



- Piezoresistive pressure sensor
- 22 mm body diameter
- Long-term excellent work
- Stainless steel case
- EMC and reverse polarity protection
- Analog 4 ... 20mA / 0 ... 10VDC etc. different outputs
- Different models from 100 mBar to 600 Bar

### Applications

- Pneumatic Systems
- Hydraulic Systems
- Machines Equipments
- Air Cooling – Heating Systems
- Water Technologies
- Automation Applications

ATEK BCT 22 series Pressure transmitters offer high performance for demanding commercial and heavy industry applications.

Our products with piezoresistive working principle can be used in water, air, oil etc. applications.

The standard stainless steel housing with IP65 / IP67 protection can work in harsh environments.

The BCT 22 series, which is not affected by electrical fluctuations and reverse connections due to over voltage and reverse polarity protection, has a long life.

### BCT 22 TECHNICAL SPECIFICATIONS

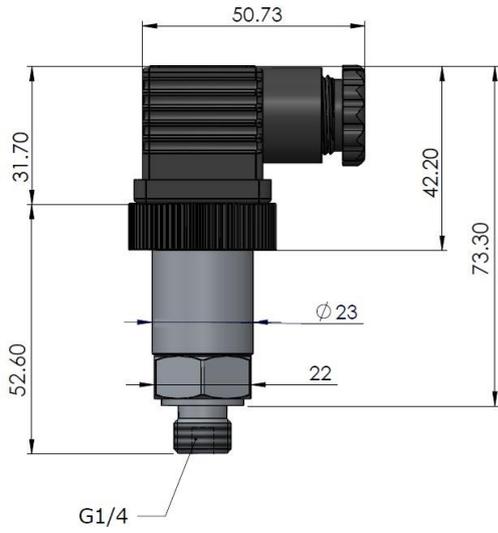
<b>Measurement Range</b>	Diffrent models from 0...100mbar to 0...600Bar Diffrent vacuum models from 0... -100mbar to 0...-1Bar
<b>Measurement Type</b>	Ambient pressure measurement as relative Air, Water, Oil, Non-explosive gases
<b>Sensor / Diaphragm</b>	Piezoresistive working principle Ceramic or Silicone Membrane
<b>Maximum Compressive Strength</b>	300%T.S. ≤700mbar, 200%T.S. < 250Bar 150%T.S ≥250Bar *Can be 3 or 5 times.
<b>Oring – Sealing</b>	Standard NBR, optional FKM(Viton) or EPDM
<b>Output Signal</b>	4...20mA (2 Wire) , 0...20mA (3 Wire) 0...10VDC, 1...6VDC, 0...5VDC, Ratiometric etc.
<b>Mechanical Connection</b>	G1/4, G1/8, G1/2, NPT1/4, NPT1/8, NPT1/2, M14, 7/16M, 7/16F
<b>Supply Voltage</b>	<b>4-20 mA</b> : 12 ... 30 V <sub>DC</sub> <b>0-10 V</b> : 12 ... 30 V <sub>DC</sub> <b>Ratiometric</b> : 5 V <sub>DC</sub>
<b>Operating Current</b>	Maximum 30mA
<b>Accuracy</b>	F.S ±%0,5 @25° (Ceramic) F.S ±%0,3 @25° (Silicon)
<b>Long Term Stability</b>	F.S ±%0,3/ year
<b>Response Time</b>	1ms %10...%90 nominal pressure
<b>Protection Class</b>	IP65 or IP67
<b>Operating Temperature</b>	-40°C ... +100°C
<b>Ambient Temperature</b>	-20°C ... +85°C
<b>Body</b>	Stainless steel body - 1.4305 (AISI303) Optional stainless 316L or Titanium
<b>Electrical Connection</b>	Socketed Models DIN43650-A, DIN46350-C, M12, Packard or PUR cable 3 x 0.14mm ( 4,9mm cable thickness )
<b>Weight</b>	65 ... 110 gram (except socket)
<b>Mounting / Tightening Torque</b>	15 ... 20 Nm

