

SIMATIC S7-300, FM 354 SUBMODULE FOR POSITIONING WITH SERVOMOTORS, MODULE EXCHANGE W/O PG, PREREQUISITE STEP7 V3.1 INCL. CONFIG. PACKAGE ON CD



### Supply voltage

Rated value (DC)

- 24 V DC

Yes

### Input current

Current consumption, max.

350 mA

### Encoder supply

5 V encoder supply

- 5 V
- Output current, max.
- Cable length, max.

Yes

220 mA

35 m

24 V encoder supply

- 24 V
- Output current, max.
- Cable length, max.

Yes

300 mA

100 m

### Power loss

Power loss, typ.

8 W

### Digital inputs

|                                                           |                                                                                                                                                            |
|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Number of digital inputs                                  | 4                                                                                                                                                          |
| Functions                                                 | Reference cams, flying actual value setting, flying measurement, start/stop positioning, external block change                                             |
| <b>Input voltage</b>                                      |                                                                                                                                                            |
| • Rated value (DC)                                        | 24 V                                                                                                                                                       |
| • for signal "0"                                          | -3 to +5V                                                                                                                                                  |
| • for signal "1"                                          | +11 to +30V                                                                                                                                                |
| <b>Input current</b>                                      |                                                                                                                                                            |
| • for signal "0", max. (permissible quiescent current)    | 2 mA                                                                                                                                                       |
| • for signal "1", typ.                                    | 6 mA; 6 to 15 mA                                                                                                                                           |
| <b>Digital outputs</b>                                    |                                                                                                                                                            |
| Number of digital outputs                                 | 4                                                                                                                                                          |
| Functions                                                 | Position reached: stop, axis travels forward, axis travels back, change M-function M97, change M-function M98, start enable, direct output via data record |
| Short-circuit protection                                  | Yes                                                                                                                                                        |
| <b>Output voltage</b>                                     |                                                                                                                                                            |
| • Rated value (DC)                                        | 24 V                                                                                                                                                       |
| • for signal "1", min.                                    | UP -3 V                                                                                                                                                    |
| <b>Output current</b>                                     |                                                                                                                                                            |
| • for signal "1" permissible range for 0 to 55 °C, max.   | 0.6 A; with UPmax                                                                                                                                          |
| • for signal "0" residual current, max.                   | 2 mA                                                                                                                                                       |
| <b>Encoder</b>                                            |                                                                                                                                                            |
| <b>Connectable encoders</b>                               |                                                                                                                                                            |
| • Incremental encoder (symmetrical)                       | Yes                                                                                                                                                        |
| • Absolute encoder (SSI)                                  | Yes                                                                                                                                                        |
| <b>Encoder signals, incremental encoder (symmetrical)</b> |                                                                                                                                                            |
| • Trace mark signals                                      | A, notA, B, notB                                                                                                                                           |
| • Zero mark signal                                        | N, notN                                                                                                                                                    |
| • Input voltage                                           | 5 V difference signal (phys. RS 422)                                                                                                                       |
| • Input frequency, max.                                   | 1 MHz                                                                                                                                                      |
| <b>Encoder signals, absolute encoder (SSI)</b>            |                                                                                                                                                            |
| • Input signal                                            | 5 V difference signal (phys. RS 422)                                                                                                                       |
| • Data signal                                             | DATA, notDATA                                                                                                                                              |
| • Clock signal                                            | CL, notCL                                                                                                                                                  |
| • Telegram length, parameterizable                        | 13, 21 or 25 bit                                                                                                                                           |
| • Clock frequency, max.                                   | 1.25 Mbit/s                                                                                                                                                |
| • Cable length, shielded, max.                            | 100 m; 10 m at 1.25 Mbit/s, 100 m at max. 125 kbit/s                                                                                                       |
| <b>Drive interface</b>                                    |                                                                                                                                                            |
| <b>Signal Input</b>                                       |                                                                                                                                                            |

|                                                          |                                                                                                |
|----------------------------------------------------------|------------------------------------------------------------------------------------------------|
| • Type                                                   | Input loop controller message, isolated (optocoupler)                                          |
| • Function                                               | "Drive ready"                                                                                  |
| • Input voltage, rated value (DC)                        | 24 V                                                                                           |
| • Input voltage for signal "0"                           | -3 to +5V                                                                                      |
| • Input voltage for signal "1"                           | +15 to +30V                                                                                    |
| • Input current, for signal "1"                          | 2 to 6 mA                                                                                      |
| <b>Analog drive</b>                                      |                                                                                                |
| <b>Setpoint signal</b>                                   |                                                                                                |
| — Rated voltage range                                    | -10 to +10V                                                                                    |
| — Output current                                         | -3 to +3 mA                                                                                    |
| — Cable length, max.                                     | 35 m                                                                                           |
| <b>Output controller enable</b>                          |                                                                                                |
| — Switching voltage, max.                                | 50 V                                                                                           |
| — Switching current, max.                                | 1 A                                                                                            |
| — Switching capacity, max.                               | 30 V·A                                                                                         |
| <b>Potential separation</b>                              |                                                                                                |
| <b>Potential separation digital inputs</b>               |                                                                                                |
| • Potential separation digital inputs                    | No                                                                                             |
| <b>Potential separation digital outputs</b>              |                                                                                                |
| • Potential separation digital outputs                   | No                                                                                             |
| <b>Degree and class of protection</b>                    |                                                                                                |
| Degree of protection acc. to EN 60529                    |                                                                                                |
| • IP20                                                   | Yes                                                                                            |
| <b>Ambient conditions</b>                                |                                                                                                |
| <b>Ambient temperature during operation</b>              |                                                                                                |
| • min.                                                   | 0 °C                                                                                           |
| • max.                                                   | 55 °C                                                                                          |
| <b>Ambient temperature during storage/transportation</b> |                                                                                                |
| • min.                                                   | -40 °C                                                                                         |
| • max.                                                   | 70 °C                                                                                          |
| <b>Connection method</b>                                 |                                                                                                |
| required front connector                                 | 1x 20-pin                                                                                      |
| <b>Dimensions</b>                                        |                                                                                                |
| Width                                                    | 80 mm                                                                                          |
| Height                                                   | 125 mm                                                                                         |
| Depth                                                    | 118 mm                                                                                         |
| <b>Weights</b>                                           |                                                                                                |
| Weight, approx.                                          | 550 g                                                                                          |
| <b>last modified:</b>                                    | 10/17/2018  |