5 Specifications of the Modules

5.1 Digital Input Module 6ES5420-4UA11 and 6ES5420-4UA12 (acc. to UL/CSA Requirements)

Rated input voltage	24 V DC
Number of inputs	32
Type of inputs	Non-floating
Input voltage	
"0" signal	-33 to 5 V
"1" signal	13 to 33 V
Rated input current	8.5 mA
Input frequency	max. 100 Hz
Delay	3 ms typ. (1.4 to 5 ms)
Input resistance	2.8 kohms (typ.)
Diversity factor (number of inputs "On" simultaneously)	100%
Permissible length of cable	max. 600 m, unshielded; max. 1000 m, shielded

Power supply

Digital section from system bus	5 V, typ. 80 mA
Supply voltage for 2-wire BERO proximity limit switches	22 to 33 V

Enable input (F+)

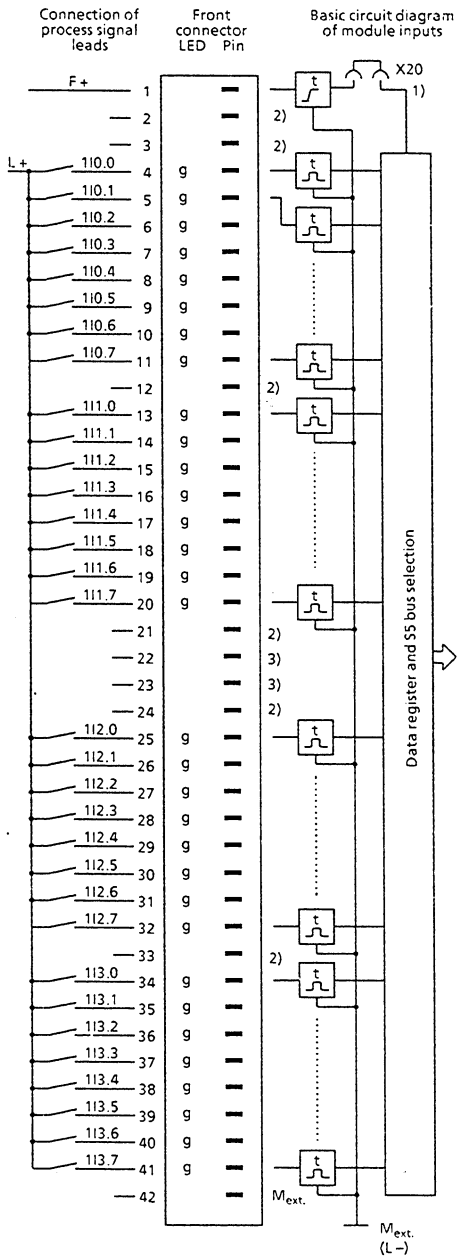
Rated input voltage	24 V DC
Input voltage	
"0" signal	-33 to 5 V
"1" signal	13 to 33 V
Rated input current	5 mA
Permissible length of cable	max. 200 m

Safety test

Impulse voltage test to IEC 255-4	Input to L-: U_S = 1 kV; 1.2/50 µs waveform
RIV (radio interference voltage) test to IEC 255-4	Input to L-: U_S = 1 kV; 1 MHz

Physical data

Dimensions (WxHxD)	20 mm x 255 mm x 195 mm (0.8 in x 10 in x 7.7 in)
Approx. weight	0.4 kg (1 lb.)



Example for the labelling of an input:

(1)I 1.5

- Input 5 (5th bit); Possible: 0 to 7
- Address of input byte (1st byte); Possible: 0 to 255
- I = Input
- 1st group (not specified in the address)

g = Green LED (status display)
F+ = Enabling input

L- of the power supply unit to reference potential (PE).

1) Enable mode switch (only applies to ...-4UA12), jumper inserted: enable input is active (factory setting)

2) The connection is not internally connected. Creepage and ventilation paths of 0.8mm have been retained. **Warning:** When connecting voltages in the input voltage area or above, these distances are, according to UL and CSA, not adequate. (But according to German standards (VDE) permissible).

3) The connection is not internally established. When connecting voltages in the input voltage area UL, CSA and the German standards (VDE) are met.