

NAEV30-DI2.DO

Digital IS input/output signals
Complete valve function (1 output+2 inputs)

ATEX 94/9/CE



- 1 channel as intrinsic safety digital output ON/OFF valves, lights, loads
- 2 intrinsic safety digital inputs: NAMUR detector, contact,...
- optional hysteresis function
- rail mount on hat profile 35 mm
- all connections by removable screw terminals
- ready made wiring system (see option leaflet)

SPECIFICATIONS

Digital ON/OFF outputs

Control of intrinsic safety loads (ON/OFF valves, lights, buzzers and sirens): the choice of the suitable model must be done according the safety parameters given in the reference documents and according of the metrology parameters of loads. Non I.S. inputs: control of the input relay with 1 green LED per channel on the front panel. Control supply 24VDC+/-10%, 7.2 mA max 9 mA.

I.S. outputs: Different types of **NAEV30-** exist to provide the compatibility with the major electrovalves existing on the market. Care! All models of the same supplier or in the same serie are not automatically compatible.
Call us to define the suitable model.

I.S. digital inputs: Each of the 4 x I.S. inputs can be configured independently as a contact or a proximity detector NAMUR as per DIN 19234.

Excepted DI4C type dedicated to contacts only.

Proximity detector NAMUR as per DIN 19234 or free-potential contacts, relays, pressure or temperature switches or pushbuttons in hazardous area.

Non I.S. recopy outputs: According to the type of sensor and the chosen logic: a green LED on the front panel, in standard output, a free-potential contact for each channel without common wire. Optional open collector output on NAEV30-DI2.

Cut-off power : 230 VAC – 0.5 A –120 VA

Collector cut-off power:15V – 60 mA– 0.9 VA –350 Hz

Selection of the sensor type: by a miniswitch

Inductive / capacitive I.S. certified NAMUR proximity detector or free-potential contacts.

Selection of the logic by a mini-DIP : choose of the active output in presence or lack of target (proximity detector) or when contact is NO (Normally Open) or NC (Normally Closed).

Fault detector For all inputs configured as NAMUR, all models (excluding DI4C) give a fault detector – broken line or short-circuit. In fa lty case, the green front LED switches off and the red LED corresponding to the defective channel switches on. Other channels are not affected.

Examples of compatible names:

ASCO, BURKERT, CROUZET, FAS, HERION, HOERBIGER, PARKER LUCIFER, JOUCOMATIC, RGS, SAMSON.

Other models enable the control of binary outputs (1, 2 or 4) and complete ON/OFF valve function (1 output + 2 inputs).NAEV30 series.

Power supply and connections

According to model: 230 VAC (A230) or 115 VAC (A115) +/-10% and 24 VDC +/-10% (C024 with recommendation to –5%+10%). Consumption 5 VA.


1 yellow LED on front panel is "ON" when supply is active.

All connections by removable screw terminals.

Supply distribution by mean of a flat cable from one unit to its neighbour. This cable is a part of standard delivery.

Classification for hazardous areas

NAEV30 is an intrinsic safety associated apparatus. It must be installed in safe area and connected to apparatuses mounted in zone 0, 1 and 2 (G = gas) or zone 20, 21 or 22 (D = dust).

Classification according to ATEX 94/9/CE :  II G/D N° LCIE 00 ATEX 6034X

Marking depending on setting up of standard evolution

[EEx ia] IIC

or [Ex ia] IIC – [Ex iaD]

For safe use refer to ATEX instruction

Temperature parameters:

Ambient operating temperature : -20°C to +60°C

Recommended operating temperature : -20°C to +50°C

Storage temperature : -40°C to +80°C

Dimensional and mechanical

Housing for symmetric hat profile 35 mm DIN rail as per standard NFC63015 / EN50022 - Depth: 120 mm.

Height: 90 mm. W idth on rail 29.5mm, 145 mm overall including cables.

Conditions of installation

- Mounting NAEV30 series on DIN rail :

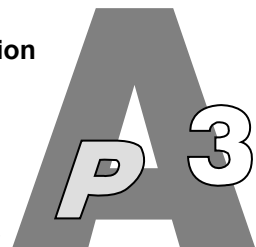
It must take in account thermal dissipation and risk of overheating generated by enclosures installed side by side. In case of a high concentration of enclosures, we recommend to leave a free space of 10 mm between each group of 8 units (horizontal rail) and between each group of 4 units (vertical rail).

- Mounting in a cabinet: In this case, it is recommended to close the electrical cabinet and to provide a circulation of fresh air even by mean of an air conditioner to keep the inside temperature at a level compatible with the recommended operating temperature among the units. In severe environmental conditions (dust, outside temperature), choose the calories drain option "HT" when you order.



