



AOV ND-X is programmable controlled unit providing the following functions:

- IMPULSE** - setting up short connecting time of each single exit \Rightarrow time of activation and deactivation of electromagnetic valves
- PAUSE** - setting up interval between following short connecting (IMPULSE) having ability to distinguish PAUSE1, PAUSE2 see further.

AOV ND-X is supplied by 230V/50Hz (if not required otherwise).

All parameters can be set in the MENU, which is divided into two groups:

Main menu: Windows:	Company name	CIPRES FILTR s r.o. Brno (CZ)
	Website	www.cipres.cz
	Phone and fax number	+420 545 220 506; +420 545 220 507
	Phone No. for service	+420 602 542 810
	Type of operation / No. of valves	NORMAL 24
	Settings of IMPULSE and PAUSE	225ms 20s
Service menu: Windows:	Enter PASSWORD	**** /only for service needs/
	Language selection	SERVICE MENU IN CZECH (GERMAN etc.)
	Setting the number of valves	1-32 according to type (1÷32, 2x 1÷16)
	Setting the length of IMPULSE	250ms (200÷600ms, step 25ms)
	Setting the length of PAUSE1	30s (5÷180s, step 5s)
	Setting the length of PAUSE2	15s (5÷100s, step 5s)

In the **main menu**, windows with information about the AOV-settings and about contacts to service and manufacturer are taking turns automatically in a cycle of about 5s. In various language versions, there is different information about the representation in a given region.

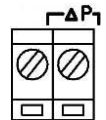
Enter the **service menu** by pressing + and - for a period of more than 3s. The values can be changed by buttons + or - , press the OK-button to confirm a value. At that moment, the next preset window will appear. If you do not press any button for a period of 30s, the system will automatically go to the main menu (you can speed that up by pressing the buttons + and - for a period of more than 3s).

Enter the PASSWORD	-press buttons \pm to enter a digit, press OK to go to the next one, a total of 4 characters
Language options	-select one of the 16 possible text versions (10 are used)
Set the number of valves	-set a certain number of valves, maximum number is 32, also 2x 1÷16 is possible
Set the impulse	-set impulse (200÷600ms, step 25ms)
Set the pause 1	-set pause (5÷180s, step 5s) for normal mode
Set the pause 2	-set pause (5÷100s, step 5s) for accelerated mode = ΔP is switched on

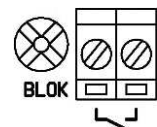
Enter the **PASSWORD** into the first dialogue window. After entering the correct PASSWORD, you can change the language version. If you enter a wrong password, you cannot change the language and this window is not displayed any more. But AOV is still functional, you can set IMPULSE, PAUSES 1 and 2 as well as NUMBER OF VALVES.

!WARNING! – only connection contacts, no foreign voltage may be connected here.

By connecting the ΔP -clamps, you start the **accelerated mode**. In this type of operation, the preset time of IMPULSE remains the same, but the length of PAUSE will change into PAUSE 2 according to the settings in the service menu.



This applies also for the **BLOCK**-clamps, which are standardly connected by a connector. The connector may be replaced by an external contact, which should be dimensioned for at least 24V/1A. When the BLOCK is disconnected, AOV is in operation, but voltage is not flowing into clamps for valves. Immediately after the BLOCK-clamps make contact, the AOV will continue in its normal activity and the outputs will switch on according to the program. This state results also in disconnection of the ALARM-clamps.





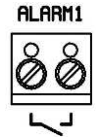
If you switch the **START**-jumper from 2s to 7s, the **start will be delayed** by about 7s. This function is used when operating two (2) AOVs in order to avoid simultaneous switching of the valves and thus a drop in air pressure in the distribution system.



Warning if a fuse is broken – if a fuse is broken, the LED next to the fuse will light up as signal light

Additional function – for an extra payment

The **ALARM**-clamps are relay outputs and they are used as information for a higher control system. If the ALARM(relay)-clamps make contact, it is a normal state. If a breakdown occurs (an AOV-fuse is blown, disconnection of the connector on the BLOCK-clamp, a faulty valve coil or an interrupted cable to the valve), the ALARM(relay)-clamps will disconnect.



The extension board **AOV 25/32** enables the increase in number of outputs from 24 to 32. This option has already been included in the program.

