

# SENTRONIC 601

## ELECTROPNEUMATIC PROPORTIONAL VALVE

Ports G1/4 - G1/2

3 PORTS

**SPECIFICATIONS**

Proportional valve delivered with testing form

FLUIDS	: Air or neutral gas filtered 50 µm, without condensate, lubricated or dry
PORTS	: G1/4 - G1/2
MAXIMUM AIR PRESSURE (MAP)	: (see table below)
FLUID TEMPERATURE	: 0° C, + 60°C
- AMBIANT	: 0° C, + 40°C
SET-POINT	- ANALOG
- DIGITAL	: 0 - 10 Volts (sensitivity < 50mV-impedance 100KΩ)
- DIGITAL	: or 0 - 20 mA (sensitivity < 0,1mA - impedance 500 Ω)
- DIGITAL	: or 4 - 20 mA (sensitivity < 0,1mA - impedance 500 Ω)
- DIGITAL	: 8 bits + memory function
HYSTERESIS	: < 1% of the maximum pressure (PMR)
LINEARITY	: < 0,5% of PMR
REPEATABILITY	: < 0,5% of PMR
MINIMUM SET-POINT	: 50 ± 20 mV (0,1 mA) with switch-off function

**CONSTRUCTION**

Direct operated poppet valve  
 Body : anodised aluminium  
 Internal parts : stainless steel and brass  
 Sealing : Nitrile (NBR)

**INSTALLATION**

Assembly position : any  
 Comply with required air quality  
 Comply with electrical supply specifications

**ELECTRICAL CHARACTERISTICS**

Nominal diameter (mm)	Stabilized voltage <sup>(1)</sup> (DC)	Max. power (W)	Max. current <sup>(2)</sup> (mA)	Insulation Class	Degree of protection	Electrical connection
6 12	24 V = +/-10%	29 34	1200 1400	F	IP 65	Plug in connector 7 pins DIN 43651 (16 pins for digital)

(1) Maximum ripple : 10 %

(2) Max. amount of power consumed in highest PMR version

**CHOICE OF EQUIPMENT**

∅ Ports	∅ Orifice (mm)	Flow Coefficient KV	Flow at 6 bar l/min (ANR)	Band of regulation PMR (bar)	setting	Pressure switch	MAP (bar)	CODES
G 1/4	6	10	700	0-3	Analog 0-10V	PNP	8	60160018
				0-3	digital	NPN	9	60160017
				0-6	digital	NPN	9	60160051
				0-10	Analog 0-20mA	PNP	12	60160089
				0-10	Analog 4-20mA	PNP		60160091
				0-10	Analog 0-10V	PNP		60160019
0-10	digital	PNP	60160011					
0-10	digital	NPN	60160053 (5)					
G 1/2	12	20	1400	0-3	Analog 0-10V	PNP	8	60160015
				0-3	digital	PNP	8	60160016
				0-6	digital	-	9	60160060 (3)
				0-6	digital	NPN	9	60160025
				0-10	digital	NPN	12	60160052 (4)
				0-12	Analog 0-20mA	PNP	14	60160088
0-12	Analog 0-10V	PNP	14	60160013				
0-12	digital	PNP	14	60160014				

