

### BTT 22

"Thin-Film Steel Diaphragm, Suitable for Chemical Applications, Resistant to Vibrations"



- Completely welded thin-film steel diaphragm structure that does not require o-ring
- 23 mm diameter stainless steel housing
- Different options up to 2000 Bar
- Resistant to vibrations
- Resistant to chemicals
- 4...20mA / 0...10VDC etc. different analogue output options
- G1/4, G1/2, NPT1/4, NPT1/2, M14x1 mechanical connection options
- EMC and reverse polarity protection
- High accuracy and stability
- Excellent long-term operation

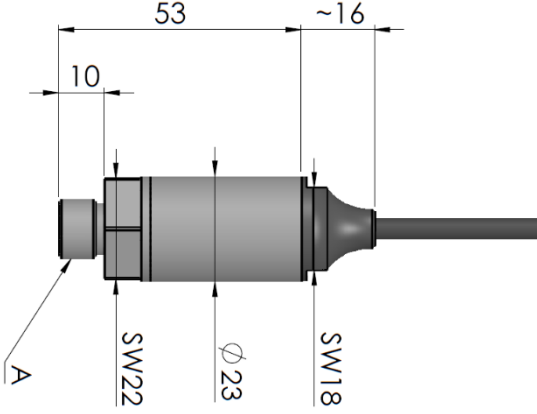
BTT 22 series pressure transmitter is resistant to vibrations and ideal for use in difficult areas such as chemical applications with its completely welded thin-film steel diaphragm structure that does not require o-ring. Various analog output, mechanical connection and connector options are optionally available.

## UYGULAMA ALANLARI

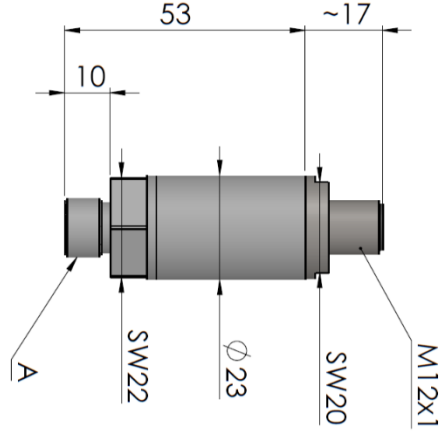
- Machine tools
- HVAC
- Process technology
- Hydraulics
- Refrigeration
- Water treatment

