




SIMATIC S7-300, Counter module FM 350-1 for S7-300, Counter functions up to 500 kHz 1 channel for connection of 5 V and 24 V incremental encoders Isochronous mode; Measuring range types incl. configuration package on CD

| Supply voltage | |
|---|--|
| Auxiliary voltage 1L+, load voltage 2L+ | |
| <ul style="list-style-type: none"> Rated value (DC) | 24 V |
| <ul style="list-style-type: none"> permissible range, lower limit (DC) | 20.4 V; Dynamic 18.5 V |
| <ul style="list-style-type: none"> permissible range, upper limit (DC) | 28.8 V; dynamic 30.2 V |
| Input current | |
| from load voltage 1L+ (without load), max. | 40 mA |
| from backplane bus 5 V DC, max. | 160 mA |
| Encoder supply | |
| 5 V encoder supply | |
| <ul style="list-style-type: none"> 5 V | Yes; 5.2 V \pm 2 % |
| <ul style="list-style-type: none"> Output current, max. | 300 mA |
| 24 V encoder supply | |
| <ul style="list-style-type: none"> 24 V | Yes; 1L+ (-3 V) |
| <ul style="list-style-type: none"> Output current, max. | 400 mA |
| Power loss | |
| Power loss, typ. | 4.5 W |
| Digital inputs | |
| Number of digital inputs | 3 |
| Functions | 1 for gate start, 1 for gate stop, 1 for setting the counter |
| Input voltage | |
| <ul style="list-style-type: none"> for signal "0" | -28.8 ... +5V |
| <ul style="list-style-type: none"> for signal "1" | +11 to +28.8V |
| Input current | |
| <ul style="list-style-type: none"> for signal "1", typ. | 9 mA |
| Digital outputs | |
| Number of digital outputs | 2 |
| Short-circuit protection | Yes; Clocked electronically |
| Limitation of inductive shutdown voltage to | 2L+ (-39 V) |
| Output voltage | |
| <ul style="list-style-type: none"> for signal "0", max. | 3 V |
| <ul style="list-style-type: none"> for signal "1", min. | 2L+ (-1,5 V) |
| Output current | |
| <ul style="list-style-type: none"> for signal "1" rated value | 0.5 A |
| <ul style="list-style-type: none"> for signal "1" permissible range for 0 to 60 °C, min. | 5 mA |
| <ul style="list-style-type: none"> for signal "1" permissible range for 0 to 60 °C, max. | 0.6 A |
| Output delay with resistive load | |
| <ul style="list-style-type: none"> "0" to "1", max. | 300 μ s |
| Encoder | |

| | |
|---|---|
| Connectable encoders | |
| • Incremental encoder (symmetrical) | Yes; With 2 pulse trains offset by 90° |
| • Incremental encoder (asymmetrical) | Yes |
| • 24 V initiator | Yes |
| • 24 V directional element | Yes; 1 pulse train, 1 direction level |
| Counter | |
| Number of counter inputs | 1; 32 bit or ±31 bit |
| Counter input 5 V | |
| • Type | RS 422 |
| • Terminating resistor | 220 Ω |
| • Differential input voltage | 1,3 V |
| • Counting frequency, max. | 500 kHz |
| Counter input 24 V | |
| • Input voltage for signal "0" | -28.8 ... +5V |
| • Input voltage for signal "1" | +11 to +28.8V |
| • Input current for signal "1", typ. | 9 mA |
| • Counting frequency, max. | 200 kHz |
| • Minimum pulse width | 2.5 μs |
| Potential separation | |
| Potential separation digital inputs | |
| • between the channels and backplane bus | Yes; Optocoupler |
| Potential separation digital outputs | |
| • between the channels and backplane bus | Yes; Optocoupler |
| Potential separation counter | |
| • between the channels and backplane bus | Yes; Optocoupler |
| Isolation | |
| Isolation tested with | 500 V |
| connection method / header | |
| required front connector | 1x 20-pin |
| Dimensions | |
| Width | 40 mm |
| Height | 125 mm |
| Depth | 120 mm |
| Weights | |
| Weight, approx. | 250 g |
| last modified: | 1/16/2021  |