(3) Version with 0 - 20 mA detector output

(4) Version with connector lead 5 m

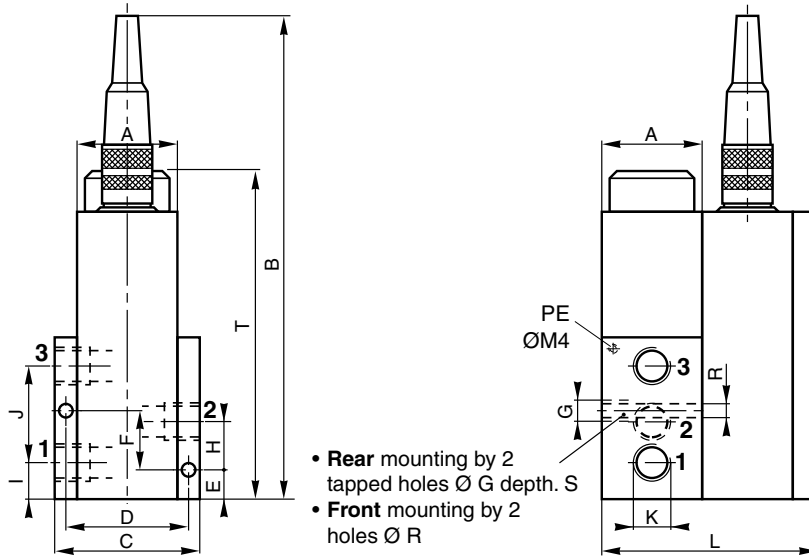
(5) Without feedback 0-10V on pin 6

PNP : reference 24 V = if setting is reached

NPN : ground reference if setting is reached

# Series 601-604

## DIMENSIONS AND WEIGHTS

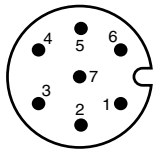


Ø nominal (mm)	A	B	C	D	E	F	G	H	I	J	K	L	R	S	T	Weights (Kg)
6	36	175	52	43	10	20	M6	16	11	34,3	G1/4	74	4	10	105	0,950
12	45	205	70	57,5	12	28	M6	22,5	15	48,5	G1/2	93	4	10	136	1,900

## CONNECTOR WIRING

Version **analog** set-point

View direction "V"  
(solder side of female connector)



- 1 - Power + 24V
- 2 - GND (Power)
- 3 - Input set-point
- 4 - GND (Input)
- 5 - Output voltage stabilised 12 V, max. 30 mA
- 6 - Actual pressure (sensor output)  
(signal 0-10 V for the band of maximum regulation PMR - max. 10 mA)
- 7 - Not connected (standard)  
On option : pressure switch output connection NPN or PNP (500 mA max.)

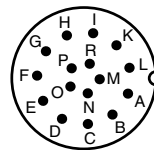
5 m lead connector : **60300116**

Pins identification :

Pin	color
1	brown
2	red
3	orange
4	yellow
5	green
6	blue
7	purple
-	braid

Version **digital** set-point

View direction "V"  
(solder side of female connector)



- A - Power +24V
- B - GND (Power)
- C - Bit 1 (LSB)
- D - Bit 2
- E - Bit 3
- F - Bit 4
- G - Bit 5
- H - Bit 6
- I - Bit 7
- K - Bit 8 (MSB)
- L - Memory function
- M - Not connected (standard)  
On option : pressure switch output connection NPN or PNP (500 mA max.)
- N - Not connected
- O - Not connected
- P - Pressure signal (pressure sensor output 0 - 10V for the pressure range in question)
- R - Not connected

5 m lead connector : **60300052**

Pins identification :

Pin	color
A	brown
B	red
C	orange
D	yellow
E	green
F	blue
G	purple
H	grey
I	white
K	black
L	white/brown
M	white/red
N	white/orange
O	white/yellow
P	white/green
R	white/black