TECHNICAL PARAMETERS:

Supply voltage.....	230V~
Current consumption of the whole AOV during its operation.....	max. 400mA (secured by an internal fuse)
Voltage on outputs for valves.....	24V=
Max. current on outputs.....	1A (secured by an internal fuse)
Max. connection voltage on ALARM-clamps.....	24V
Type of signal ΔP.....	a potential-free switching contact
Type of signal BLOCK.....	a potential-free switching contact
Working temperature.....	-20÷70°C
Cover.....	IP65

AOV ND-X may be used in an environment without explosion hazard, this applies for the following types:

- AOV 5ND-8
- AOV 20ND-24
- AOV 20ND-32
- AOV 5ND-8 A
- AOV 20ND-24 A
- AOV 20ND-32 A

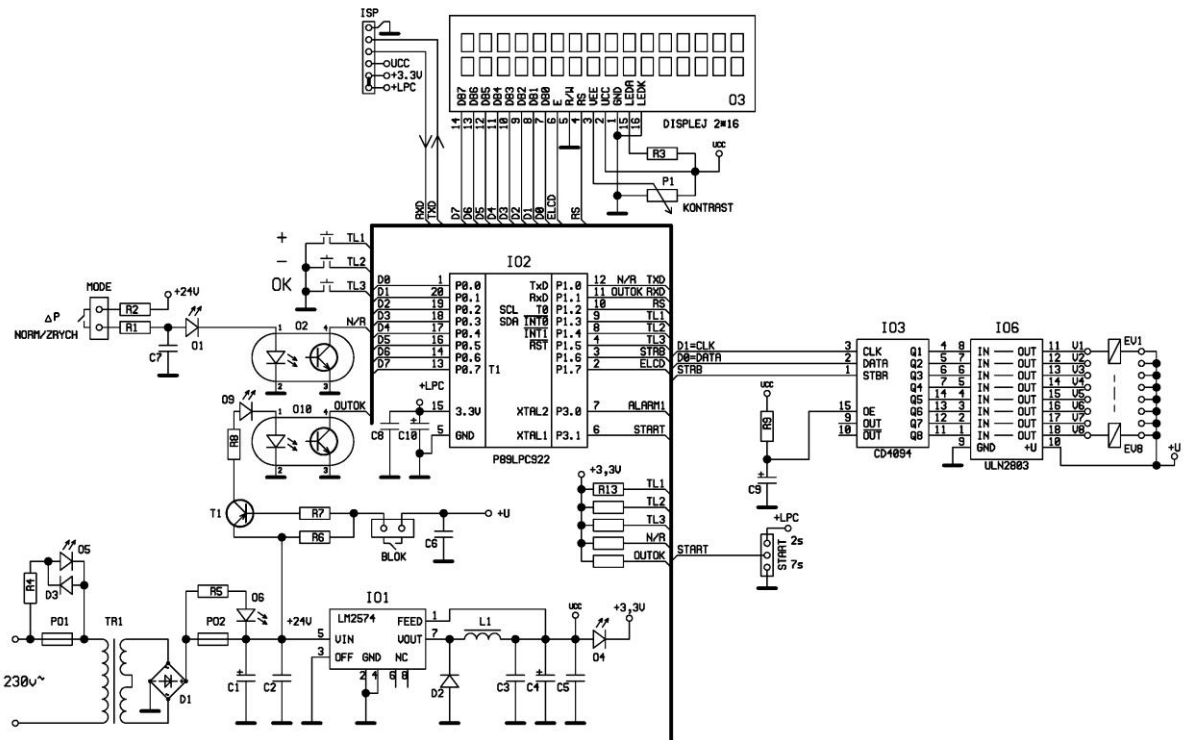
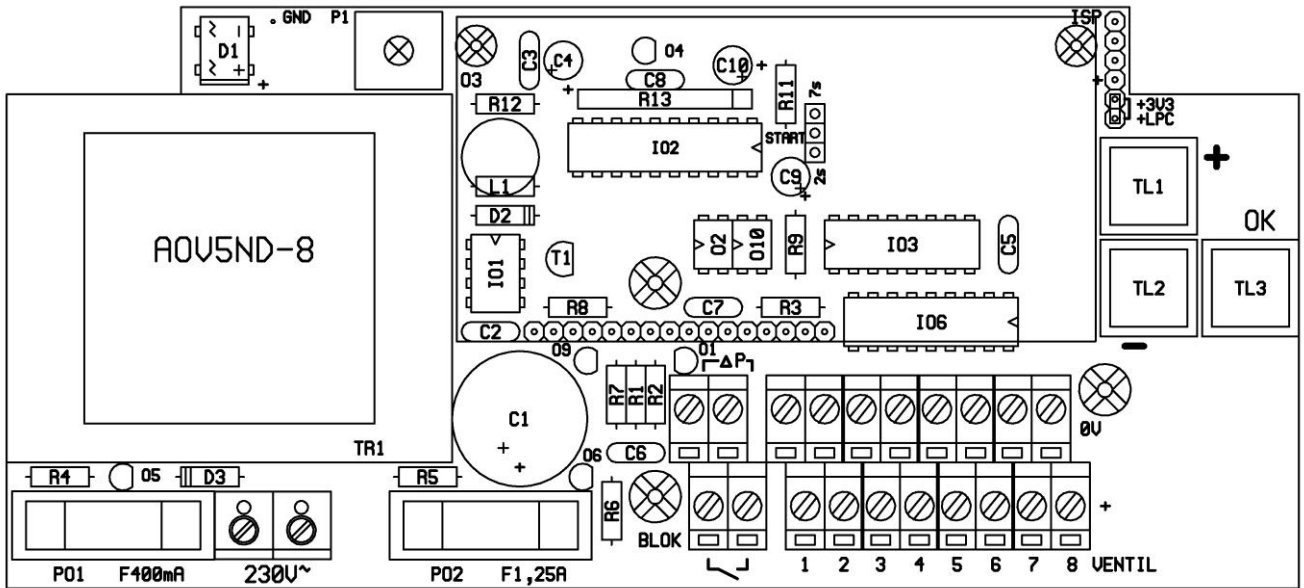
AOV ND-X may be used also in an explosion-hazard environment, this applies for the following types:

- X22N0 AOV 5ND-8
- X26N0 AOV 20ND-24
- X22N0 AOV 5ND-8 A
- X26N0 AOV 20ND-24 A



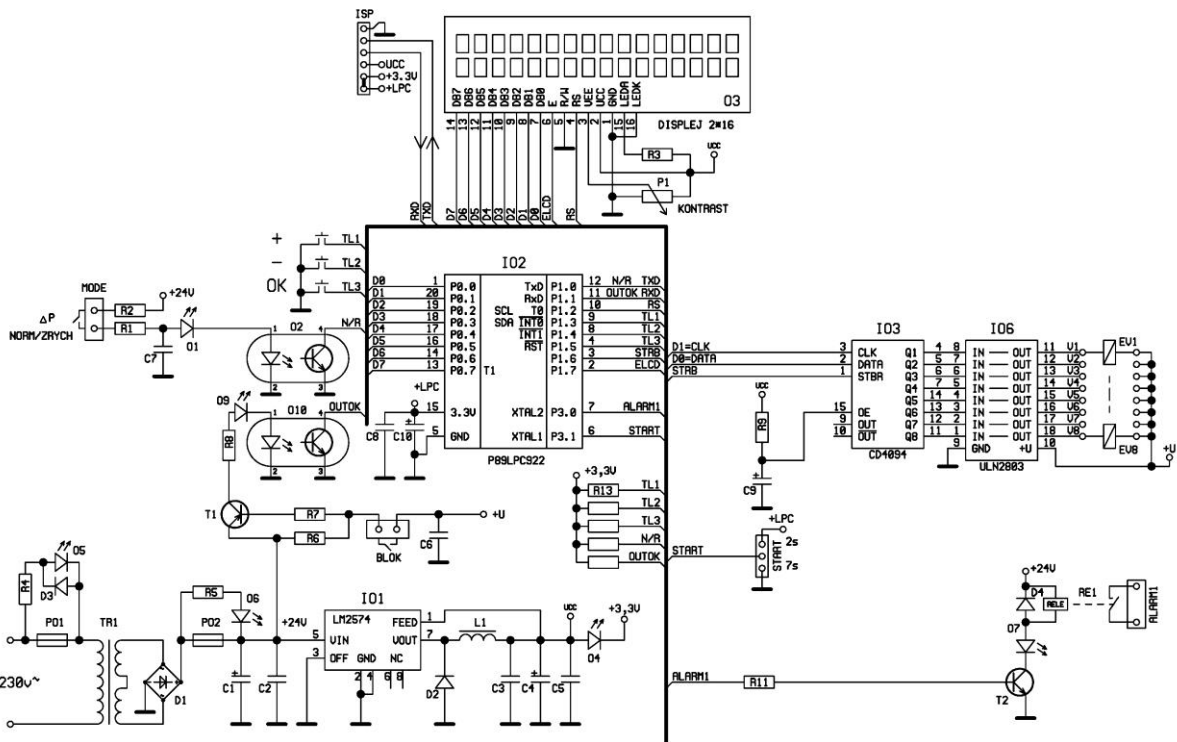
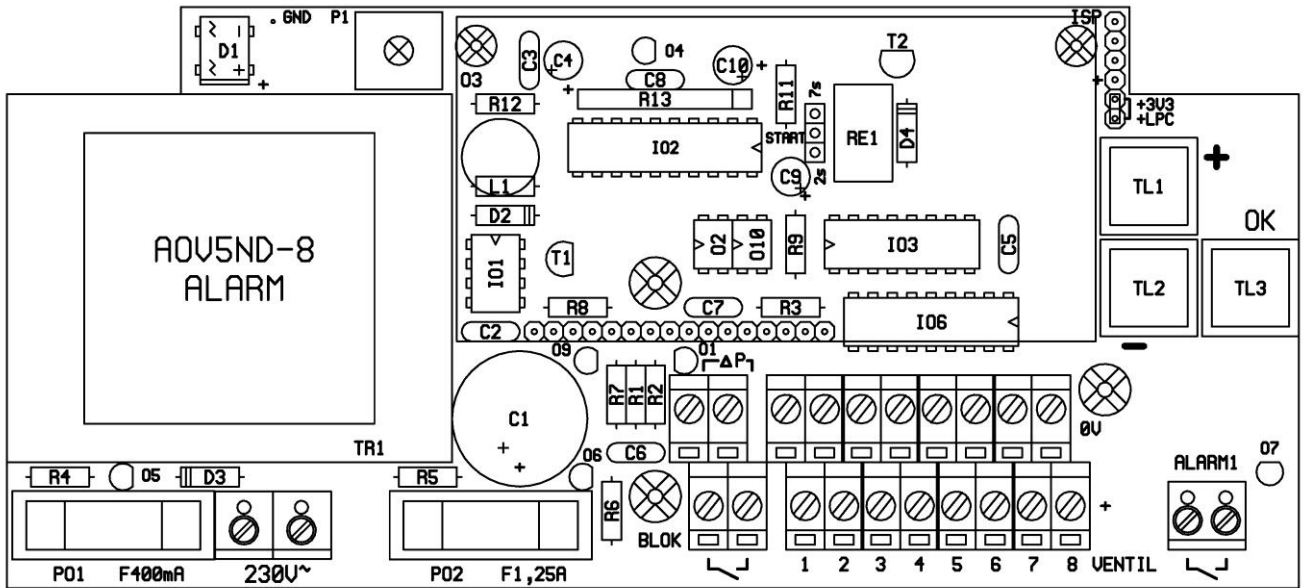
II 2 D T 50°C

