

4. Warranty repairs do not cover disassembly and reassembly of device in mounting place as well as preparation for shipment to appointed service.
5. Alongside with granting the guarantee the parties hereby indemnify each other against warranties
6. Subject to the terms of this guarantee Manufacturer will repair product for free.
7. Complaints should be submitted in writing to authorised service centre, immediately after notifying defect covered by the guarantee, not later than within 3 days from the date on which such defect is revealed and before potential disassembly of device. Failure to comply with such requirements will void warranty.
8. A complaint should include : name, type and factory number of product, description of failure, original of warranty card with date of issue and stamp/signature of salesman, proof of purchase. In any cases of unfounded complaint User can be charged with all costs.
9. User is obligated at Manufacturer service request to send defective to a given address, via appointed carrier.
10. The responsibilities of the manufacturer are limited to actual damage caused in device. The manufacturer shall not be responsible for lost benefits or profits.
11. Manufacturer is responsible only for damages resulting from the intentional guilt of the Manufacturer.
12. Manufacturer declares removal of defects on time logistically and organisationally justified.
13. This guarantee shall not exclude, limit or suspend the Customer rights when the provided product is inconsistent with the purchase agreement. The manufacturer shall offer chargeable repairs and reviews after the warranty period.
14. Information about authorized service Hydro-Vacuum S.A. workshops can be found on www.hydro-vacuum.com.pl.



ul. Droga Jeziorna 8
86-303 GRUDZIĄDZ
Tel. 56-45-07-452
fax. 56-46-259-55

LCA-G1/2Al-4C.1 issue. 1/2014

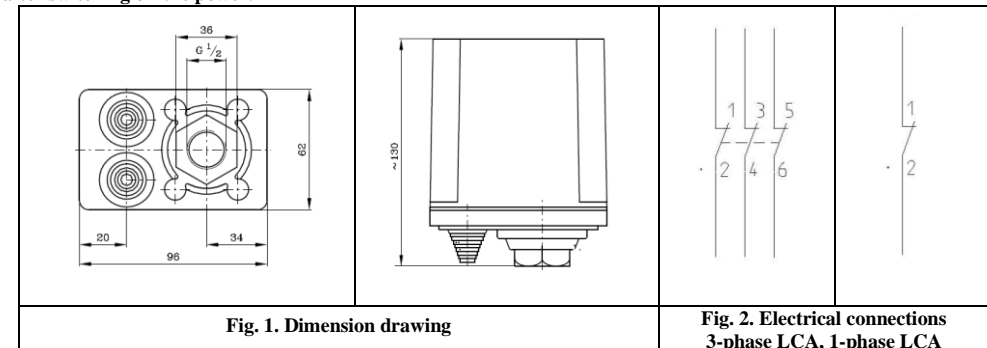
Instruction manual – Pressure connector LCA (1/2”) type with aluminum inlet

APPLICATION – connectors are recommended for work with compressors. Pressure connectors are used to control pressure equipment with close tanks, keeping medium pressure of an agent within fixed, defined limits. The LCA pressure switch is used for the automatic switching on and off of electric motors (pumps) working in hydrophore systems and compressed air systems, in places free from dust, gases and explosive or chemically active vapours. Proper selection of switcher, correct connections carried out by qualified persons ensures its proper usage.

Working conditions	
Ambient temperature	min. -5°C max. 40°C
Medium temperature	min. 0°C max. 40°C
Relative humidity	- to 50% at ambient temp. +40°C - to 90% at ambient temp. +20°C
Degree of protection	IP43 (under the condition of assembling the switch cap upwards)

ASSEMBLY – The pressure connector should be connected to pipeline by mounting it to the connector with a G1/2” thread, which minimal length must be 15 mm. The connection has to be sealed with a rubber washer or hemp bristle. Before screwing down the switch, the connector has to be thoroughly deburred. No sharp edges on the connector are allowed as they may damage the rubber washer.

CAUTION! It is not acceptable to screw down the connector by the cover. The connector has to be placed in the required position and screwed down by the nut with a 36 mm wrench. CAUTION! All work to be carried out after switching off the power.



ELECTRICAL INSTALLATION – The connector can be connected to the power line according to the electrical diagram by persons with proper qualifications and authority. Connection cables must be selected according to the applicable regulations. The connector must be secured against short-circuits. Warning signs are visible and permanently marked on the connector casing. **It is necessary to connect the guard wire to the guard clamp!** Electric wire must be rigidly attached to the installation, so that it does not exert pressure on the switch clamps.

