Switching amplifier

DIGIPOW

with AND - function

Digitronic Automationsanlagen GmbH

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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.

Update
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

Liability
(1) The salesperson is liable for any damages for which he or the rightful owner is responsible up to the amount of the actual salesprice. Liability concerning missed profits, failed-to-appear savings, indirect damages and consequential damage is excluded.
(2) The liability restrictions above are not valid concerning assured characteristics and damages, which are caused by intention or coarse negligence.

Protection

Note: This device fulfills the following norms: DIN EN 61000-6-2, DIN EN 61000-4-2, DIN EN 61000-4-4, DIN EN 61000-4-5, DIN EN 61000-4-8 and DIN EN 55011 and RoHS 2 (2011/65/EU)..

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1. Introduction

Controllings of modern industry standard have to deal with immense challenges and increasing requirements for performance, flexibilty and speed. DIGIPOW is a switching amplifier with AND function for two outputs that strengthens logics and accelerates switching processes. If for excample a fast camswitch shalll 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 advatages of and switching accelerator/perfomance booster and a logic AND linkage in one case.

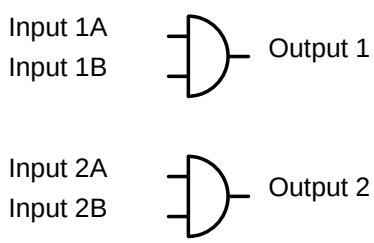
2. Features

* 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 tow 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 diods cause a slower break down of magnetic fields.them. 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.

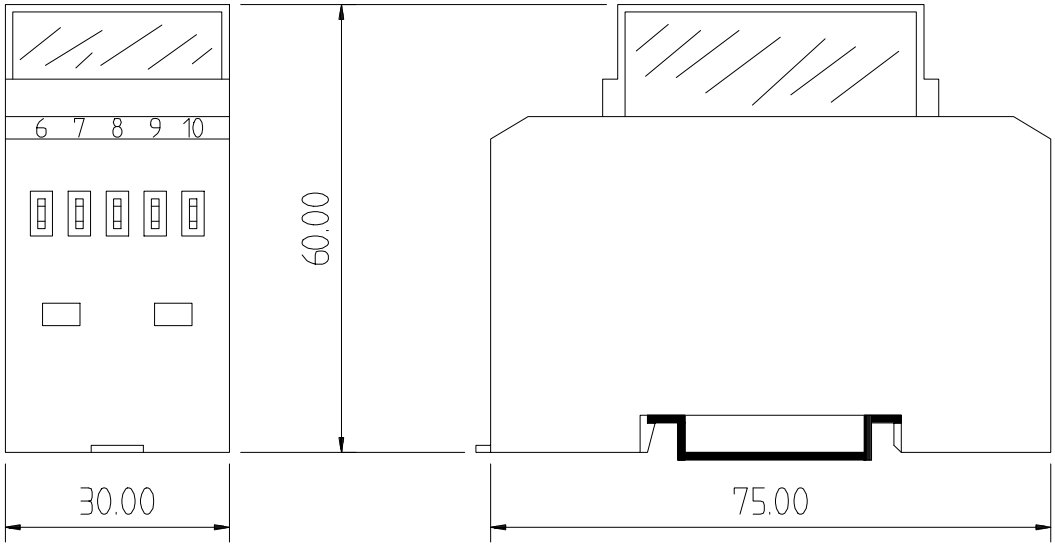
4. Logic



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 ±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 60µs
Cabinet	hardly flammable Thermoplast plastic; temperature up to 100°C
Conductor connections	five screw pins up to 2.5mm² 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