F.S : Full Scale ( working pressure range )

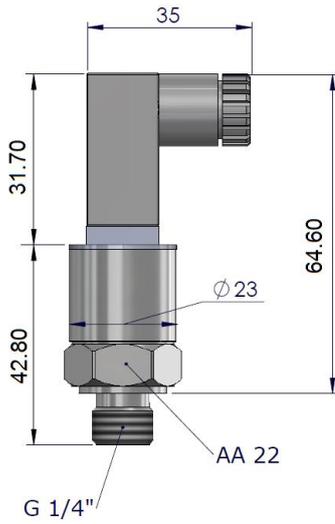
\* Product life will be shortened when more pressure is given than working pressure  
According to the product, it may be damaged at high pressure of 3-5 times.

\*\* IP67 protection is provided if M12 socket models are equipped with press-printed sockets.

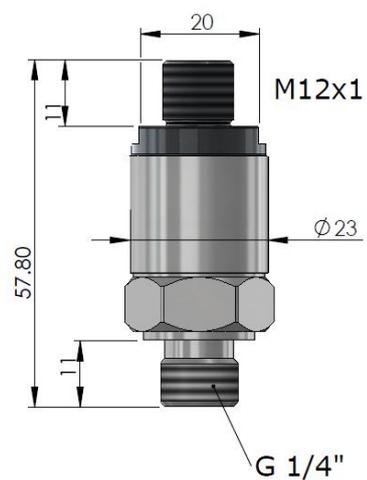
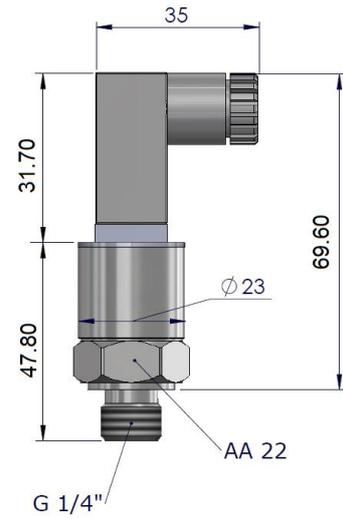
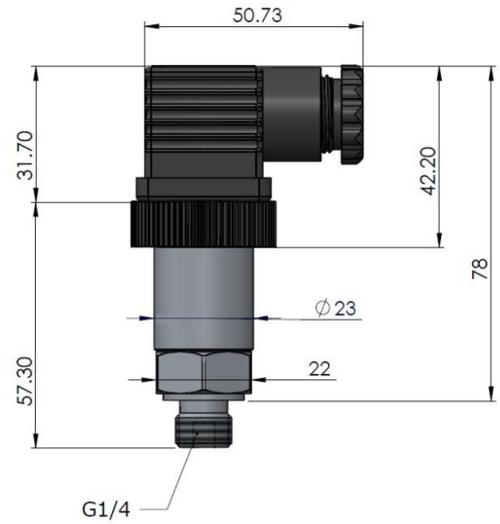
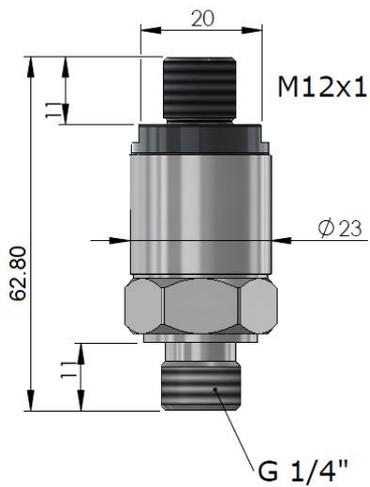
S30 SOCKET : DIN43650-A

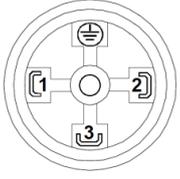
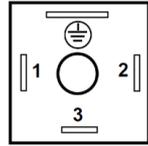
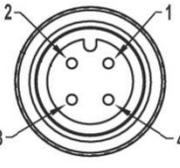
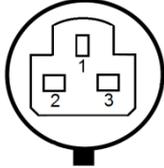
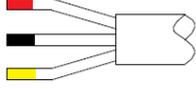