AOV 5ND-8



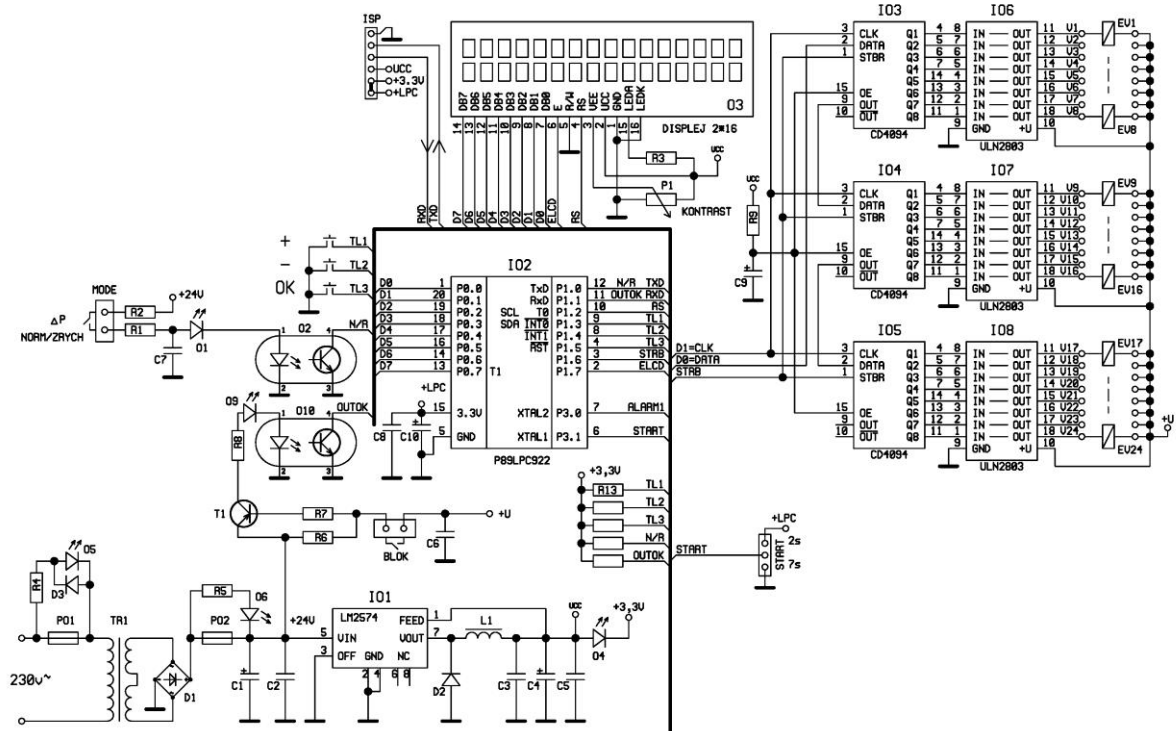
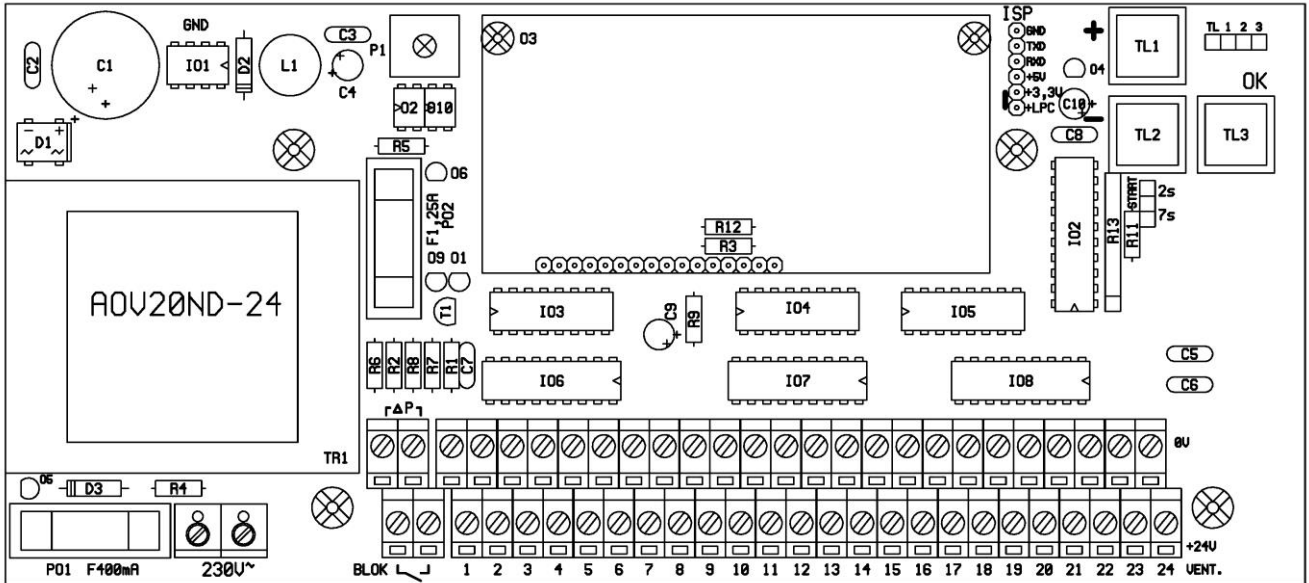
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	MATER. :		POCET LISTU :
	CSN		LIST CISLO :
JAN CHUDIK 687 09 Borsice tel/fax : 572 581589	montaz, udrzba a vyroba el. zarizeni	KRESLIL : ing. A. BLAHA SCHVALIL : Jan Chudik DATUM : 18.6.2006	AOV5ND-8 CISLO VYKRESU

