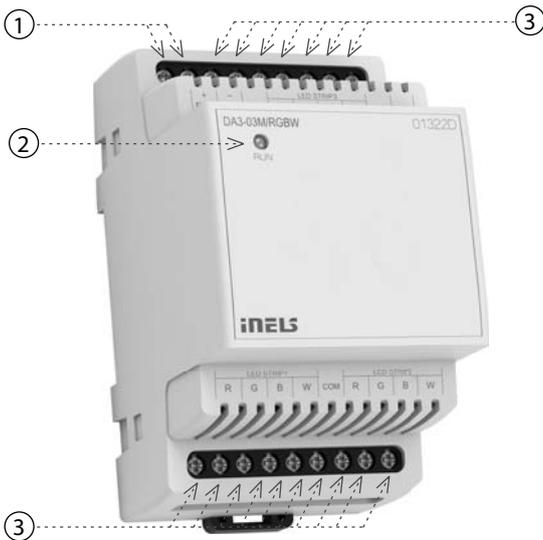


Characteristics

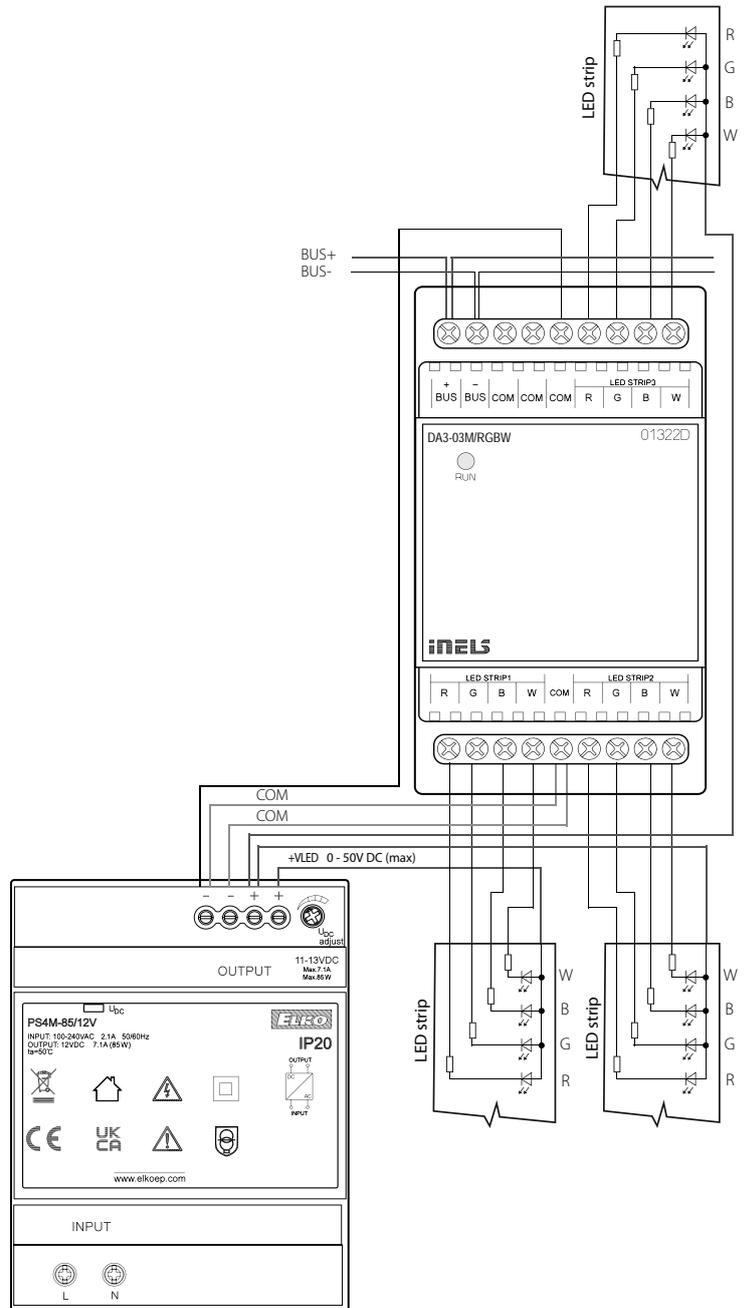
- The dimmer for LED strips is used for independent control of 12 channels, so it can be connected to, for example:
 - 3 RGBW LED strips or 3 RGB LED strips
 - 12 single colour LED strips
 - combination of RGB, RGBW & LED strips
- The 3-module design of the device with mounting in the switchboard allows the connection of a dimmable load of 3x 15 A or 12x 3.75 A, which represents, for example: 3 pieces of RGBW LED strips 24 V 20W/m = max 18m.
- The dimmer is controlled by the central unit of the iNELS system.
- The power supply of the LED strip is in the range of 0-50V DC.
- Each of the output channels is separately controllable and addressable.
- The actuator is equipped with electronic thermal protection, which switches off the output in case of overheating.
- During installation, it is necessary to leave at least half a module of free space on each side of the actuator for better cooling.
- DA3-03M/RGBW in 3-MODUL design is intended for installation in a switchboard on an EN60715 DIN rail.