# SENTRONIC 601

## ELECTROPNEUMATIC PROPORTIONAL VALVE

with external pressure port for the sensor  
Ports G1/4 - G1/2

**3 PORTS**

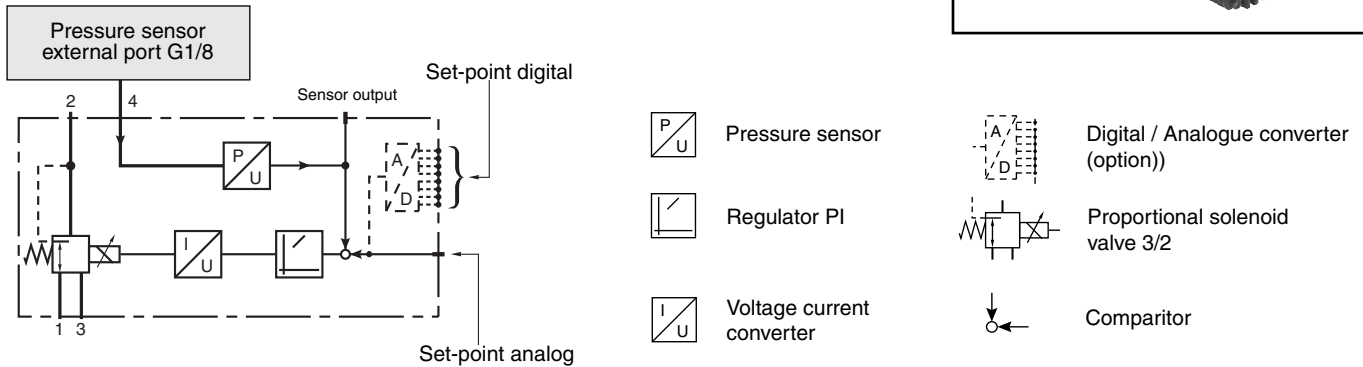
**SPECIFICATIONS**

Proportional valve delivered with testing form

FLUIDS	: Air or neutral gas filtered 50 µm, without condensate, lubricated or dry
PORTS	: G1/4 - G1/2 - G1
MAXIMUM PRESSURE (MAP)	: (see table below)
AMBIENT TEMPERATURE	: 0° C, + 60°C
AMBIENT	: 0° C, + 40°C
SET-POINT - ANALOG	: 0 - 10 Volts (sensitivity < 50mV-impedance 100KΩ) : or 0 - 20 mA (sensitivity < 0,1mA - impedance 500 Ω) : or 4 - 20 mA (sensitivity < 0,1mA - impedance 500 Ω)
- DIGITAL	: 8 bits + memory function
HYSTERESIS	: < 1% of the maximum pressure (PMR)
LINEARITY	: < 0,5% of PMR
REPEATABILITY	: < 0,5% of PMR
MINIMUM SET-POINT	: 50 ± 20 mV (0,1 mA) with switch-off function



**OPERATING SYSTEM**



**CONSTRUCTION**

Direct operated poppet valve  
Body : anodised aluminium  
Internal parts : stainless steel and brass  
Sealing : nitrile (NBR)

**INSTALLATION**

Assembly position : any  
Comply with required air quality  
Comply with electrical supply specifications

**ELECTRICAL CHARACTERISTICS**

Diameter Nominal (mm)	Stabilized voltage (DC) <sup>(1)</sup>	Max. power (W)	Max. current <sup>(2)</sup> (mA)	Insulation	Degree of Protection	Electrical connection
6	24 V = +/-10%	29	1200	F	IP 65	Connecteur 7 broches DIN 43651 (16 broches en digital)
12		34	1400			
20		44	1800			

(1) Maximum ripple : 10 %

(2) Max. amount of power consumed in highest PMR version

**CHOICE OF EQUIPMENT**

Ø Ports	Ø Orifice (mm)	Flow Coefficient KV	Flow to 6 bar l/min (ANR)	Band of regulation PMR (bar)	Setting	Pressure switch	MAP (bar)	CODES
G 1/4	6	10	700	0-3	analog 0-10V	PNP	8	<b>60160012</b>
				0-10	analog 0-20 mA	-	9	<b>60160024</b>
				0-16	analog 0-10V	PNP	12	<b>60160020</b>
G1/2	12	20	1400	0-13	analog 0-10V	PNP	2	<b>60160023</b>
				0-1	analog 0-10V	PNP		<b>60460036</b> (6)
				0-1	analog 0-10V	PNP		<b>60160030</b> (3)
				0-1	analog 0-10V	PNP		<b>60460007</b> (5)
				0-1	analog 4-20mA	PNP		<b>60160008</b>
				0-1	digital	PNP		<b>60160048</b>
				0-1	digital	NPN		<b>60160066</b>
				0-1	digital	-		<b>60160003</b>
				0-2	analog 0-10V	PNP		3
				0-2	digital	NPN	<b>60160056</b>	
				0-3	analog 0-10V	PNP	8	<b>60160010</b>
				0-3	analog 0-10V	PNP		<b>60160029</b> (3)
				0-3	analog 4-20mA	PNP		<b>60160096</b>
				0-3	digital	PNP		<b>60160076</b>
				0-3	digital	NPN		<b>60160026</b>
0-3	digital	-	<b>60160004</b>					
0-6	digital	-	9	<b>60160059</b> (4)				
0-12	digital	PNP	14	<b>60160077</b>				
G 1	20	80	5600	0-3	analog 0-10V	PNP	8	<b>60160067</b>
				0-13	analog 4-20mA	PNP	2	<b>60460008</b>