S31 SOCKET : DIN43650-C



S12/S15 SOCKET : M12

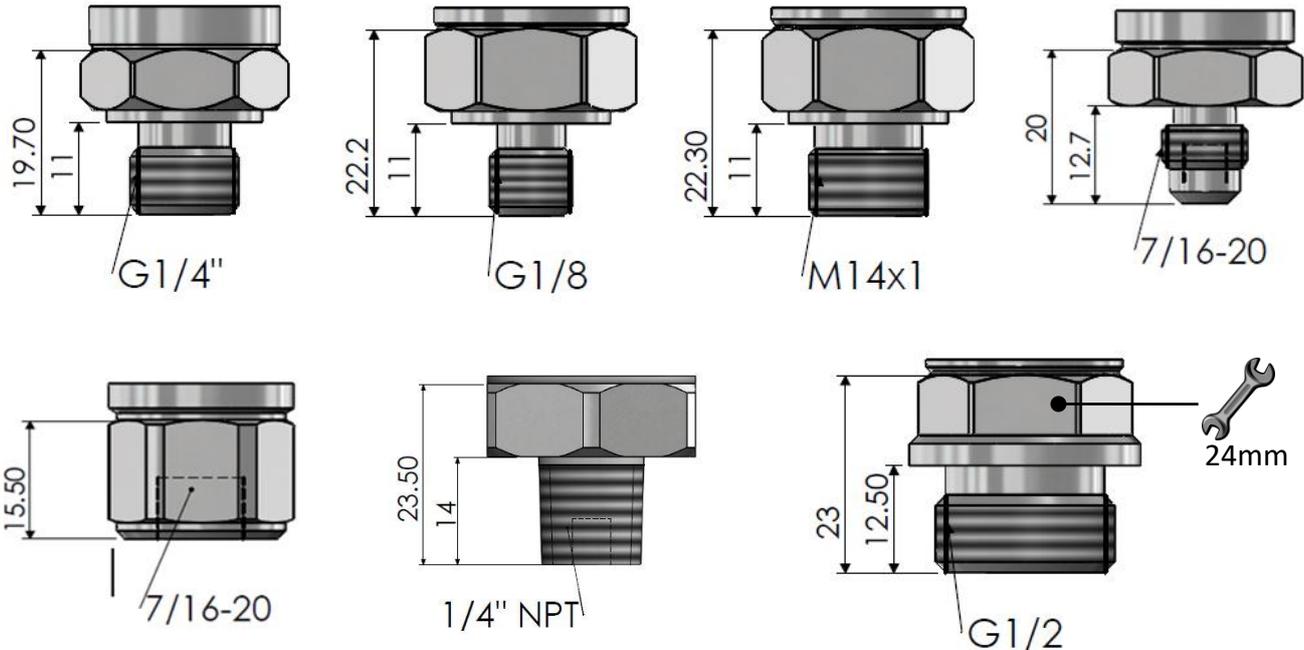


					
<b>DIN D46350-A</b>	<b>DIN D46350-C</b>	<b>M12</b>	<b>PACKARD</b>	<b>CIRCULAR</b>	<b>WIRED</b>
S30	S31	S12	S32	S33	
PIN NO	PIN NO	PIN NO	PIN NO	PIN NO	COLOR

CURRENT OUTPUT	+Vcc	2	2	2	1	2	2	RED
	Analogue Output	1	1	1	3	1	1	YELLOW
VOLTAGE OUTPUT	+Vcc	2	2	2	1	2	1	RED
	GND	1	1	1	3	1	2	BLACK
	Analogue Output	3	3	3	2	3	3	YELLOW

- \* For IP67 protection at M12 socketed model, press-printed cable should be used. Otherwise, you cannot use it under IP67 conditions.
- \*\* There are PUR or PVC cable options in the cable model.
- \*\*\* On models with the PACKARD socket, the letter of pin numbers are 1(C), 2(B), 3(A).

