

SIMATIC S7/PCS7, digital output SM 322, 16 DO; 24 V DC / 0.5 A, diagnostics-capable, wire break detection with 0 and 1 signal, 1 x 40-pole, interface IM 153-X HF required



| Supply voltage                              |                    |
|---------------------------------------------|--------------------|
| Load voltage 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.   | 100 mA             |
| from backplane bus 5 V DC, max.             | 100 mA             |
| Power loss                                  |                    |
| Power loss, typ.                            | 6 W                |
| Digital outputs                             |                    |
| Number of digital outputs                   | 16                 |
| Short-circuit protection                    | Yes                |
| • Response threshold, typ.                  | 1.4 A; per channel |
| Limitation of inductive shutdown voltage to | L+ (-68 V)         |
| Switching capacity of the outputs           |                    |
| • on lamp load, max.                        | 5 W                |

|                                                           |              |
|-----------------------------------------------------------|--------------|
| Load resistance range                                     |              |
| • lower limit                                             | 48 $\Omega$  |
| • upper limit                                             | 4 k $\Omega$ |
| Output voltage                                            |              |
| • for signal "1", min.                                    | L+ (-0.7 V)  |
| Output current                                            |              |
| • for signal "1" rated value                              | 0.5 A        |
| • for signal "1" permissible range, min.                  | 5 mA         |
| • for signal "1" permissible range, max.                  | 0.6 A        |
| • for signal "0" residual current, max.                   | 0.7 mA       |
| Output delay with resistive load                          |              |
| • "0" to "1", max.                                        | 3 ms         |
| • "1" to "0", max.                                        | 3 ms         |
| Parallel switching of two outputs                         |              |
| • for uprating                                            | No           |
| • for redundant control of a load                         | Yes          |
| Switching frequency                                       |              |
| • with resistive load, max.                               | 100 Hz       |
| • with inductive load (acc. to IEC 60947-5-1, DC13), max. | 2 Hz         |
| • on lamp load, max.                                      | 10 Hz        |
| Total current of the outputs (per group)                  |              |
| horizontal installation                                   |              |
| — up to 60 °C, max.                                       | 2 A          |
| vertical installation                                     |              |
| — up to 40 °C, max.                                       | 2 A          |
| Cable length                                              |              |
| • shielded, max.                                          | 1 000 m      |
| • unshielded, max.                                        | 600 m        |
| Interrupts/diagnostics/status information                 |              |
| Alarms                                                    | Yes          |
| Diagnostics function                                      | Yes          |
| Alarms                                                    |              |
| • Diagnostic alarm                                        | Yes          |
| Diagnostic messages                                       |              |
| • Diagnostic information readable                         | Yes          |
| • Wire-break                                              | Yes          |
| • Short-circuit                                           | Yes          |
| • missing load voltage                                    | Yes          |
| Diagnostics indication LED                                |              |
| • Rated load voltage PWR (green)                          | No           |
| • Group error SF (red)                                    | Yes          |

- Status indicator digital output (green)
- Channel fault indicator F (red)

Yes  
Yes

## Potential separation

### Potential separation digital outputs

- between the channels
- between the channels, in groups of
- between the channels and backplane bus
- between the channels and the power supply of the electronics

No  
4  
Yes  
No

## Isolation

Isolation tested with

500 V DC

## Connection method

required front connector

1x 40-pin

## Dimensions

Width

40 mm

Height

125 mm

Depth

120 mm

## Weights

Weight, approx.

350 g

**last modified:**

06/09/2020