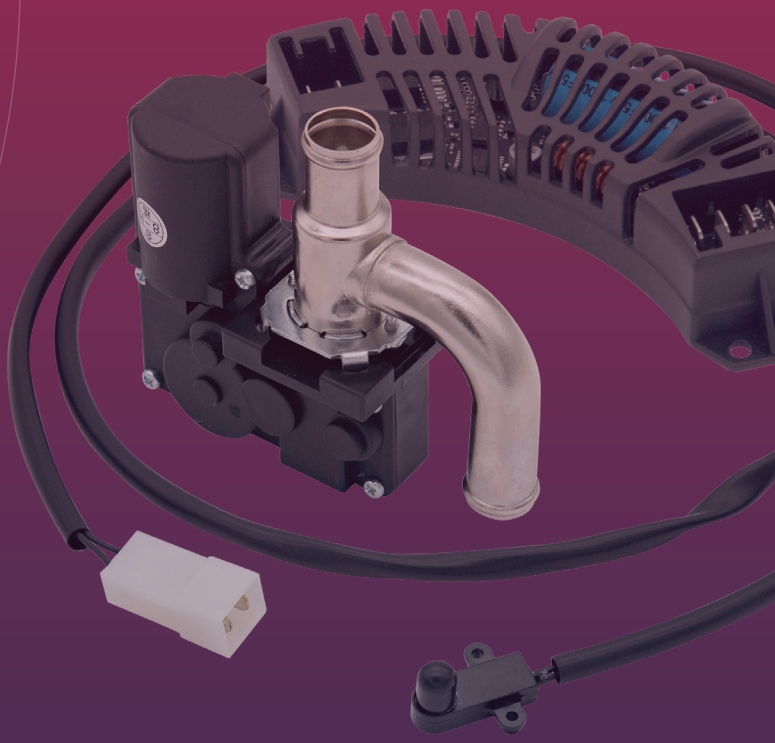
Sensors and Actuators



COMES
ELECTRONIC CLIMATE CONTROL

Sensors and Actuators

Besides Control Panels and Control Units, COMES offers its customers a wide range of Sensors and Actuators for all kind of HVAC applications.
These components can be purchased on their own or as part of a kit.

Electronic Blower Speed Regulator

PART NUMBER	P/N 12V	P/N 24V
Analog Input Signal	Z19.01.135	Z19.01.142
PWM Input Signal	Z19.01.136	Z19.01.138

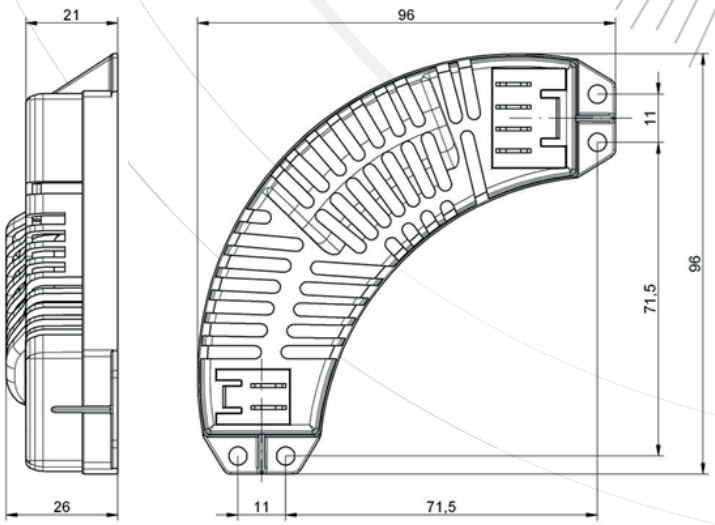
The Electronic Blower Speed Regulator is designed to be mounted on the blower, near its motor. In this way, the irradiated levels of radio frequencies will be minimized and we obtain a good heat dissipation thanks to the air coming from the blower

