

SIMATIC S7-300, DIGITAL INPUT SM 321, OPTICALLY ISOLATED,
FOR EXPANDED TEMPERATURE RANGE, 16 DI, 24V DC, 20 PIN

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. | 25 mA |
| from backplane bus 5 V DC, max. | 10 mA |

Power loss

- | | |
|------------------|-------|
| Power loss, typ. | 3.5 W |
|------------------|-------|

Digital inputs

- | | |
|--------------------------|----|
| Number of digital inputs | 16 |
|--------------------------|----|

Number of simultaneously controllable inputs

all mounting positions

- | | |
|---------------------|----|
| — up to 40 °C, max. | 16 |
| — up to 60 °C, max. | 16 |

Input voltage

- | | |
|--------------------|------------|
| • Rated value (DC) | 24 V |
| • for signal "0" | -30 to +5V |
| • for signal "1" | 13 to 30V |

Input current

- | | |
|------------------------|------|
| • for signal "1", typ. | 9 mA |
|------------------------|------|

Input delay (for rated value of input voltage)

for standard inputs

- | | |
|-----------------------|--------|
| — at "0" to "1", min. | 1.2 ms |
| — at "0" to "1", max. | 4.8 ms |

Cable length

- | | |
|--------------------|---------|
| • shielded, max. | 1 000 m |
| • unshielded, max. | 600 m |

Encoder

Connectable encoders

- | | |
|---|--------|
| • 2-wire sensor | Yes |
| — permissible quiescent current (2-wire sensor), max. | 1.5 mA |

Potential separation

Potential separation digital inputs

- | | |
|--|------------------|
| • between the channels, in groups of | 16 |
| • between the channels and backplane bus | Yes; Optocoupler |

Isolation

Isolation tested with	500 V DC
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Connection method

required front connector	20-pin
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Dimensions

Width	40 mm
Height	125 mm
Depth	120 mm

Weights

Weight, approx.	200 g
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last modified: 08/15/2019