AOV 5ND-8 A



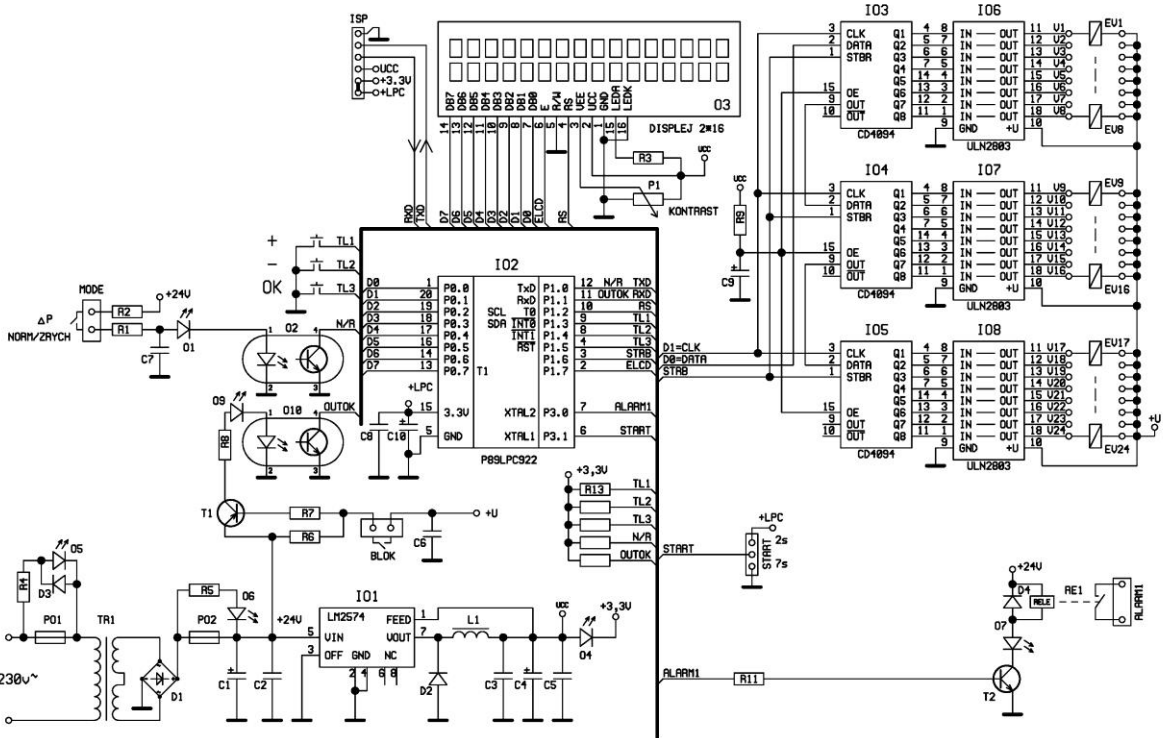
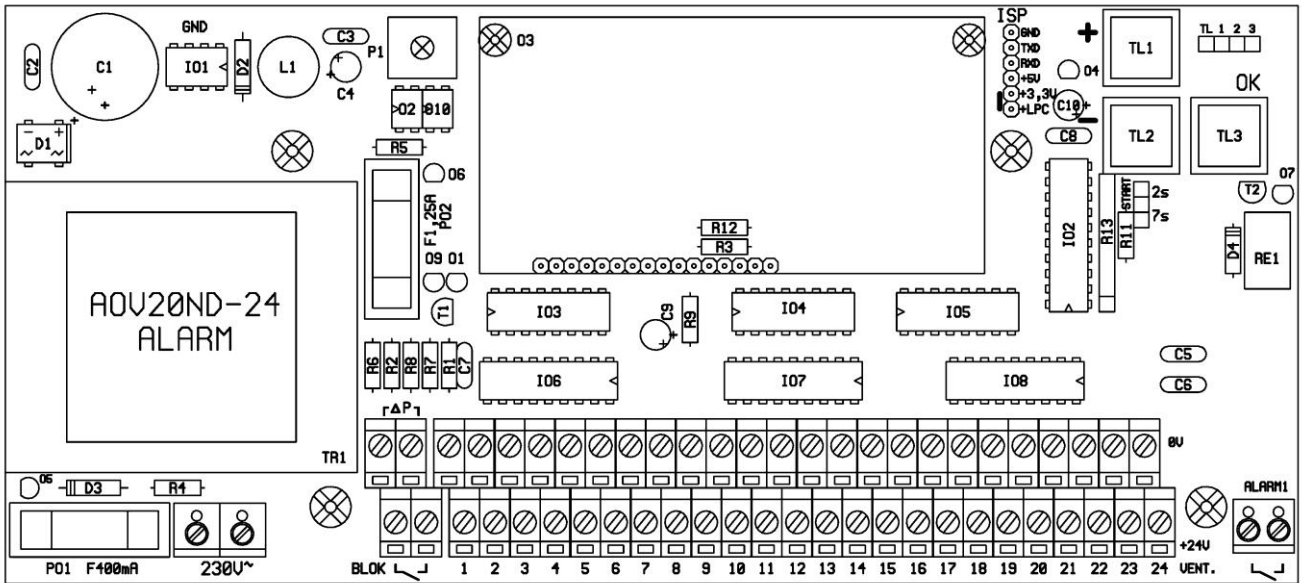
VERZIKO	ROZHER :		KUSOVNIK C.
	MATER. :		POCET LISTU :
	CSN		LIST CISLO :
JAN CHUDIK	montaz, udrzba a vyroba el. zarizeni	KRESLIL : Ing. R. BLAHA SCHVALIL : Jan Chudik	AOV5ND-8 ALARM
687 09 Borsice tel/fax : 572 581589		DATUM : 18.6.2006	CISLO VYKRESU

