

Switching amplifier

DIGIPOW

with AND - function



Digitronic Automationsanlagen GmbH

Steinbeisstraße 3 · D - 72636 Frickenhausen · Tel. (+49)7022/40590-0 · Fax -10
Auf der Langwies 1 · D - 65510 Hünstetten-Wallbach · Tel. (+49)6126/9453-0 · Fax -42
Internet: <http://www.digitronic.com> · E-Mail: mail@digitronic.com

Notification

This handbook corresponds with the unit version of 11.10.1999. The company Digitronic Automationsanlagen GmbH reserves the right to implement changes that result in an improvement of the quality and the functions of the device at any time and without any announcements.

This instructions manual was created with a maximum of care, but mistakes are not out of the question. We are thankful for any comments, regarding possible mistakes in the instruction manual.

UP-date

You can also obtain this instruction manual on the Internet at <http://www.digitronic.com> in the latest version as PDF file.

Qualified personal only

Commissioning and operation of the device may only be carried out by qualified personal. Qualified personal are persons, authorized with commissioning, grounding and labeling devices, systems and electrical circuits according to the applicable standards of security

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Note: The products of Digitronic are so well constructed that they will not be effected by the millenium.

Note: This device fulfills the following norms according to electromagneticalcompatibility: EN 55011, EN 55022, EN 55024 Teil 2, EN 50082 Teil 2, ENV 50140, VDE 0843 Teil 2, VDE 0843 Teil 4, VDE 0871, VDE 0875 Teil 3 ("N"), VDE 0875 Teil 11, VDE 0877 Teil 2, IEC 801 Teil 3, IEC 801 Teil 2, IEC 801 Teil 4, IEC 801 Teil 5.



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Auf der Langwies 1
D-65510 Hünstetten - Wallbach
Tel. (+49)6126/9453-0 Fax. (+49)6126/9453-42
Internet: <http://www.digitronic.com> / E-Mail: mail@digitronic.com

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1. Introduction

Controllings of modern industry standard have to deal with immense challenges and increasing requirements for performance, flexibility and speed. DIGIPOW is a switching amplifier with AND function for two outputs that strengthens logics and accelerates switching processes. If for example a fast camswitch shall be linked with a PLC-controlling, without having the effect that the slower cycle time of the PLC slows down the switching process, the logic linkage has to be done externally. DIGIPOW combines the advantages of an switching accelerator/performance booster and a logic AND linkage in one case.

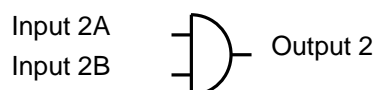
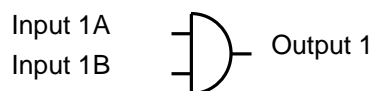
2. Features

- * proper for switching devices up to 2 x 24 watt i.e. 2 x 108 watt for type DP/DC2P/4AMP
- * dual - channel version
- * low time delay.
- * AND function for the two outputs by ever 2 inputs.
- * high freewheel voltage of -24V DC for fast deactivation of magnetic switching devices
- * galvanic separation of the inputs
- * 30mm narrow encasement made out of Thermoplast - plastic
- * encasement with convenient clip - on assembly
- * several encasements can be put in line easily
- * short - circuit - proof.

3. Freewheel function

During the switching off of magnetic switching devices, free wheeling diodes cause a slower break down of magnetic fields. As a consequence, the switching of time rises. Digipow accelerates the break down of the magnetic field through a freewheel circuit of -24V DC and causes a reduction of the deactivation time.

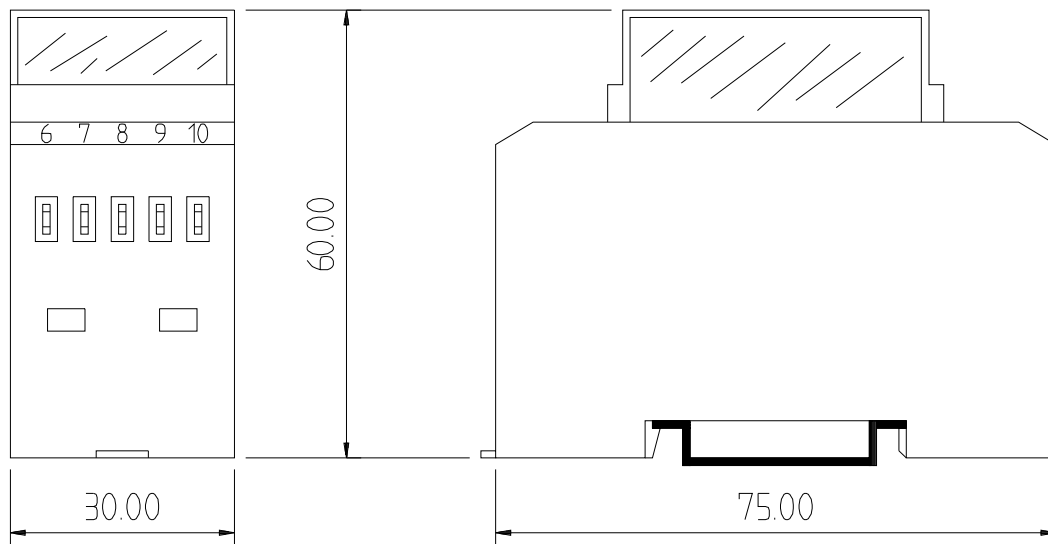
4. Logic



5. Connection allocation

Clamp	1	=	Input 1A
Clamp	2	=	Input 1B
Clamp	3	=	Input 2A
Clamp	4	=	Input 2B
Clamp	5	=	0V for Inputs
Clamp	6	=	0V for Power supply
Clamp	7	=	Output 1
Clamp	8	=	Output 2
Clamp	9	=	+24 VDC +/-20% Power supply
Clamp	10	=	+24 VDC +/-20% Power supply

6. Dimensions



7. Technical data

Supply voltage.....	24V DC \pm 20%
Number of inputs.....	4 Input, galvanically separated, every input is assigned to two inputs, these are AND linked.
Input voltage.....	active 16 - 30 VDC, passive 0 - 3 VDC
Input resistance.....	2.2k Ohm
Number of outputs	2
Output voltage.....	24V
Output current	2A permanent current per output
Freewheel voltage.....	-24V DC
Delay time	up to 60 μ s
Cabinet.....	hardly flammable Thermoplast plastic; temperature up to 100°C
Conductor connections	five screw pins up to 2.5mm ² in the grid measure of 5.08mm on both sides; including label
Assembly.....	comfortable clip-on assembly on symmetrical carrier rail by EN 50 022, leave at least a gap of 1cm for air to circulate
Disassembly.....	by pulling back the orange colored clip catch
Dimesions	see chapter 9. Dimensions
Cover type.....	cabinet corresponds with IP 40, connection pins with IP 20
Operating temperature.....	0...+55°C
Weigth.....	about 150g