



Figure similar

SIMATIC S7-300, Counter module FM 350-2, 8 channels, 20 kHz, 24 V encoder for counting, frequency measurement, speed measurement, period duration measurement, dosing incl. configuration package and electronic documentation on CD-ROM

| Supply voltage                                         |                                  |
|--------------------------------------------------------|----------------------------------|
| Auxiliary voltage 1L+, load voltage 2L+                |                                  |
| • Rated value (DC)                                     | 24 V                             |
| • permissible range, lower limit (DC)                  | 20.4 V                           |
| • permissible range, upper limit (DC)                  | 28.8 V                           |
| Input current                                          |                                  |
| from load voltage L+ (without load), max.              | 150 mA                           |
| from backplane bus 5 V DC, max.                        | 100 mA                           |
| Encoder supply                                         |                                  |
| NAMUR encoder supply                                   |                                  |
| • 8.2 V                                                | Yes                              |
| • Short-circuit protection                             | Yes                              |
| • Output current, max.                                 | 200 mA                           |
| Power loss                                             |                                  |
| Power loss, typ.                                       | 10 W                             |
| Digital inputs                                         |                                  |
| Number of digital inputs                               | 8                                |
| Number of NAMUR inputs                                 | 8                                |
| Functions                                              | 1 each for gate start/ gate stop |
| Input voltage                                          |                                  |
| • for signal "0"                                       | -3 to +5V                        |
| • for signal "1"                                       | 11 to 30.2 V                     |
| Input current                                          |                                  |
| • for signal "0", max. (permissible quiescent current) | 2 mA                             |
| • for signal "1", typ.                                 | 9 mA                             |
| for NAMUR encoders                                     |                                  |
| — for signal "0", max.                                 | 1.2 mA                           |
| — for signal "1", min.                                 | 2.1 mA                           |
| Input delay (for rated value of input voltage)         |                                  |
| • Input frequency, max.                                | 20 kHz                           |
| for standard inputs                                    |                                  |
| — at "0" to "1", max.                                  | 50 µs                            |
| for NAMUR inputs                                       |                                  |
| — at "0" to "1", max.                                  | 50 µs                            |
| Cable length                                           |                                  |
| • shielded, max.                                       | 100 m                            |
| Digital outputs                                        |                                  |
| Number of digital outputs                              | 8                                |
| Short-circuit protection                               | Yes                              |
| Limitation of inductive shutdown voltage to            | L+ (-40 V)                       |

|                                                                                               |                                      |
|-----------------------------------------------------------------------------------------------|--------------------------------------|
| <b>Output voltage</b>                                                                         |                                      |
| • for signal "1", min.                                                                        | L+ (-0.8 V)                          |
| <b>Output current</b>                                                                         |                                      |
| • for signal "1" rated value                                                                  | 0.5 A                                |
| • for signal "0" residual current, max.                                                       | 0.5 mA                               |
| <b>Output delay with resistive load</b>                                                       |                                      |
| • "0" to "1", max.                                                                            | 300 µs                               |
| <b>Switching frequency</b>                                                                    |                                      |
| • with resistive load, max.                                                                   | 500 Hz                               |
| • with inductive load, max.                                                                   | 0.5 Hz                               |
| <b>Total current of the outputs (per group)</b>                                               |                                      |
| horizontal installation                                                                       |                                      |
| — up to 40 °C, max.                                                                           | 4 A                                  |
| — up to 60 °C, max.                                                                           | 2 A                                  |
| all other mounting positions                                                                  |                                      |
| — up to 40 °C, max.                                                                           | 2 A                                  |
| <b>Cable length</b>                                                                           |                                      |
| • shielded, max.                                                                              | 600 m                                |
| • unshielded, max.                                                                            | 100 m                                |
| <b>Encoder</b>                                                                                |                                      |
| <b>Connectable encoders</b>                                                                   |                                      |
| • Incremental encoder (asymmetrical)                                                          | Yes                                  |
| • 24 V initiator                                                                              | Yes                                  |
| • 24 V directional element                                                                    | Yes                                  |
| • NAMUR encoder                                                                               | Yes; to DIN 19 234                   |
| • 2-wire sensor                                                                               | Yes                                  |
| <b>Interrupts/diagnostics/status information</b>                                              |                                      |
| Diagnostics function                                                                          | Yes; Diagnostic information readable |
| <b>Alarms</b>                                                                                 |                                      |
| • Diagnostic alarm                                                                            | Yes; Parameterizable                 |
| • Hardware interrupt                                                                          | Yes; Parameterizable                 |
| <b>Diagnostics indication LED</b>                                                             |                                      |
| • Group error SF (red)                                                                        | Yes                                  |
| <b>Counter</b>                                                                                |                                      |
| Number of counter inputs                                                                      | 8; 32 bit or ±31 bit                 |
| <b>Counter input 24 V</b>                                                                     |                                      |
| • Input voltage for signal "0"                                                                | -3 to +5V                            |
| • Input voltage for signal "1"                                                                | 11 to 30.2 V                         |
| • Input current for signal "1", typ.                                                          | 9 mA                                 |
| • Counting frequency, max.                                                                    | 20 kHz; Incremental encoder: 10 kHz  |
| <b>Potential separation</b>                                                                   |                                      |
| <b>Potential separation digital inputs</b>                                                    |                                      |
| • between the channels and backplane bus                                                      | Yes; and shielding                   |
| <b>Potential separation digital outputs</b>                                                   |                                      |
| • between the channels and backplane bus                                                      | Yes; and shielding                   |
| <b>Potential separation counter</b>                                                           |                                      |
| • between the channels and backplane bus                                                      | Yes; and shielding                   |
| <b>connection method / header</b>                                                             |                                      |
| required front connector                                                                      | 1x 40-pin                            |
| <b>Dimensions</b>                                                                             |                                      |
| Width                                                                                         | 80 mm                                |
| Height                                                                                        | 125 mm                               |
| Depth                                                                                         | 120 mm                               |
| <b>Weights</b>                                                                                |                                      |
| Weight, approx.                                                                               | 460 g                                |
| <b>last modified:</b>                                                                         |                                      |
| 8/24/2021  |                                      |