### 8.4.10 6ES5 451-4UA13/4UA14 Digital Output Module

|  | -4UA13 | -4UA14 |
| :---: | :---: | :---: |
| Rated supply voltage L+ | 24 V DC |  |
| Number of outputs | 32, short-circuit protected ${ }^{1)}$ |  |
| Isolation | Yes, 1 group of 32 outputs |  |
| Range for supply voltage | 20 to 30 V DC |  |
| Fusing | 6.3 A slow <br> 1 fuse per 8 outputs | 7 A fast <br> 1 fuse per 8 outputs |
| Output voltage for logic 1 for logic 0 | $\begin{aligned} & \mathrm{L}+-1,5 \mathrm{~V} \text { min. } \\ & 3 \mathrm{~V} \text { max. } \end{aligned}$ |  |
| Switching current (resistive, inductive load) | 5 mA to 0.5 A |  |
| Residual current at logic 0 | 0.5 mA max. |  |
| Switching current for lamps | 0.22 A max. ( 5 W ) |  |
| Switching frequency with resistive load with inductive load | 100 Hz max. <br> 2 Hz max. at $0.3 \mathrm{~A} ; 0.5 \mathrm{~Hz}$ max. at 0.5 A |  |
| Breaking voltage (inductive) | Limited to L+-47 V | Limited to L+ -55 V |
| Total switching current | 4 A max. per 8 outputs |  |
| Coincidence factor (total load capability) ventilated not ventilated | (in relation to the total switching current) 100 \% <br> $50 \%$; $100 \%$ up to $35^{\circ} \mathrm{C}$ |  |
| Permissible line length | 400 m max. unshielded |  |
| Power supply |  |  |
| Digital section from system bus | $5 \mathrm{~V}, 80 \mathrm{~mA}$ typical |  |
| Current consumption from L+/L- | $24 \mathrm{~V}, 150 \mathrm{~mA}$ typical | $24 \mathrm{~V}, 200 \mathrm{~mA}$ typical |
| Power dissipation (rated operation) | 17.0 W | 6.4 W |
| Enable input (F+/F-), |  |  |
| Rated input voltage | 24 V DC |  |
| Input voltage for logic 1 for logic 0 | $\begin{aligned} & 13 \text { to } 33 \mathrm{~V} \\ & -33 \text { to } 5 \mathrm{~V} \\ & \hline \end{aligned}$ |  |
| Rated input current | 5 mA |  |
| Permissible line length | 200 mmax . |  |
| Short-circuit monitoring |  |  |
| Short-circuit display | Red LED for 8 outputs |  |
| Signaling output (H+) | Common for all outputs. The signal " 1 " is generated when a short circuit occurs at an output. |  |
| Output voltage referred to $\mathrm{L}-$ (with feed at $1 \mathrm{~L}+$ ) for logic 1 for logic 0 | $1 \mathrm{~L}+-5 \mathrm{~V}$ min. 3 V max. | $\begin{aligned} & 1 \mathrm{~L}+-1,5 \mathrm{~V} \text { min. } \\ & 3 \mathrm{~V} \text { max. } \end{aligned}$ |
| Switching current | 10 mA max. limited |  |
| Voltage test to VDE 0160 | Between group and ground point: 500 V AC |  |
| Mechanical specifications |  |  |
| Dimensions (W x H x D) | $20 \mathrm{~mm} \times 255 \mathrm{~mm} \times 195 \mathrm{~mm}$ |  |
| Weight | Approx. 0.45 kg |  |

1) Short-circuit protection responds with line resistance $\leq 15$ ohms, irrelevant for the -4UA14.


| g | $=$ Green LED (status indicator) |
| :--- | :--- | :--- |
| r | $=$ Red LED (short-circuit indicator) |
| $\mathrm{F}+/ \mathrm{F}-$ | $=$ Enable input |

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[^0]:    1) Changeover of enable mode with jumper X20:

    Jumper inserted = Enable input active (factory setting)
    Jumper open = Enable input inactive.
    2) The terminal is not connected internally. When this terminal is connected to the output voltages, the clearances in air and leakage paths are no longer adequate to UL and CSA, but comply with VDE.
    3) By connecting $\mathrm{L}-$ to pin 42 , a leading and trailing connection to 0 V ground is created on the module when it is inserted and removed.

