



SIMATIC S7-400, cam control system FM 452, electronic incl. configuration package on CD

| Supply voltage                                          |                                                                                                                        |
|---------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| Rated value (DC)                                        | 24 V                                                                                                                   |
| Input current                                           |                                                                                                                        |
| Current consumption, max.                               | 500 mA                                                                                                                 |
| Encoder supply                                          |                                                                                                                        |
| 5 V encoder supply                                      |                                                                                                                        |
| • 5 V                                                   | Yes                                                                                                                    |
| • Output current, max.                                  | 300 mA                                                                                                                 |
| • Cable length, max.                                    | 32 m                                                                                                                   |
| 24 V encoder supply                                     |                                                                                                                        |
| • 24 V                                                  | Yes                                                                                                                    |
| • Output current, max.                                  | 300 mA                                                                                                                 |
| • Cable length, max.                                    | 100 m                                                                                                                  |
| Power loss                                              |                                                                                                                        |
| Power loss, typ.                                        | 8.1 W                                                                                                                  |
| Digital inputs                                          |                                                                                                                        |
| Number of digital inputs                                | 11                                                                                                                     |
| Functions                                               | Reference point switch, flying actual value setting/length measurement, brake release, enable track output no. 3 to 10 |
| Input voltage                                           |                                                                                                                        |
| • Rated value (DC)                                      | 24 V                                                                                                                   |
| • for signal "0"                                        | -28.8 ... +5V                                                                                                          |
| • for signal "1"                                        | +11 to +28.8V                                                                                                          |
| Input current                                           |                                                                                                                        |
| • for signal "0", max. (permissible quiescent current)  | 2 mA                                                                                                                   |
| • for signal "1", typ.                                  | 9 mA                                                                                                                   |
| Digital outputs                                         |                                                                                                                        |
| Number of digital outputs                               | 16                                                                                                                     |
| Functions                                               | Cam track                                                                                                              |
| Short-circuit protection                                | Yes                                                                                                                    |
| Output voltage                                          |                                                                                                                        |
| • Rated value (DC)                                      | 24 V                                                                                                                   |
| • for signal "1", min.                                  | UP - 0.8 V                                                                                                             |
| Output current                                          |                                                                                                                        |
| • for signal "1" permissible range for 0 to 55 °C, max. | 600 mA; with UPmax                                                                                                     |
| • for signal "0" residual current, max.                 | 0.5 mA                                                                                                                 |
| Encoder                                                 |                                                                                                                        |
| Connectable encoders                                    |                                                                                                                        |
| • Incremental encoder (symmetrical)                     | Yes                                                                                                                    |
| • Incremental encoder (asymmetrical)                    | Yes                                                                                                                    |

|                                                     |                                                                     |
|-----------------------------------------------------|---------------------------------------------------------------------|
| • Absolute encoder (SSI)                            | Yes                                                                 |
| • 2-wire sensor                                     | Yes                                                                 |
| Encoder signals, incremental encoder (symmetrical)  |                                                                     |
| • 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                                                               |
| Encoder signals, incremental encoder (asymmetrical) |                                                                     |
| • Trace mark signals                                | A, B                                                                |
| • Zero mark signal                                  | N                                                                   |
| • Input voltage                                     | 24 V                                                                |
| • Input frequency, max.                             | 50 kHz; 50 kHz for 25 m cable length; 25 kHz for 100 m cable length |
| Encoder signals, absolute encoder (SSI)             |                                                                     |
| • Input signal                                      | 5 V difference signal (phys. RS 422)                                |
| • Data signal                                       | DATA, notDATA                                                       |
| • Clock signal                                      | CL, notCL                                                           |
| • Telegram length, parameterizable                  | 13 or 25 bit serial                                                 |
| • Clock frequency, max.                             | 1 MHz                                                               |
| • Gray code                                         | Yes                                                                 |
| • Cable length, shielded, max.                      | 300 m; at max. 125 kHz                                              |
| Potential separation                                |                                                                     |
| Potential separation digital inputs                 |                                                                     |
| • Potential separation digital inputs               | No                                                                  |
| Potential separation digital outputs                |                                                                     |
| • Potential separation digital outputs              | No                                                                  |
| Ambient conditions                                  |                                                                     |
| Ambient temperature during operation                |                                                                     |
| • min.                                              | 0 °C                                                                |
| • max.                                              | 55 °C                                                               |
| Ambient temperature during storage/transportation   |                                                                     |
| • min.                                              | -40 °C                                                              |
| • max.                                              | 70 °C                                                               |
| connection method                                   |                                                                     |
| required front connector                            | 1x 48-pin                                                           |
| Dimensions                                          |                                                                     |
| Width                                               | 25 mm                                                               |
| Height                                              | 290 mm                                                              |
| Depth                                               | 210 mm                                                              |
| Weights                                             |                                                                     |
| Weight, approx.                                     | 650 g                                                               |

last modified: 12/10/2024 