EXPLOSIVE ATMOSPHERES
EXPLOSIONSGEFAHRDETE BEREICHE

ATMOSPHERES EXPLOSIBLES





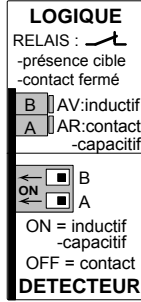
References NAEV30-(1)-(2)-(3)				X = impossible		
NAEV30- function	(1) = type	(2) = Power supply			(3) = output	
		230VAC	115 VAC	24VDC	Relay	Collector
1 output+2 inputs (NAMUR or contact)	DI2NDO1B	A230	A115	X	0	P
1 output+2 inputs (NAMUR or contact)	DI2NDO1C	A230	A115	X	0	P
1 output+2 inputs (NAMUR or contact)	DI2NDO1D	A230	A115	X	0	P
Same as above+ hysteresis	DI2HDO1B	A230	A115	X	0	P
Same as above+ hysteresis	DI2HDO1C	A230	A115	X	0	P
Same as above+ hysteresis	DI2HDO1D	A230	A115	X	0	P
1 output+2 inputs (NAMUR or contact)	DI2NDO1H	X	X	C024	0	P
1 output+2 inputs (NAMUR or contact)	DI2NDO1L	X	X	C024	0	P
Same as above+ hysteresis	DI2HDO1H	X	X	C024	0	P
Same as above+ hysteresis	DI2HDO1L	X	X	C024	0	P

Selection of the sensor type and logic

To select the type of detector and logic, refer to the information printed behind the front panel

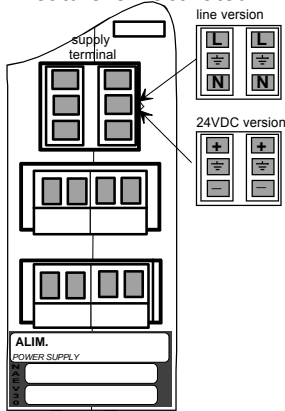
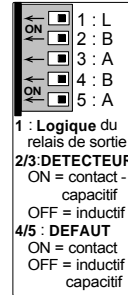
NAEV30DI2NDO1

Take care ! The use of a contact programmed as an "inductive/capacitive" gives a permanent faulty line. On the opposite way, using an Inductive or capacitive proximity switch in position "contact" is possible but the fault detection feature is inactivated.



NAEV30DI2HDO1

NAEV30-DI2H... give on safe side a free potential contact open or closed according to the cycle of the inputs detectors.



POWER SUPPLY CONNECTION

Power distribution by mean of plug-in jumpers from one unit to its neighbour (AC or 24 VDC). All connectors are removable.

Care ! Net supply

All units are equipped with 2 terminals blocks dispatching auxiliary power supply: in orange colour for net supply (L = N) or in black colour for 24 VDC (+ = -): one block for input and one block to make a bridge to the next unit by mean of a flat cable supplied in standard. To avoid electrical chocks, all these connectors must always be filled. If only one of the 2 terminal blocks is used (without giving supply to the next unit), the second block must be filled by the 3 points empty cap delivered in standard. Crafty cable-layer should connect power supply wires and jumpers on both ends of the line of barriers.



This material bears CE mark according to directives 94/9/EC apparatuses for hazardous areas and 89/336/EC electromagnetic compatibility

HT: option for calories extraction: the choice between types DO1A, DO1B, DO2C or DO2D depends on the load. Please ask to our commercial team. Example : NAEV30-DO2C-A230-0 or NAEV30-DO4H-C024-0

Models – Functions	Synoptic	Connection	
		on I.S. side	On safe side
<p>NAEV30-DI2NDO1... 1 output + 2 inputs NAMUR or contact</p> <p>NAEV30-DI2HDO1 1 output + 2 inputs NAMUR or contact with an hysteresis feature These 2 models are convenient for the full control of an ON/OFF valve : control of the valve and of the 2 position feedbacks (Open: closed) P option: on the safe side position feedbacks outputs are done by an open collector. Possibility to connect a common wire '+' for 2 inputs channels (3 wires instead of 4).</p>			

This equipment has a 1-year warranty including parts and labour for materials returned in our factory. Even when the warranty period is over, only A puissance 3 has the authority to modify and repair a certified electrical component or material for hazardous atmospheres of its own production and covered by a certificate of conformity or an EC type examination certificate. Should this clause not adhered to, will A puissance 3 no longer be held liable for any non-conformity noticed a posteriori