AOV 20ND-24



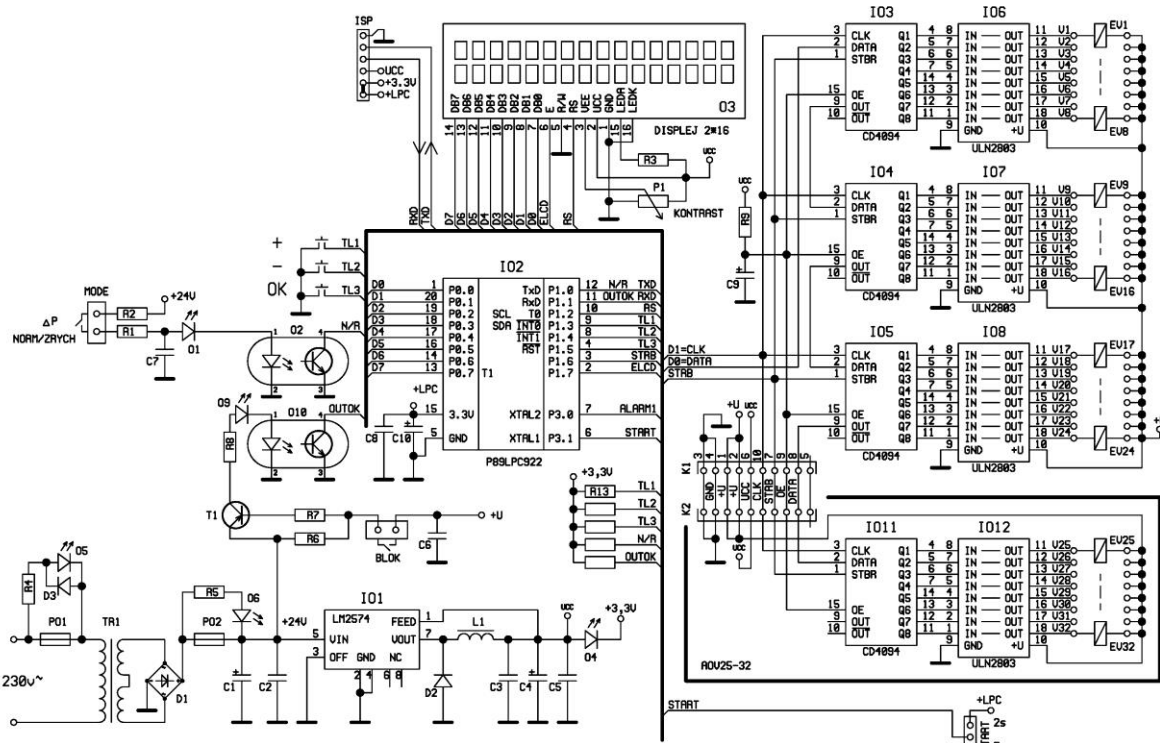
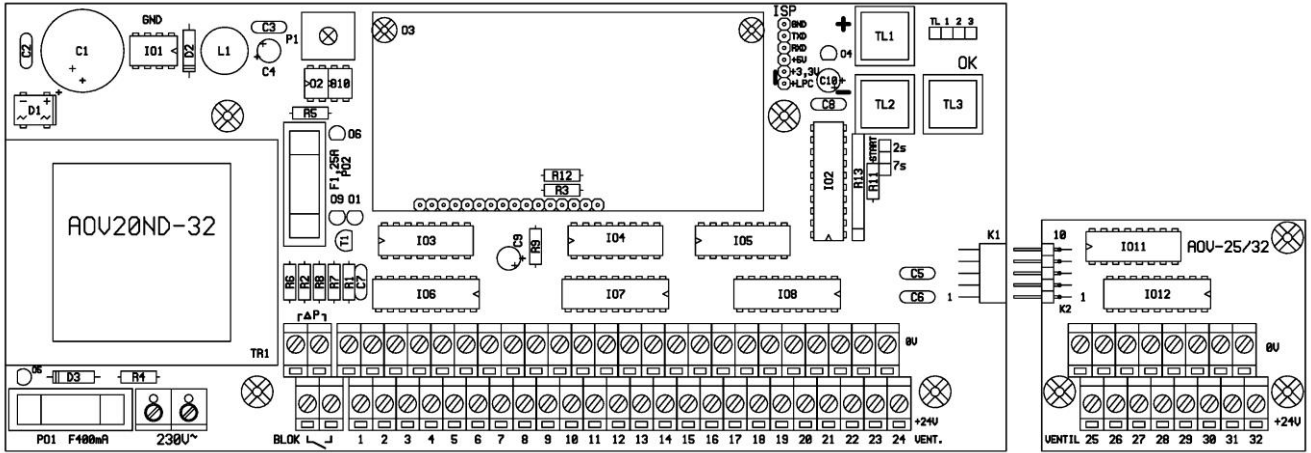
VERÍFIKO	ROZMER :		KUSOVNIK C.
	MATER. :		POCET LISTU :
	CSN		LIST CÍSLO :
JAN CHUDIK	montáž, údržba a výroba el. zařízení	KRESLIL : ing.R.BLAHA SCHVALIL : Jan Chudik DATUM : 18.6.2006	AOV20ND-24 CÍSLO ÚVĚŘESU