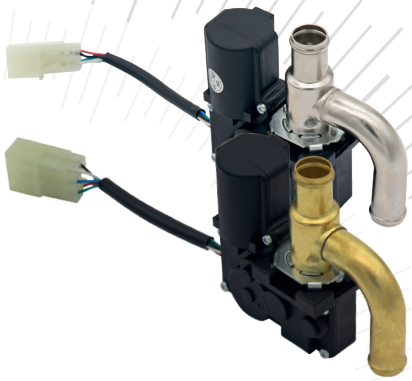
GENERAL PERFORMANCE, ELECTRONICAL AND ENVIRONMENTAL TEST

Nominal Power Supply Voltage:	12V or 24V
Operating Voltage Range:	10.5÷16V (for 12V) or 18÷32V (for 24V)
Rated Current:	25A (for 12V) or 15A (for 24V)
Reverse Polarity Protection	
Operating Temperature Range:	from -40°C to 85°C
Storage Temperature Range:	from -40°C to 90°C
Over Temperature Protection	
Input Signal:	Analog 0÷5V or PWM 0÷5V (according to the specific version)
Output Signal:	PWM with duty-cycle variable
Diagnostic Signal:	Motor voltage feedback
Overload Current Protection	
Motor Circuit Protection	

Electromagnetic Compatibility according to UNECE Regulation No.10

MECHANICAL DIMENSIONS





DC Motor Water Valve

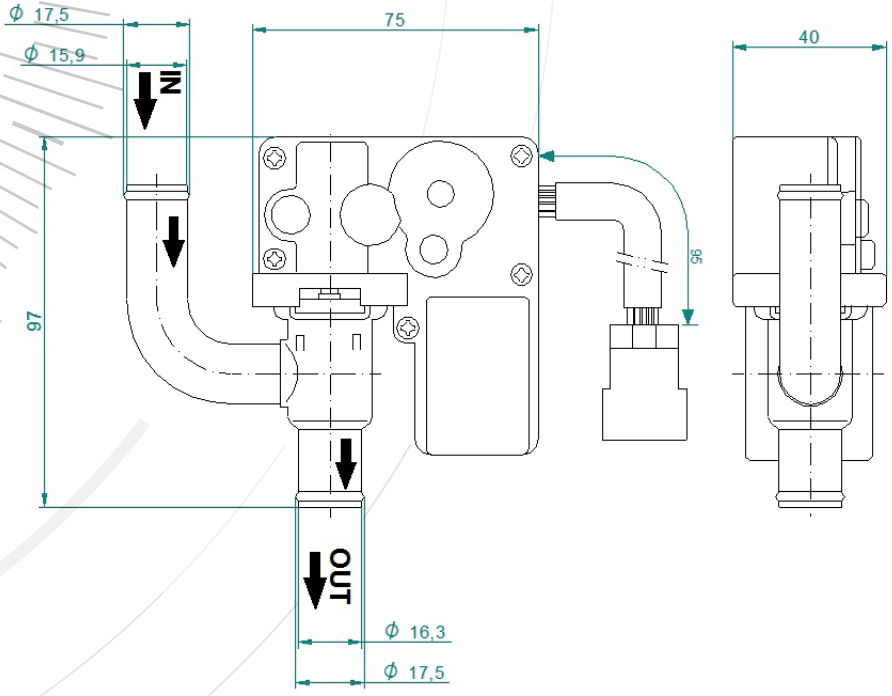
PART NUMBER	P/N 12V	P/N 24V
	26.01.006	26.01.007

TECHNICAL CHARACTERISTICS

Working Temperature:	from -30°C to +80°C
Working Voltage:	12VDC ± 30% (for 26.01.006) or 18VDC ~ 28 VDC (for 26.01.007)
Rated Voltage:	12VDC (for 26.01.006) or 24VDC (for 26.01.007)
Lock Current:	220mA MAX (for 26.01.006 at 12VDC) or 300mA MAX (for 26.01.007 at 24VDC)

Operating Time of the Valve (from the fully closed position to the open position): 10 sec. max

