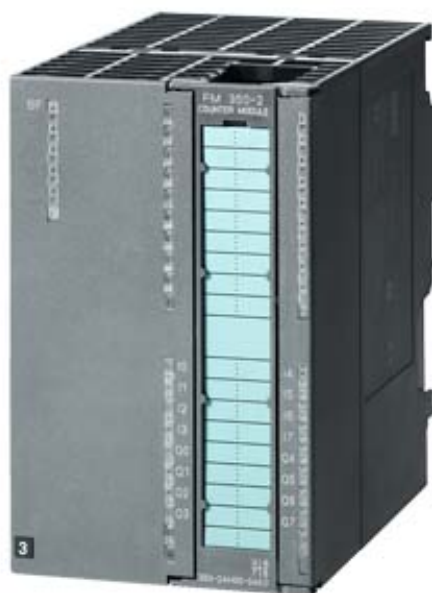




SIMATIC S7-300,  
COUNTER MODULE FM 350-2, 8 CHANNELS,  
20 KHZ, 24V ENCODER FOR COUNTING,  
MEASURING FREQUENCIES,  
SPEED MEASUREMENT,  
PERIOD DURATION MEASUREMENT AND  
PROPORTIONING INCL. CONFIG. PACKAGE AND  
ELECTRONIC DOCU ON CD

| Supply voltage                            |                                   |
|-------------------------------------------|-----------------------------------|
| Aux. voltage 1L+, load voltage 2 L+       |                                   |
| 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                            |                                   |
| Output voltage                            | NAMUR-encoder supply: 8.2 V +/-2% |
| Output current, rated value               | 200 mA                            |
| Output current                            |                                   |
| Short-circuit protection                  | Yes                               |
| Power losses                              |                                   |
| Power loss, typ.                          | 10 W                              |
| Digital inputs                            |                                   |
| Number/binary inputs                      | 8                                 |
| Functions                                 | 1 each for gate start/ gate stop  |

|                                                       |              |
|-------------------------------------------------------|--------------|
| <b>Input voltage</b>                                  |              |
| for signal "0"                                        | -3 to +5 V   |
| for signal "1"                                        | 11 to 30.2 V |
| <b>Input current</b>                                  |              |
| for signal "0", max. (permissible quiescent current)  | 2 mA         |
| for signal "1", typ.                                  | 9 mA         |
| <b>Input delay (for rated value of input voltage)</b> |              |
| for standard inputs                                   |              |
| at "0" to "1", max.                                   | 50 µs        |
| <b>Cable length</b>                                   |              |
| Cable length, shielded, max.                          | 100 m        |
| <b>Digital outputs</b>                                |              |
| Number/binary outputs                                 | 8            |
| Functionality/short-circuit strength                  | 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>Aggregate current of 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>                                   |              |
| Cable length, shielded, max.                          | 600 m        |
| Cable length 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                                      |
| 2-wire sensor                                                       | Yes                                      |
| <b>NAMUR encoder</b>                                                |                                          |
| Number of NAMUR inputs                                              | 8                                        |
| Input signal                                                        | to DIN 19 234                            |
| Input current, for signal "0", max.                                 | 1.2 mA                                   |
| Input current, for signal "1", min.                                 | 2.1 mA                                   |
| Input delay, max.                                                   | 50 µs                                    |
| Input frequency, max.                                               | 20 kHz                                   |
| Cable length, shielded, max.                                        | 100 m                                    |
| <b>Interrupts/diagnostics/status information</b>                    |                                          |
| <b>Alarms</b>                                                       |                                          |
| Diagnostic alarm                                                    | Yes ; Parameterizable                    |
| Hardware interrupt                                                  | Yes ; Parameterizable                    |
| <b>Diagnostic messages</b>                                          |                                          |
| Diagnostic functions                                                | Yes ; Diagnostic information readable    |
| <b>Diagnostics indication LED</b>                                   |                                          |
| Group error SF (red)                                                | Yes                                      |
| <b>Counter</b>                                                      |                                          |
| <b>Counter input 24 V</b>                                           |                                          |
| Number                                                              | 8 ; 32 bit or +/-31 bit                  |
| Input voltage, for signal "0"                                       | -3 to +5 V                               |
| Input voltage, for signal "1"                                       | 11 to 30.2 V                             |
| Input current, for signal "0", max. (permissible quiescent current) | 2 mA                                     |
| Input current, for signal "1", typ.                                 | 9 mA                                     |
| Input delay, max.                                                   | 50 µs                                    |
| Counting frequency, max.                                            | 20 kHz ; Incremental encoder: 10 kHz     |
| Cable length, max.                                                  | 100 m                                    |
| <b>Galvanic isolation</b>                                           |                                          |
| <b>Galvanic isolation digital inputs</b>                            |                                          |
| between the channels and the backplane bus                          | Yes ; and shielding                      |
| between the channels and the backplane bus (NAMUR)                  | yes, against backplane bus and shielding |
| <b>Galvanic isolation digital outputs</b>                           |                                          |
| between the channels and the backplane bus                          | Yes ; and shielding                      |
| <b>Galvanic isolation counter</b>                                   |                                          |
| between the channels and the backplane bus                          | Yes ; and shielding                      |

| Connection method        |              |
|--------------------------|--------------|
| required front connector | 1x 40-pin    |
| Dimensions               |              |
| Width                    | 80 mm        |
| Height                   | 125 mm       |
| Depth                    | 120 mm       |
| Weight                   |              |
| Weight, approx.          | 460 g        |
| Status                   | Feb 25, 2013 |