AOV 20ND-24 A



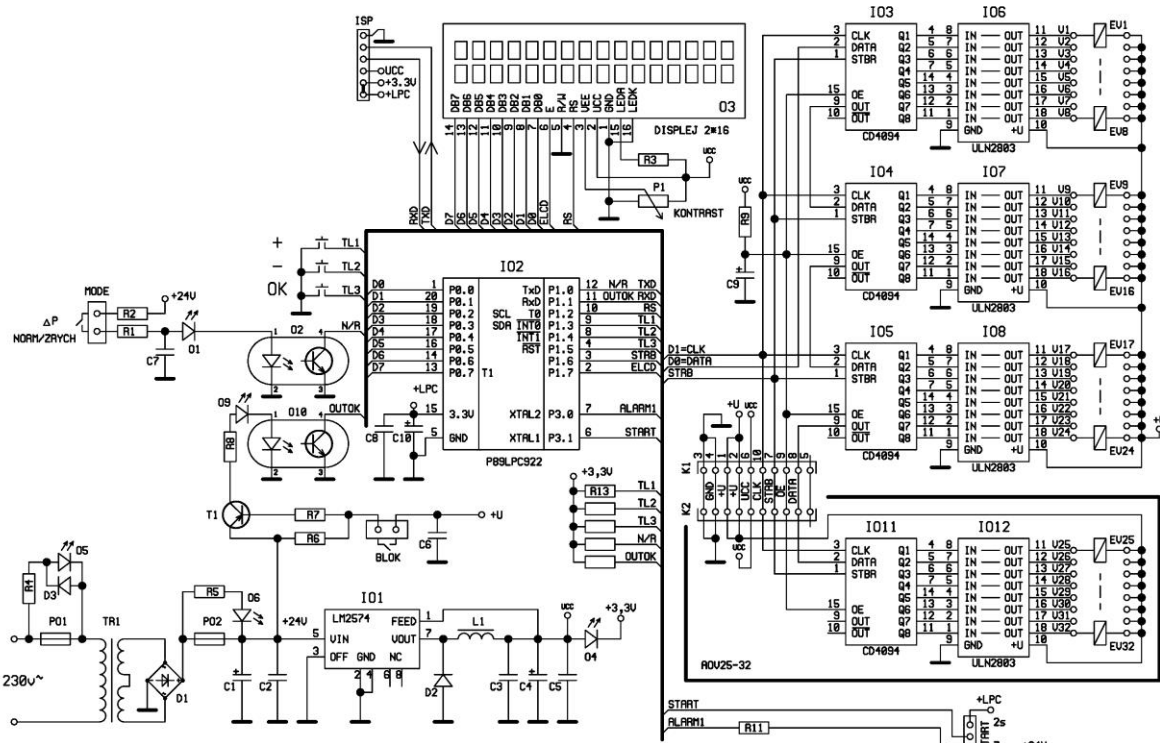
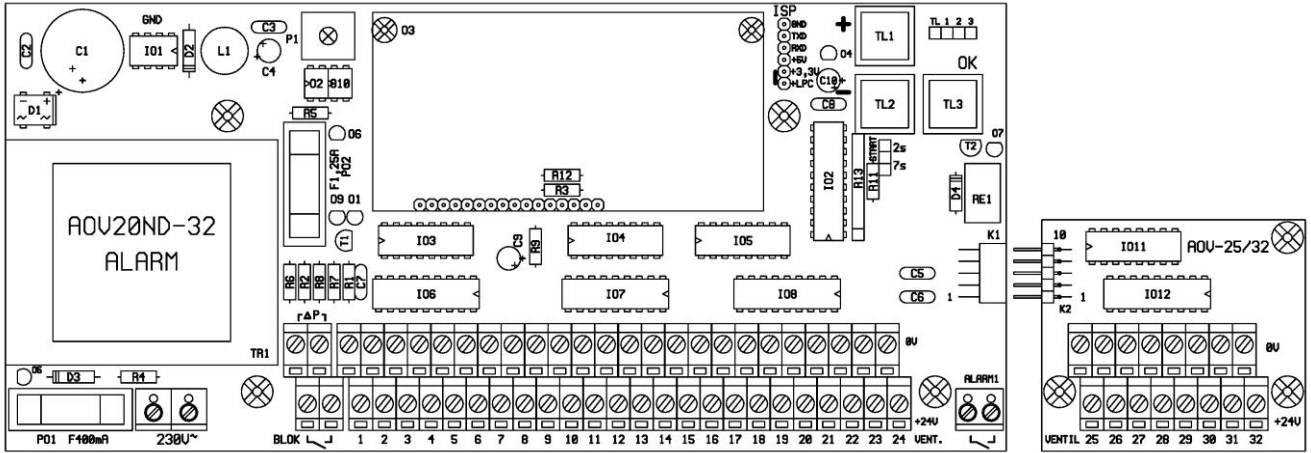
VERSIK	ROZMER :		KUSOVNIK C.
	MATER. :		POCET LISTU :
	CSN		LIST CISLO :
JAN CHUDIK	montaz, udrzba a vyroba el. zarizeni	KRESLIL : ing.A.BLAHA SCHVALIL : Jan Chudik	AOV20ND-24 ALARM
687 09 Borsice tel/fax : 572 581589		DATUM : 18.6.2006	CISLO VYKRESU

AOV 20ND-32



VERSIKNO	ROZMER :		KUSOUNIK C.
	WATER. :		POCET LISTU :
	CSN		LIST CÍSLO :
JAN CHUDIK 687 89 Borsice tel/fax : 572 581589	montaz, udrzba a vyroba el. zarizeni	KRESLIL : ing.R.BLAHA SCHVALIL : Jan Chudik DATUM : 18.6.2006	NAZEV VYKRESU AOV20ND-32 CÍSLO VYKRESU

AOV 20ND-32 A



NERITKO	ROZMER :		KUSOUNIK C.
	WATER. :		POCET LISTU :
	CSN		LIST CÍSLO :
JAN CHUDIK	montaz, udrzba a vyroba el. zarizeni	KRESLIL : ing.R.BLAHA SCHVALIL : Jan Chudik	CÍSLO VYKRESU
687 89 Borsice tel/fax : 572 501589		DATEM : 18.6.2006	AOV20ND-32 ALARM