MECHANICAL DIMENSIONS



Solenoid Water Valve 12V

PART NUMBER 26.01.001

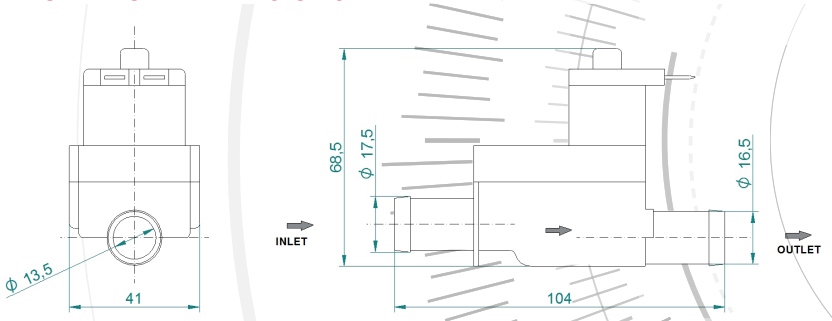
For 24V systems, an adaptor is available upon request (P/N 23.01.019).

TECHNICAL CHARACTERISTICS

Inlet valve opening:	at 0.03 bar
Full opening:	at 0.07 bar
Power supply voltage:	12 VDC
Continuous duty:	100%
Operating temperature range:	from -20°C to +100°C
Power absorption:	approx. 3 W
Capacity at 0.5 bar dynamical:	>1800 L/H
Maximum pressure of operation:	1 bar static
Maximum internal leakage:	1.2 l/h
Maximum frequency:	50 Hz
Horizontal assembling	
Maximum inclination:	±10°

All engine cooling liquids with anti-freeze, glycols, etc.

MECHANICAL DIMENSIONS



Internal Temperature Sensor

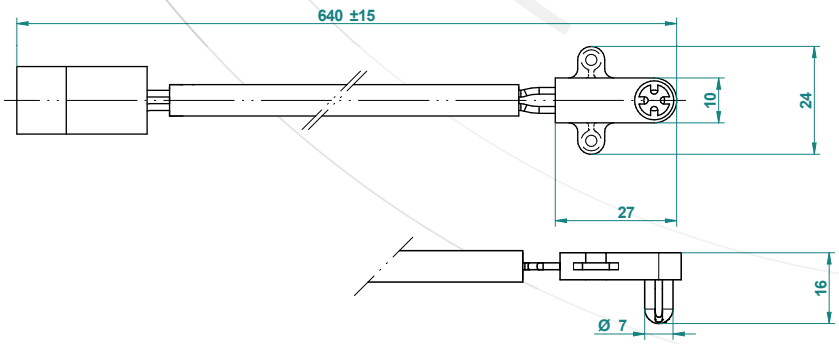
PART NUMBER 24.01.020

TECHNICAL CHARACTERISTICS

Sensor Type:	NTC
Resistance Value at 25°C:	10KΩ
Working Temperature Range:	from -40°C to +85°C

Available upon request kit with double-sided tape and screws for fitting.

MECHANICAL DIMENSIONS



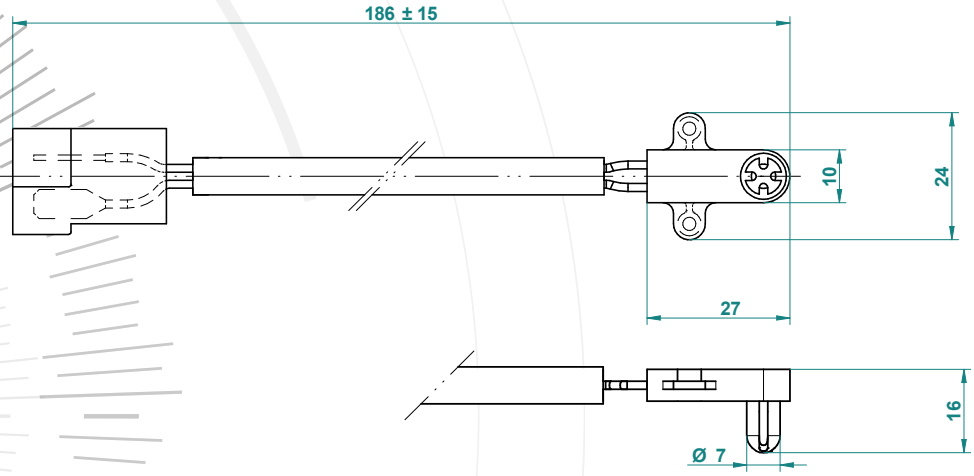
Mixed Air Temperature Sensor

PART NUMBER 24.01.017

TECHNICAL CHARACTERISTICS
Sensor Type: NTC
Resistance Value at 25°C: 10KΩ
Working Temperature Range: from -40°C to +85°C

Available upon request kit with double-sided tape and screws for fitting.

