

# Control Electronics for Solenoid Control Valves

8605

- Microprocessor-controlled electronics
- Selectable input signal
- Adjustable PWM frequency
- Optional RS232 or RS485 interface

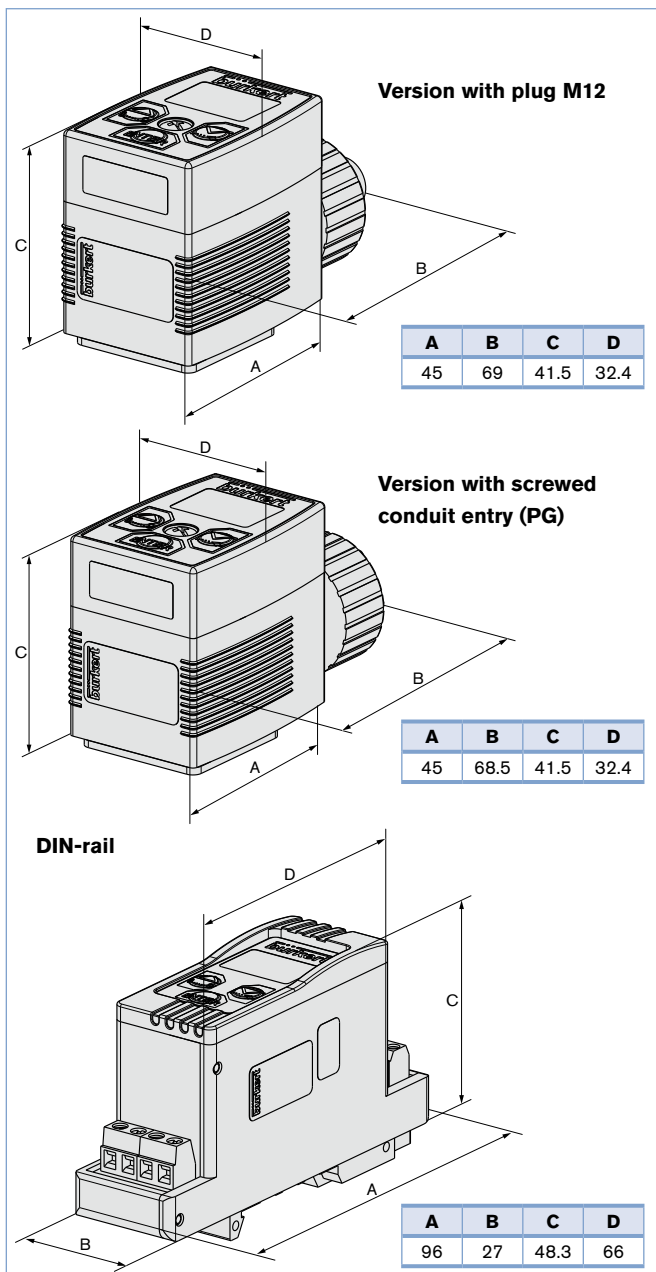


The digital control electronics, Type 8605, serves to operate valves in the power range from 40 - 2000 mA. The electronics converts an external standard signal into a pulse-width modulated (PWM) signal with which the opening of the valve and hence a fluidic output parameter (e.g. flow rate) can be infinitely varied. An internal current control with the duty cycle factor of the PWM signal as control variable ensures that every value of the input signal, irrespective of the thermal condition of the coil, is unambiguously assigned a given value of the effective coil current. Compared to DC operation of solenoid control valves the PWM operation improves, among others, their sensitivity and hysteresis. A display and operating keys allow the electronics to be easily adapted to a particular solenoid control valve and to the concrete conditions of an application.

## Technical Data

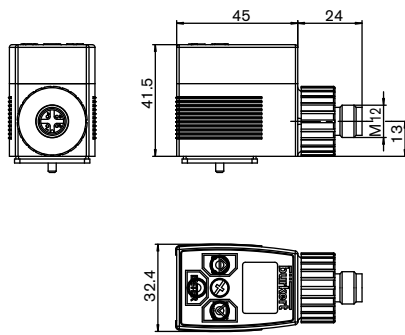
<b>Operating voltage</b>	12V DC or 24 V DC
<b>Voltage tolerance</b>	±10%
<b>Residual ripple</b>	<5%
<b>Power consumption</b>	approx. 1 W (without valve)
<b>Output current (valve)</b>	Max. 2 A
<b>Ambient temperature</b>	-10 °C to 60 °C
<b>Input signal</b>	0-20 mA, 4-20 mA or 0-5 V, 0-10 V (configurable)
<b>Input impedance</b>	<200 Ω (with current input) >20 kΩ (with voltage input)
<b>Output signal for valve control</b>	PWM signal – frequency adjustable from 80 Hz to 6 kHz
<b>Ramp function</b>	Time variable from 0 to 10 s
<b>Version</b>	Cable plug for direct installation (with PG or M12 connection) DIN-rail version (DIN EN 50022)
<b>Protection class</b>	Cable plug – IP65 DIN-rail – IP40
<b>Housing material</b>	Cable plug – Polyamide / PC DIN-rail – Polyamide / PBT

