

Technical Description

115U Modules for S5 from Siemens

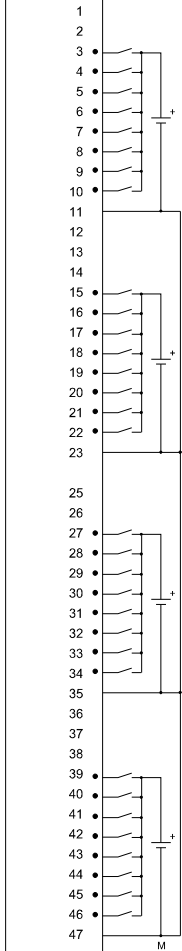
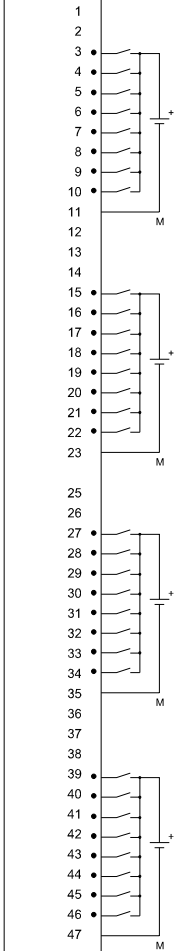
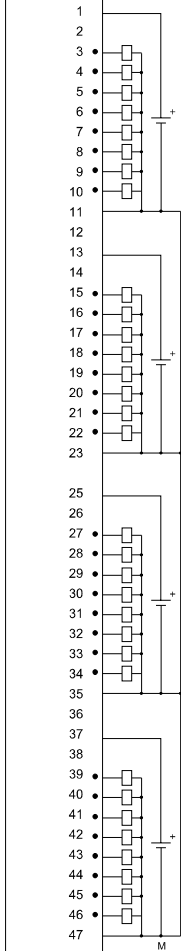
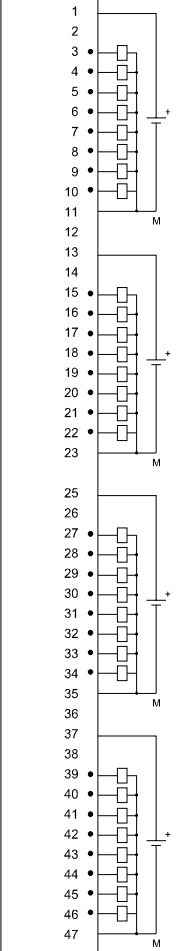
Order.-No.: VIPA DIO-HB35E
Rev. 99/49

Technical Data

	420-7LA11	430-7LA12	441-7LA12	451-7LA12
Number of inputs:	32	32	—	—
Number of outputs:	—	—	32	32
Galvanic isolation:	no	yes	no	Yes
- in groups to:	—	8	—	8
Inputs:				
Input voltage:				
- Nominal value:	DC 24 V	DC 24 V	—	—
- for Signal "0":	-30 V ... +5 V	-30 V ... +5 V	—	—
- for Signal "1":	+15 V ... +33 V	+15 V ... +33 V	—	—
Current at Signal "1":	8,5 mA	8,5 mA	—	—
Time delay:	1 ms ... 3 ms	1 ms ... 3 ms	—	—
Outputs:				
Supply voltage				
- Nominal value:	—	—	DC 24 V	DC 24 V
- Ripple $U_{s,max.}$:	—	—	3,6 V	3,6 V
- permissible:	—	—	18 V ... 33 V	18 V ... 33 V
- Value at $t < 0,5s$:	—	—	35 V	35 V
Output current				
- Nominal value:	—	—	0,5 A	0,5 A
- permissible:	—	—	5 mA ... 0,6 A	5 mA ... 0,6 A
Signal level of output				
- at Signal "0" max.:	—	—	2,5 V	2,5 V
- at Signal "1" max.:	—	—	Up-1V	Up-1V
Lamp load max.:	—	—	5 W	5 W
Short circuit protection:	—	—	electronic	electronic
Limiting the ind. gate turn-off voltage:	—	—	typ. -25V	typ. -25V
Operating frequency at				
- ohmic load max.:	—	—	1000 Hz	1000 Hz
- inductive load ¹ max.:	—	—	5 Hz	5 Hz
Total load capability				
- at 40°C:	100 %	100 %	100 %	100 %
- at 60°C:	100 %	100 %	80 %	80 %

¹ at inductive breaking energy 30 mJ

Technical Data continued

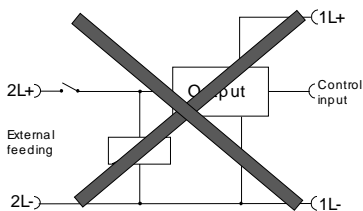
	420-7LA11	430-7LA12	441-7LA12	451-7LA12
Current consumption:				
- at 5V:	50 mA	50 mA	200 mA	200 mA
- external. 24V:	—	—	10 mA/Group	10 mA/Group
Nominal power loss:	6,5 W	6,5 W	10 W	10 W
Front connector:	46-pin	46-pin	46-pin	46-pin
Weight:	0,7 kg	0,7 kg	0,7 kg	0,7 kg
Front allocation:				

Comments

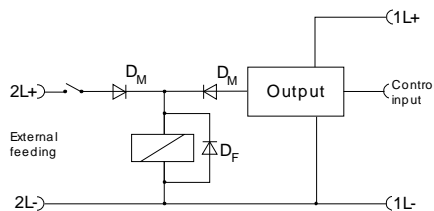
- With the non-floating modules 420-7LA11 and 441-7LA12 there has to be an external electrical connection on the central ground point between 5V ground (GND switchgear cubicle) and the 24V (GND power supply).
- It is not permitted to supply the modules 441-7LA12 and 451-7LA12 from an external feed (e.g. for manual operation via switch) direct on the outputs (see picture 1)

The following protective circuits are allowed.

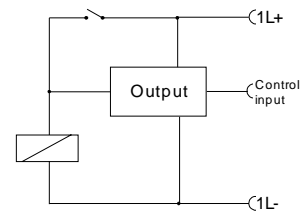
1. If there are separate power supplies for the operation of the Programmable Controller and the switches then the switching outputs have to be connected via the mixer diodes D_M (picture 2). Besides this a free-wheeling diode D_F is necessary because in this case the integrated free-wheeling diode does not work in this operation mode.
2. An alternative to this is to use one current supply for SPS and switching mode. (picture 3).



Picture 1



Picture 2



Picture 3