Description of device



- Data BUS
- LED indication of unit's state
- Connection LED strips

Connection



*To reduce current loops in the wiring, it's advisable to employ connection wires with a suitable cross-section to the COM terminal for the power consumption of each LED strip.

DA3-03M/RGBW

Output	
Dimmable load:	LED strip 12 V, 24 V, 48 V; RGBW LED strip 12 V, 24 V, 48 V
Number of channels:	3x 4 12x 1
Surge current:	3x 15 A 12x 3,75 A
Switching voltage:	0–50 V DC stabilized
Dimmable performance:	max. 400 W
Communication	
Installation BUS:	BUS
Power supply	
Supply voltage by BUS/ tolerance:	27 V DC, -20/+10 %
Rated current:	5 mA (from 27 V DC), from BUS
Status indication unit:	green LED RUN
Connection	
Terminal:	max. 2.5 mm ² /1.5 mm ² with sleeve
Operating conditions	
Air humidity:	max. 80 %
Operating temperature:	-20 to +35 °C
Storing temperature:	-30 to +70 °C
Protection degree:	IP20 device, IP40 mounting in the switchboard
Overvoltage category:	II.
Pollution degree:	2
Operating position:	vertical
Installation:	switchboard on DIN rail EN 60715
Design:	3-MODULE
Dimensions and weight	
Dimensions:	90 x 52 x 65 mm
Weight:	170 g

CONNECTION TO THE SYSTEM, INSTALLATION BUS

iNELS3 peripheral units are connected to the system through the BUS installation. Installation BUS conductors are connected to the terminal units to BUS+ and BUS- terminals, wires cannot be interchanged. For installation of BUS it is necessary to use a cable with a twisted pair of wires with a diameter of at least 0.8 mm, the recommended cable is iNELS BUS Cable, whose features best meet the requirements of the BUS installation. Bearing in mind that in terms of all the properties it is possible in most cases also use the cable JYSTY 1x2x0.8 or JYSTY 2x2x0.8, however it is not recommended as the best option. In the case of a cable with two pairs of twisted wires it is not possible to use the second pair of the other for modulated signal due to the speed of communications; it is not possible within one cable to use one pair for one segment BUS and the second pair for the second segment BUS. For installation of BUS it is vital to ensure that it is kept at a distance from the power lines of at least 30 cm and must be installed in accordance with its mechanical properties. To increase mechanical resistance of cables we recommend installation into a conduit of suitable diameter. BUS topology installation is free except for the ring, wherein each end of the bus must terminate at the terminals BUS + and BUS- peripheral unit. While maintaining all the above requirements, the maximum length of one segment of the installation BUS can reach up to 500 m. Due to the data communication and supply of units in one pair of wires, it is necessary to keep in mind the diameter of wires with regards to voltage loss on the lead and the maximum current drawn. The maximum length of the BUS applies provided that they comply with the tolerance of the supply voltage.

CAPACITY AND CENTRAL UNIT

Central units type CU3-0xM are the main components of the iNELS busbar installation. There are several types of the central units; according to their use and communication interfaces. Each central unit has at least one BUS bar. Up to 32 units can be connected to this busbar. The total number of units and busbars is given by the number of central units in the superordinated topology of the iNELS BUS system. Further it is necessary to follow the requirement for maximum loading of one branch of the BUS bar by max. 1000mA current that is given by the sum of nominal currents of the units connected to this busbar branch. In case of connection of units with withdrawal exceeding 1A you can use BPS3-01M with a withdrawal of 3A.

SUPPLYING THE SYSTEM

For supplying power to system units, it is recommended to use the power source of ELKO EP titled PS3-30/iNELS or PS3-100/iNELS. We recommend backing up the system with backup batteries connected to the source of PS3-100/iNELS (see sample diagram of connecting the control system).

GENERAL INFORMATION

The unit can work as an independent element without the central unit only within a very limited scope of its functions. For full utilizability of the unit it is necessary that the unit is connected to a central unit of a CU3 series system or to a system that includes such unit as an extension of other system functions.

All parameters of the unit can be set through the CU3 series unit in the iDM3 software.

On the front panel of the unit you can find some LED diodes for indication of power supply voltage and communication with the CU3 series central unit. In case the diode RUN flashes in regular intervals, standard communication runs. In case the diode RUN is permanently on, the unit is supplied from the busbar, however, it does not communicate on the busbar. In case the diode RUN is off, no voltage is present on the BUS+ and BUS- terminals.

Warning

Before the device is installed and operated, read this instruction manual carefully and with full understanding and Installation Guide System iNELS3. The instruction manual is designated for mounting the device and for the user of such device. It has to be attached to electro-installation documentation. The instruction manual can be also found on a web site www.inels.com. Attention, danger of injury by electrical current! Mounting and connection can be done only by a professional with an adequate electrical qualification, and all has to be done while observing valid regulations. Do not touch parts of the device that are energized. Danger of life-threat! While mounting, servicing, executing any changes, and repairing it is essential to observe safety regulations, norms, directives and special regulations for working with electrical equipment. Before you start working with the device, it is essential to have all wires, connected parts, and terminals de-energized. This instruction manual contains only general directions which need to be applied in a particular installation. In the course of inspections and maintenance, always check (while de-energized) if terminals are tightened.