### MECHANICAL CONNECTION

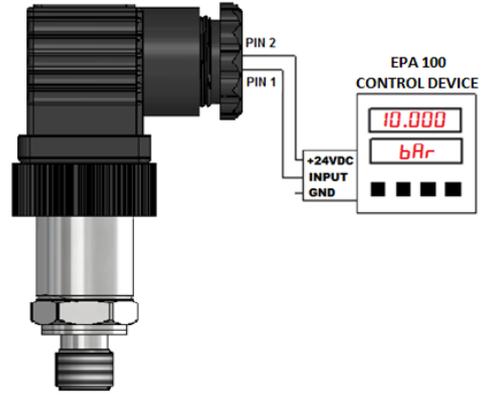
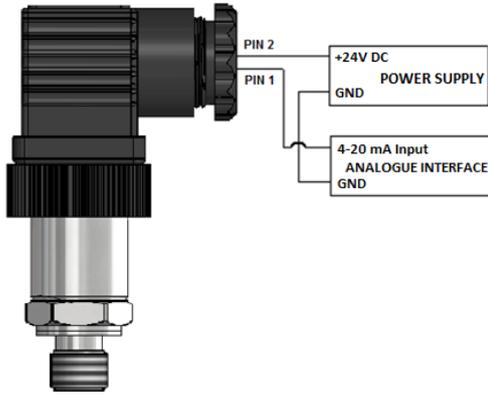


G1/4" (Total height: 19.70, Hex height: 11)  
 G1/8 (Total height: 22.2, Hex height: 11)  
 M14x1 (Total height: 22.30, Hex height: 11)  
 7/16-20 (Total height: 20, Hex height: 12.7)  
 7/16-20 (Total height: 15.50)  
 1/4" NPT (Total height: 23.50, Hex height: 14)  
 G1/2 (Total height: 23, Hex height: 12.50, Key slot width: 24mm)

- \* In the case of the G1/2 model, the dimension of key slot is 24mm. All other models are 22mm.
- \*\* Do not turn the product by holding from socket during installation. Otherwise, the product may be damaged.

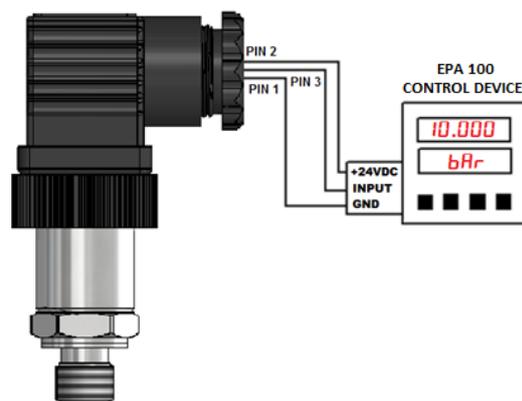
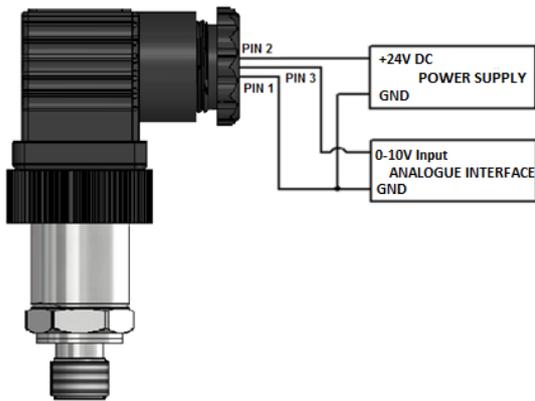
2 Wire 4-20mA Connection Socket Pin No	Signal
1	4...20mA Analogue Output
2	+12...30 VDC (Supply)

