



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   |                       |
| <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, incremental encoder (asymmetrical)</b> |   |                       |
| • 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 |                       |
| <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 or 25 bit serial   |                       |
| • Clock frequency, max.                                    | 1 MHz   |                       |
| • Gray code  | Yes   |                       |
| • Cable length, shielded, max.                             | 300 m; at max. 125 kHz  |                       |
| <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>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 48-pin   |                       |
| <b>Dimensions</b>  |   |                       |
| Width  | 25 mm   |                       |
| Height   | 290 mm  |                       |
| Depth  | 210 mm  |                       |
| <b>Weights</b>   |   |                       |
| Weight, approx.  | 650 g   |                       |
| <b>Classifications</b>                                     |   |                       |
|  | <b>Version</b>  | <b>Classification</b> |
| eClass   | 14  | 27-24-22-05           |
| eClass   | 12  | 27-24-22-05           |
| eClass   | 9.1   | 27-24-22-05           |
| eClass   | 9   | 27-24-22-05           |
| eClass   | 8   | 27-24-22-05           |
| eClass   | 7.1   | 27-24-22-05           |
| eClass   | 6   | 27-24-22-05           |
| ETIM   | 10  | EC001422              |
| ETIM   | 9   | EC001422              |
| ETIM   | 8   | EC001422              |
| ETIM   | 7   | EC001422              |
| IDEA   | 4   | 3567                  |
| UNSPSC   | 15  | 32-15-17-05           |

Approvals / Certificates

General Product Approval



[Miscellaneous](#)



General Product Approval

EMV

For use in hazardous locations

[China RoHS](#)

[Miscellaneous](#)



[EM](#)

For use in hazardous locations

Maritime application



[Type Examination Certificate](#)



Maritime application



[NK / Nippon Kaiji Kyokai](#)



Maritime application

[CCS \(China Classification Society\)](#)

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