |    |             |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| Security                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |         |                |        |    |             |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| signed firmware update                                                                                                                                                                                                | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                |         |                |        |    |             |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| data integrity                                                                                                                                                                                                        | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                |         |                |        |    |             |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| Ambient conditions                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |         |                |        |    |             |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| Ambient temperature during operation                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |         |                |        |    |             |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| <ul style="list-style-type: none"><li>• min.</li><li>• max.</li></ul>                                                                                                                                                 | -30 °C<br>55 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |         |                |        |    |             |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| Altitude during operation relating to sea level                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |         |                |        |    |             |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| <ul style="list-style-type: none"><li>• Ambient air temperature-barometric pressure-altitude</li></ul>                                                                                                                | Up to max. 5 000 m, at installation height > 2 000 m additional restrictions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |         |                |        |    |             |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| Connection method                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |         |                |        |    |             |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| Design of electrical connection for the inputs and outputs                                                                                                                                                            | M12, 5-pole                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                |         |                |        |    |             |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| Design of electrical connection for supply voltage                                                                                                                                                                    | M8, 4-pole                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                |         |                |        |    |             |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| ET-Connection                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |         |                |        |    |             |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| <ul style="list-style-type: none"><li>• ET-Connection</li></ul>                                                                                                                                                       | M8, 4-pin, shielded                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                |         |                |        |    |             |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| Dimensions                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |         |                |        |    |             |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| Width                                                                                                                                                                                                                 | 30 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                |         |                |        |    |             |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| Height                                                                                                                                                                                                                | 159 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |         |                |        |    |             |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| Depth                                                                                                                                                                                                                 | 40 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                |         |                |        |    |             |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| Weights                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |         |                |        |    |             |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| Weight, approx.                                                                                                                                                                                                       | 145 g                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                |         |                |        |    |             |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| Classifications                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |         |                |        |    |             |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
|                                                                                                                                                                                                                       | <table><tr><th></th><th>Version</th><th>Classification</th></tr><tr><td>eClass</td><td>16</td><td>27-24-26-04</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 | 16 | 27-24-26-04 | 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                                                                                                                                                                                                                | 16                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 27-24-26-04    |         |                |        |    |             |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |
| 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                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |         |                |        |    |             |        |    |             |        |    |             |        |     |             |        |   |             |        |   |             |        |     |             |        |   |             |      |    |          |      |   |          |      |   |          |      |   |          |      |   |      |        |    |             |



| EMV | Test Certificates | Maritime application |
|-----|-------------------|----------------------|
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[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



| Maritime application | other | Railway |
|----------------------|-------|---------|
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[Confirmation](#)

[Miscellaneous](#)

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| Environment |
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[Environmental Confirmations](#)



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10/23/2025