**Sample Connection:**



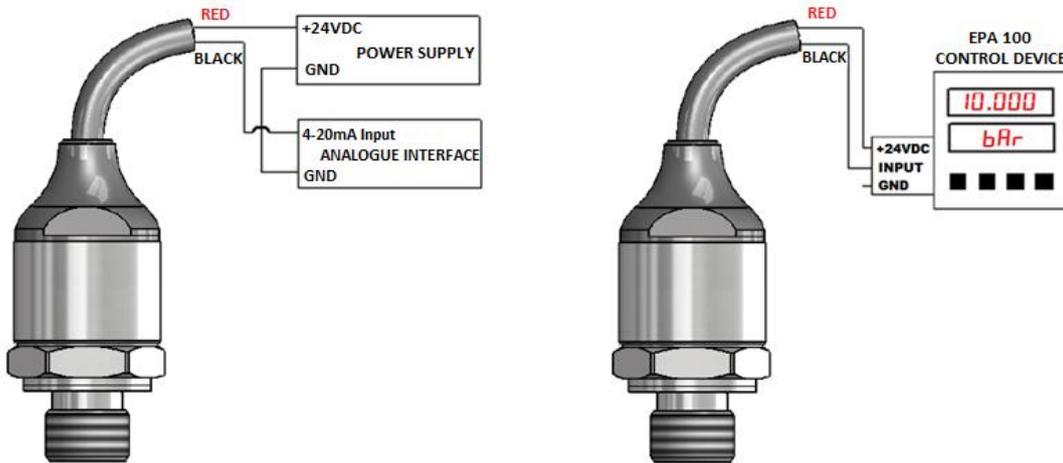
3 Wire 0-10VDC Connection Socket Pin No	Signal
1	GND
2	+12...30 VDC (Supply)
3	0...10VDC Analogue Output

**Sample Connection:**



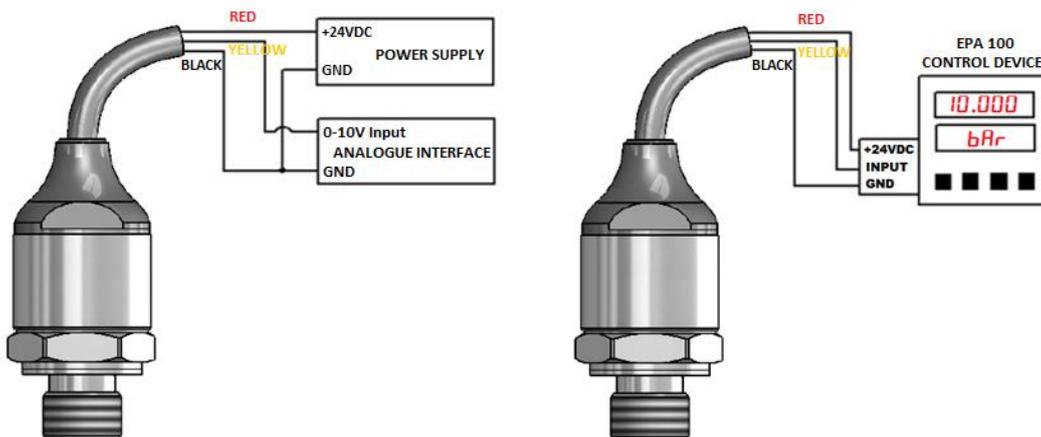
2 Wire 4-20mA Connection Cable Color	Signal
BLACK	4...20mA Analogue Output
RED	+12...30 VDC (Supply)

**Sample Connection:**



3 Wire 0-10VDC Connection Cable Color	Signal
BLACK	GND
RED	+12...30 VDC (Supply)
YELLOW	0...10VDC Analogue Output

**Sample Connection:**



**WARNING**

Wrong connections disrupt the sensor.

If water pressure measurement is used, insert M5 valve to the transmitter. Otherwise, the pressure peaks of water pump disrupts the transmitter.