## Envelope Dimensions [mm] (see datasheet for details)

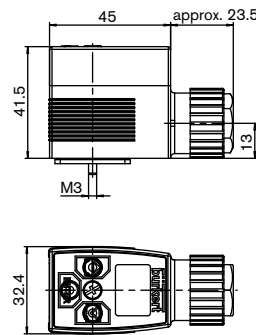


**Cable plug with operating unit**

Version with plug M12

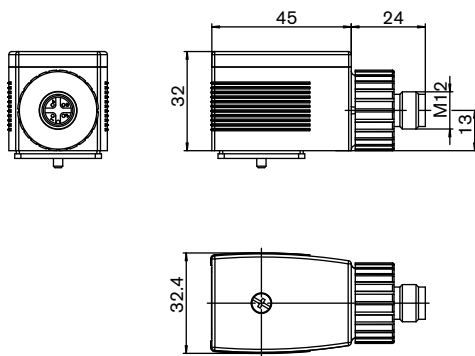


Version with screwed conduit entry (PG)

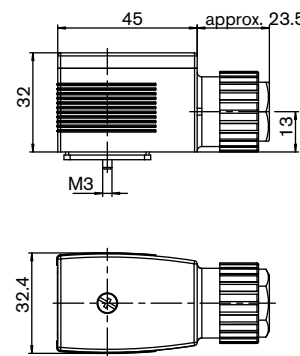


**Cable plug without operating unit**

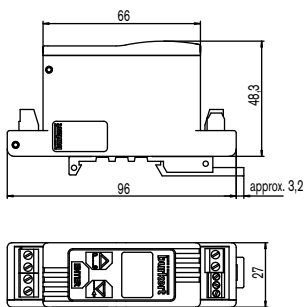
Version plug M12



Version with screwed conduit entry (PG)



**DIN-rail**



## Ordering Chart

8605

Version	Max. coil current [mA]	Item no.	2861, 2871 24 V DC	2861, 2871 12 V DC	2863, 2873 24 V DC	2863, 2873 12 V DC	2865, 2875 24 V DC	2865, 2875 12 V DC	2836 24 V DC	6024 24 V DC	6024 12 V DC	6223 24 V DC	6223 12 V DC
Cable plug with PG-connection	200 - 1000	178 354			x	x	x			x		x	
Cable plug with M12-connection	200 - 1000	178 355			x	x	x			x		x	
Cable plug with PG-connection	500 - 2000	178 356				x	x	x	x	x	x		x
Cable plug with M12-connection	500 - 2000	178 357				x	x	x	x	x	x		x
Cable plug with PG-connection without control unit	200 - 1000	178 358			x	x	x			x		x	
Cable plug with M12-connection without control unit	200 - 1000	178 359			x	x	x			x		x	
Cable plug with PG-connection without control unit	500 - 2000	178 360				x	x	x	x	x	x		x
Cable plug with M12-connection without control unit	500 - 2000	178 361				x	x	x	x	x	x		x
DIN-rail	40 - 220	178 362	x										
DIN-rail	200 - 1000	178 363	x	x	x	x	x			x		x	
DIN-rail	500 - 2000	178 364				x	x	x	x	x	x		x

### Notes:

- With two current ranges possible please choose the lower one
  - Successor types:
    - 2861, 2871 with 2822, 2824
    - 2863, 2873 with 2833
    - 2865, 2875 with 2835
- When using the older type please choose the control electronics indicated for the adequate new type.

## Accessories

Version	Item no.
M12 connector, 4 pins, 5 m cable	918 038
Right-angle plug M12, 4 pins	784 301
Control unit for plug on module	667 839
RS232 module for plug on module	667 840
RS485 module for plug on module	667 841
RS232 module for DIN-rail	667 842
RS485 module for DIN-rail	667 843
Cable for RS232/ 485 interface M8 for plug on module	918 718
Cap with screw and seal	670 549



# Clean up your Cabinet!

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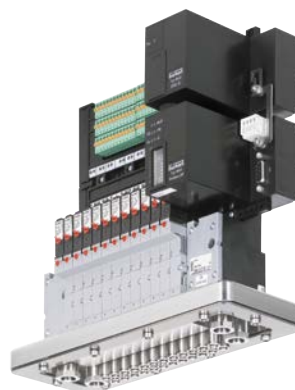
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