# Operating Instructions DIGAP-3A-...

Valid for software version SW2.2

# **Digital Proportional Amplifier**

For valves with DIN43650A-ISO4400 connection

## DIGAP-3A-UKS, IKS

Cable connection with NPN switching output



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Plug connection M12x1



Read these operating instructions carefully before installing and operating this product. Operation by technical staff only! Pre – Conditions for the use of this product:

To ensure the safe and secure use of this product it should only be used according to specification and the general advice must always be followed:

- Always follow the stated critical and limiting values according to specification, such as forces, temperatures and voltage
- Consider ambient temperature and moisture
- · Consider local laws and regulations
- Use this product only in the original and supplied shape, you must not carry out any modifications
- Remove all packaging and transit support

#### Stipulations of use:

#### **Protection Category IP 65:**

The Protection Category and the type test must not be applied to all applications.

The correct fitting of the socket, cables, wiring and other parts has to be approved and checked by user and operator.

#### Temperature:

Always bear in mind that the part could be heated by neighbouring appliances! Also bear in mind that approved temperatures could burn and cause harm to human beings.

### Technical data

Supply:	
Bosidual ripplo:	10%
Residual lipple.	
Output current:	up to 2,5A (2500mA)
Output power:	60 W
Chopper frequency:	100 500 Hz
Ramps up/down:	up to 10", separately adjustable
Temperature:	from -25° to max. 70°C
Power consumption:	15mA (24VDC)
Connector standard:	DIN43650A-ISO4400 revolves <u>+</u> 90° max. 180°
Protection class:	IP65 (properly assembled)
System supply:	4 /5) poll-socket M12x1, ISO/DIN or 2m PVC-cable / 5x0.5 <sup>2</sup>
Display:	7-segment LED display, functions & values
Adjustment:	programmable by keys inside housing
Weight:	xKS = 280g including cable / $xS = 72 g$
Tariff:	90269090
	EMV according to EN 61000 6 2:2001 10 EN 61000 6 2:2001 10

EMV according to EN 61000-6-3:2001.10 EN 61000-6-2:2001.10

#### Accessories:

Angle plug:	ELWIKA 5012 PG7 (required only for model US + IS)
Straight plug:	ELKA 5012 PG7 (required only for model US + IS)
Sealing:	GDM3-7

## LED Symbols

Symbols – normal mode		Symbols – setting mode		Symbols
8	Set point reached	8	Rise time (upward chute)	<b>88</b> data
8	Downward regulating	$\mathbf{B}$	Dropant time (downward chute)	Graphic chart
8	Upwards regulating	8	Chopper frequency	
8	Minimum reached (Offset)	8	Min. current (Offset)	Out [A]
8	Maximum reached (current limiting)	8	Max. current	8
		8	0V- setting point	8
		8	10V- setting point	
		8	Switching point OFF	
		8	Switching point ON	In [0-10V]

NOTE: The switching points are out of function at the design "DIGAP-3A-US" and "DIGAP-3A-IS".

## Manipulation

		MENULVOET	Set adjustments:
WERT / VALUE		MENU/SET	Push SET [s] to change into the setting mode.
FUNCTION			Choose the setting mode with up [+] and down [-].
	•		<b>Push again SET</b> [s], to see the data of the chosen function.
AB		AUF	Change setting with up [+] and down [-].
DOWN		UP	Keep SET [s] pushed for 2 sec to save settings or push SET [s] shortly to get the
			previous setting.
			After 10 sec the amplifier is switching back to the normal mode.
			,

## Adjustment

$B_{-}$	Rise time: 0-10 sec, display: 0 – 9, disbanding 100 steps, factory setting: 1 sec
8	Drop out time: 0-10 sec, display: 0 – 9, disbanding 100 steps, factory setting: 1 sec
8	<b>Setting point minimum:</b> 0-100 %, display: 0 – 9, disbanding 1000 steps, factory setting: 0V=0 % Setting: adjust the potentiometer to your chosen minimum point or put the chosen minimum setting onto the port (0-10V). Now set the desired current at the DIGAP. Notice: this setting can also be below the limit min. current.
8	<b>Setting point maximum:</b> 0-100 %, display: $0 - 9$ , disbanding 1000 steps, factory setting: $10V = 70 \%$ Setting: adjust the potentiometer to your chosen maximum point or put the chosen maximal setting onto the port (0-10V). Now set the desired current at the DIGAP. Notice: this setting can also be over the limit max. current.
8	<ul> <li>Limit min. current: 0-100 %, display: 0-9, disbanding 1000 steps, factory setting 0 % (no voltage at the valve)</li> <li>Warning! If you choose this setting mode the valve will be under the set current. Be careful when changing this setting – an incorrect adjustment may result in an accident.</li> </ul>
8	Limit max. current: 0-100 %, display: 0-9, disbanding 1000 steps, factory setting 75 % Warning! If you choose this setting mode the valve will be under the set current. Be careful when changing this of setting – an incorrect setting may result in an accident.
8	Chopper frequency: $100 - 500 \text{ Hz}$ , display: $0 - 5$ , disbanding 500 steps, factory setting 150 Hz

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...-UKS / ...-IKS

### Dimension and installation information



Installation PLC Control (no possibility of potentiometer installation):



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English

# ...-IS / ...-US

#### Dimension and installation information





Installation PLC Control (no possibility of potentiometer installation):



plag configuration:

1 (brown):	+VDC
2 (white):	Analogue input
3 (blue):	-VDC (GND)
4 (black):	10 VDC OUT
5 (yellow/green):	: PE / earth

Please note that the wire colours in the bracket are not valid for every supplier.

(Bitte beachten Sie dass die in Klammer angeführten Aderfarben nicht für alle Hersteller gelten.)