## ORDER CODING

## Model

### Output Signal

Voltage Output Product ( 12...30VDC )

V : 0-10VDC ( standard )  
 V1 : 0-5VDC  
 V2 : 1-6VDC  
 V3 : 0,5-4,5VDC  
 V4 : 0,5-5,5VDC  
 V5 : 1-5VDC  
 V6 : 1-10VDC

Ratiometric Products ( 5VDC Supply)

V8 : Ratiometric 0.5-4.5VDC  
 V9 : Ratiometric 0-5VDC

Current Output Products ( 12...30VDC )

A : 4-20mA ( standard )  
 A0 : 0-20mA ( 3 wire connection )

\* Ask for other options.

### Sensor

C : Ceramic ( standard NBR Oring )  
 S : Silicon

\*All mBar up to 1 Bar, Vacuum models and 600BAR models are Silicone, other pressure models are produced in ceramics.

WARNING: Silicone model is recommended for water applications. The ceramic model can be used in all other applications.

CF : Viton=FKM Oring  
 CE : EPDM Oring  
 SF : Silicon Viton = FKM Oring  
 SE : Silicon EPDM Oring

### Body Material/ Custom Coding

Empty : Stainless 303  
 E316 : Stainless z 316L

\* Ask for other options.

**BCT 22** - **10Bar** - **A** - **G1/4** - **C** - **S30** - **-**

### Working Pressure Range

0...-100mBar : Vacuum 0....-100mbar  
 -1...0Bar : Vacuum -1...0BAR  
 0...-1Bar : Vacuum (Reverse Calibration )

100mBar : 0...100mbar  
 250mBar : 0...250mbar  
 400mBar : 0...400mbar  
 600mBar : 0...600mbar

1Bar : 0...1BAR  
 10Bar : 0...10BAR  
 16Bar : 0...16BAR  
 25Bar : 0...25BAR  
 100Bar : 0...100BAR  
 160Bar : 0...160BAR  
 250Bar : 0...250BAR  
 400Bar : 0...400BAR  
 600Bar : 0...600BAR

\* Ask for other options.

### Mechanical Connection

G1/4 : G1/4 Connection  
 G1/8 : G1/8 Connection  
 G1/2 : G1/2 Connection  
 NPT1/4 : NPT1/4 Connection  
 NPT1/8 : NPT1/8 Connection  
 NPT1/2 : NPT1/2 Connection  
 M14 : M14x1 Connection  
 7/16M : UNF7/16x20M Connection  
 7/16F : UNF7/16x20F Connection

\* Ask for other options.

### Electrical Connection

S30 : DIN43650-A type large type socket  
 S31 : DIN43650-C type small type socket  
 S12 : M12x1 4 pin  
 S15 : M12x1 4 pin ( 1 supply, 3 output )  
 S32 : Packard socket  
 2M : 2 Meter Cable

\* Ask for other options.

### Sample Code :

BCT 22 100mBar A G1/4 S S30

Features: 0...100mbar working range, 4-20mA analogue output ( 2 wire connection ), G1/4 connection, socketed , Silicon membrane, stainless 303 body

BCT 22 10Bar A G1/4 C S30

Features: 0...10BAR working range, 4-20mA analogue output ( 2 wire connection ), G1/4 connection, socketed, Ceramic membrane, stainless 303 body

\***Viton (FKM-Flourel)** : It is resistant to all types of grease, oil and solvent between -30 ° C and 225 ° C. It is resistant to many chemicals. When low gas permeability is requested and vacuum systems, it gives very good results.

\***Ethylene Propylene Rubber (EPDM)** : Can be used between -40°C and 145°C. Its resistance to phosphate, ester fluids, automotive brake oils and steam is very good.

## BY-PRODUCTS

### Pressure Transmitter Coolers

180 °C and 250 °C

### Signal Cables

PUR ve PVC 3x0,14 / 5x0,14 / 8x,14mm

### EPA Series Measurement and Control Devices

[48x48mm modeli EPA 100](#)

[74x74mm modeli EPA 200](#)

[96x48mm modeli EPA 300](#)



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