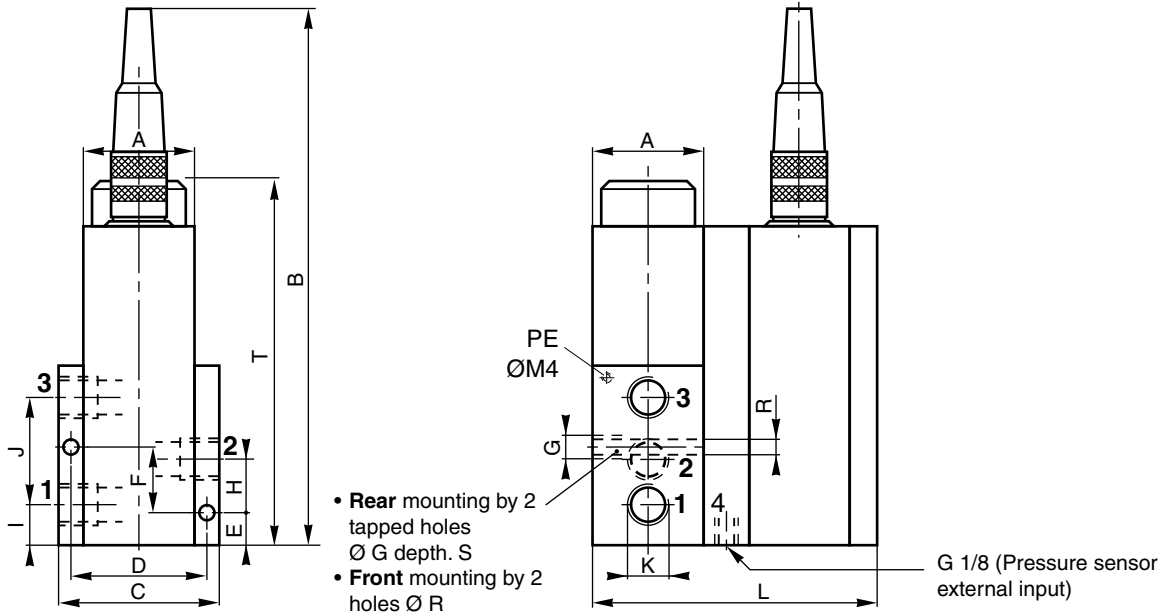
(3) version with 0 - 4 sec. temporizing  
(5) version with vacuum resistant detector  
PNP : reference 24 V = if setting is reached

(4) Version with 0 - 20 mA detector output  
(6) over shoot test  
NPN : ground reference if setting is reached

All leaflets are available on: [www.asconumatics.eu](http://www.asconumatics.eu)

# Series 601-604

## DIMENSIONS AND WEIGHTS

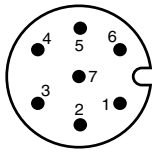


Ø nominal (mm)	A	B	C	D	E	F	G	H	I	J	K	L	R	S	T	Weights (Kg)
6	36	175	52	43	10	20	M6	16	11	34,3	G1/4	92	4	10	105	1,070
12	45	205	70	57,5	12	28	M6	22,5	15	48,5	G1/2	111	4	10	136	2,110
20	60	240	96	79	15	33	M8	30,5	20	60	G1	135	6	15	178	4,290

## CONNECTOR WIRING

Version **analog** set-point

View direction "V"  
(solder side of female connector)



- 1 - Power + 24V
- 2 - GND (Power)
- 3 - Input set-point
- 4 - GND (Input)
- 5 - Output voltage stabilised 12 V, max. 30 mA
- 6 - Actual pressure (sensor output)  
(signal 0-10 V for the band of maximum regulation PMR - max. 10 mA)
- 7 - Not connected (standard)  
On option : pressure switch output connection NPN or PNP (500 mA max.)

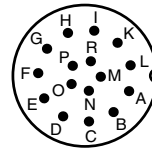
5 m lead connector : **60300116**

Pins identification :

Pin	color
1	brown
2	red
3	orange
4	yellow
5	green
6	blue
7	purple
-	braid

Version : consigne **digitale**

Vue suivant "V"  
(côté soudure du connecteur femelle)



- A - Power +24V
- B - GND (Power)
- C - Bit 1 (LSB)  
On option : pressure switch output connection NPN or PNP (500 mA max.)
- D - Bit 2
- E - Bit 3
- F - Bit 4
- G - Bit 5
- H - Bit 6
- I - Bit 7
- K - Bit 8 (MSB)
- L - Memory function
- M - Not connected (standard)
- N - Not connected
- O - Not connected
- P - Pressure signal (pressure sensor output 0 - 10V for the pressure range in question)
- R - Not connected

5 m lead connector : **60300052**

Pins identification :

Pin	color
A	brown
B	red
C	orange
D	yellow
E	green
F	blue
G	purple
H	grey
I	white
K	black
L	white/brown
M	white/red
N	white/orange
O	white/yellow
P	white/green
R	white/black