RATED WORKING PARAMETERS

Rated connection voltage	Rated continuous current	Work category	Mechanical durability	Rated frequency of operation	Power of the direct control engines	Relative current flow time
V	A	–	Operation cycles	Operation cycles/h	kW	%
230 (50Hz) 400 (50Hz)	16 10	AC-3	0,25·10 ⁶	120	2,2 4,0	40

CONNECTOR SETTINGS

Pressure settings of LCA connectors

LCA.1			LCA.2			LCA.3		
Switch-on Pz			Switch-on Pz			Switch-on Pz		
from ← to			from ← to			from ← to		
0,10	0,05 *	0,05	0,20	0,10*	0,10	0,30	0,15 *	0,15
0,15	0,05	0,09	0,25	0,10	0,15	0,40	0,15	0,24
0,20	0,08	0,14	0,30	0,10	0,19	0,50	0,15	0,33
0,25	0,12	0,18	0,35	0,13	0,24	0,60	0,23	0,42
0,30	0,16	0,23	0,40	0,17	0,28	0,70	0,30	0,52
0,35	0,20	0,27	0,45	0,21	0,33	0,80	0,38	0,61
0,40	0,25	0,32	0,50	0,25	0,37	0,90	0,45	0,70
			0,55	0,29	0,42	1,00	0,52	0,79
			0,60	0,33	0,46	1,10	0,60	0,88
			0,66	0,37	0,50			
			0,70	0,41	0,54			
			to 0,75	0,45	0,59			
			0,80	0,50	0,64			

* - factory settings

Setting of the required pressures and switching on and off of the switch is carried out by regulating the switch-off regulation nut Pw and switch-on screw Pz (Fig. 3.). Factory settings are shown in the table above. In order to change the settings, the switch has to be connected to the installation and the cover disassembled. The first step during regulation is setting the switch-off pressure with the regulating nut. By turning the regulating nut right we increase the switch-off pressure and by turning it left – we decrease it. The next step is setting the switch-on pressure with the switch-on screw Pz. Before this operation it is absolutely necessary to loosen the regulating nut. By turning the screw Pz (to the right) to its limit we get the maximum switch-on pressure. By unscrewing it (turning to the left) we get a lower switch-on pressure. After the regulation is completed it is necessary to screw on the regulation nut and assemble the switch cover.

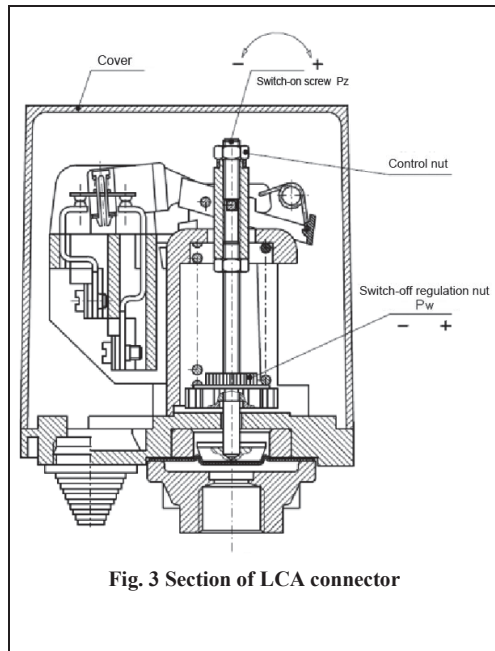


Fig. 3 Section of LCA connector

OPERATION

It is necessary to make periodic inspections of the connector. Frequency of the inspections depends on the connector working conditions. **CAUTION: Before the inspection turn of the power line!** During the inspection, the switch must be cleaned thoroughly from dust. The axis of the moving jaw, the axis of the switching lever and switching spring ends (placed in the holes of the moving jaw) should be oiled with a few drops of machine oil. All worn-out elements (connectors, springs etc.) must be replaced and the fastness of screw connections must be checked and corrected if necessary.

CAUTION: Additional information are included in Product Data Sheet at www.hv.pl

STORING AND TRANSPORT

Connectors are packed individually in cardboard boxes. They should be stored in closed areas (temperature +5°C ÷ 35°C relative humidity up to 70%), free from chemically active vapours and gases. Connectors should be transported in closed means of transport.



86-303 Grudziądz, ul. Droga Jeziorna 8
tel. 56 4507452 fax. 56 4625955

WARRANTY CARD

type factory no

..... Seller stamp and signature.....

/the date of issue/

Warranty obligations are binding only when device is mounted and operated in the territory of Republic of Poland under the conditions specified by the manufacturer in manual.

WARRANTY TERMS

1. HYDRO-VACUUM S.A. grants a guarantee of product quality for 24 months since selling day(the date of invoice), but no longer than 30 months from day of first distribution proven by sale documents.
2. In case of any repairs, modifications or any interferences in product carried out by non-authorised person the guarantee expires. This provision does not apply to repair activities specified in instruction manual.
3. This warranty does not cover the following:
 - improper product selection,
 - usage not in accordance with Hydro-Vacuum S.A. product instructions in terms of operating conditions,
 - inappropriate use or failure to follow instructions concerning assembly, disassembly, usage, storage or preservation of product,
 - mechanical, thermal, chemical defects caused by external factors , such as: overvoltage in power network , lightning , floods, flooding etc.
 - negligent or inappropriate execution of construction works or assembly works essential for ensuring the right operating conditions,
 - normal wear of the parts and components,
 - incorrect device work caused by operating in conditions that differ from one specified technical characteristics.