MECHANICAL DIMENSIONS

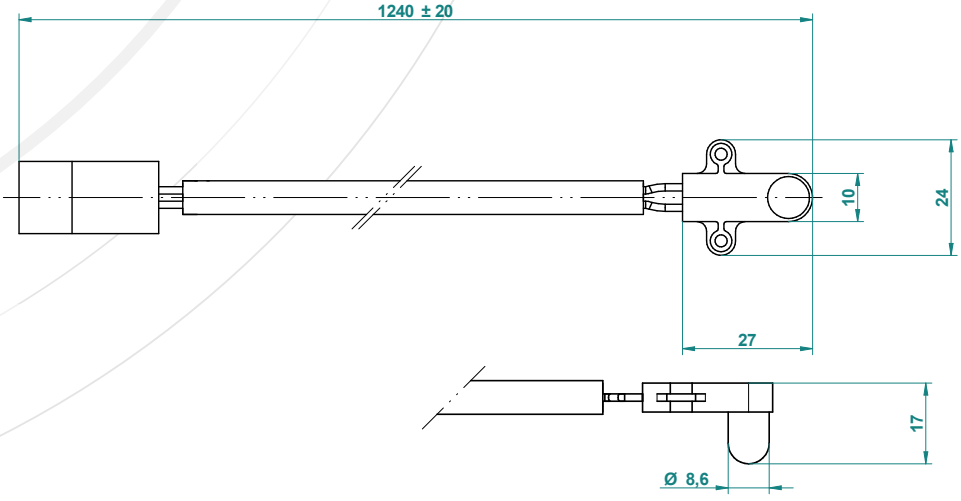


External Temperature Sensor

PART NUMBER 24.01.019

TECHNICAL CHARACTERISTICS
Sensor Type: NTC
Resistance Value at 25°C: 10KΩ
Working Temperature Range: from -40°C to +85°C
Available upon request kit with double-sided tape and screws for fitting.

MECHANICAL DIMENSIONS



Internal Temperature Sensor

PART NUMBER	600 MM	160 MM
	24.01.041	24.01.042

TECHNICAL CHARACTERISTICS

Sensor Type:	NTC
Resistance Value at 25°C:	10KΩ
Working Temperature Range:	from -40°C to +85°C

MECHANICAL DIMENSIONS

P/N 24.01.041
Cable length (before assembling)=600 ± 25 mm
L=620 ± 25 mm

P/N 24.01.042
Cable length (before assembling)=160 ± 25 mm
L=180 ± 25 mm

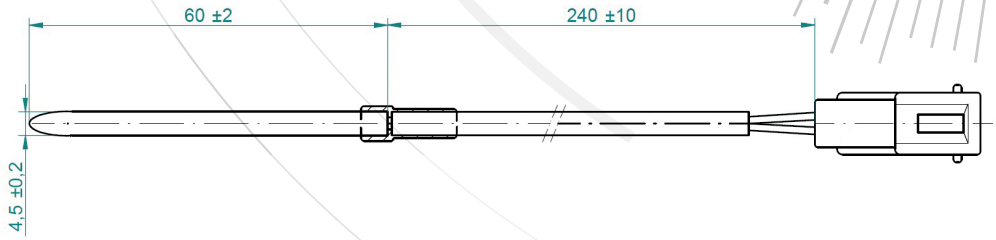
Anti-Icing Temperature Sensor Kit

PART NUMBER	61.01.279

TECHNICAL CHARACTERISTICS

Sensor Type:	NTC
Resistance Value at 25°C:	5KΩ
Working Temperature Range:	from -40°C to +85°C

MECHANICAL DIMENSIONS



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