## MEKANİK ÖLÇÜLER (mm)

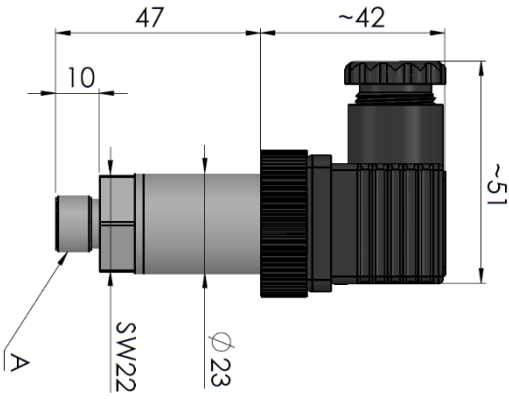
**CABLE**



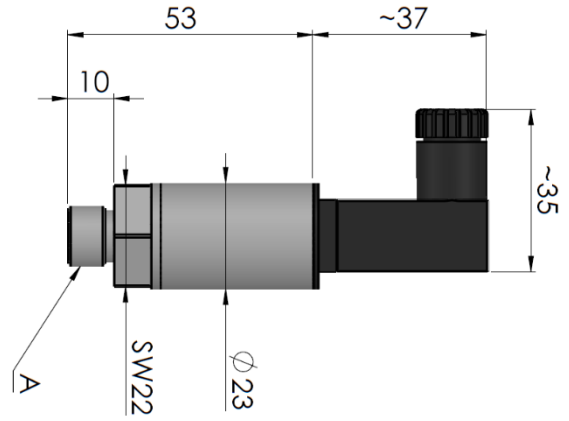
**M12 CONNECTOR**



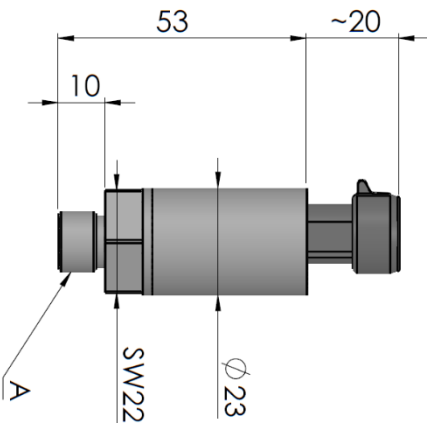
**DIN43650-A CONNECTOR**



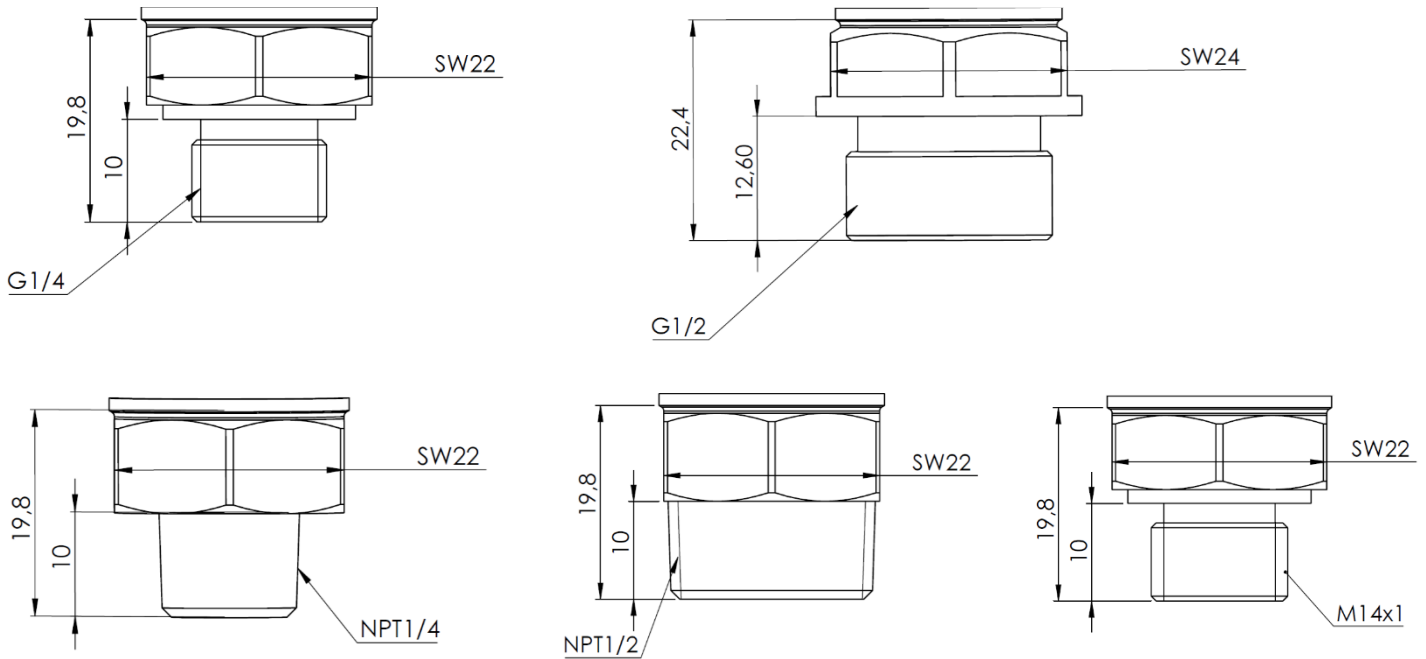
**DIN43650-C CONNECTOR**



**PACKARD CONNECTOR**



## PROCESS CONNECTION (A)

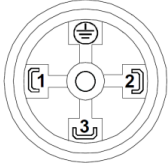
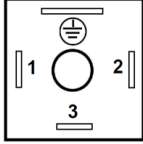
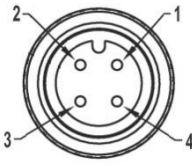
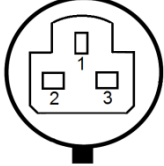
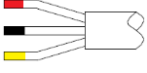


- \* In the case of the G1/2 model, the dimension of key slot is 24mm. All other models are 22mm.
- \*\* Do not turn the product by holding from socket during installation. Otherwise, the product may be damaged.

## TECHNICAL FEATURES

|                                     |   |                      |                  |                 |                 |                    |
|-------------------------------------|---|----------------------|------------------|-----------------|-----------------|--------------------|
| <b>Measuring Principle</b>          | Thin-film on steel diaphragm  |                      |                  |                 |                 |                    |
| <b>Measuring Range</b>              | 6, 10, 16, 25, 40, 100, 250, 400, 600, 1000 and 2000 bar  |                      |                  |                 |                 |                    |
| <b>Over Pressure</b>                | %300FS <1000Bar, %150FS ≥1000Bar  |                      |                  |                 |                 |                    |
| <b>Burst Pressure</b>               | %500FS (Max. 4000 bar)  |                      |                  |                 |                 |                    |
| <b>Output Signal</b>                | <b>4...20mA (2)</b>   | <b>0...20mA (3)</b>  | <b>0...10VDC</b> | <b>1...6VDC</b> | <b>0...5VDC</b> | <b>Ratiometric</b> |
| <b>Supply Voltage</b>               | 8 ... 32 VDC  | 12 ... 30 VDC        | 12 ... 30 VDC    | 12 ... 30 VDC   | 12 ... 30 VDC   | 5 VDC              |
| <b>Operating Current</b>            | 30 mA max.  |                      |                  |                 |                 |                    |
| <b>Accuracy</b>                     | ±0.5%FS (@0°C~70°C)   |                      |                  |                 |                 |                    |
| <b>Long Term Stability</b>          | ≤±0.1 FS/ yil   |                      |                  |                 |                 |                    |
| <b>Zero temperature drift</b>       | ±%0.03FS/°C   |                      |                  |                 |                 |                    |
| <b>Full scale temperature drift</b> | ±%0.03FS/°C   |                      |                  |                 |                 |                    |
| <b>Response time</b>                | 25ms (standard) %10...%90 nominal pressure<br>1ms, 5ms, 125ms (optional)                              |                      |                  |                 |                 |                    |
| <b>Life Time</b>                    | 1x10 <sup>8</sup> cycles  |                      |                  |                 |                 |                    |
| <b>Operating Temperature</b>        | -40°C ... +85°C   |                      |                  |                 |                 |                    |
| <b>Storage Temperature</b>          | -40°C ... +85°C   |                      |                  |                 |                 |                    |
| <b>EMC Protection</b>               | Immunity  | IEC 61000-6-2        |                  |                 |                 |                    |
|                                     | Emission  | IEC 61000-6-3        |                  |                 |                 |                    |
| <b>Insulation Resistance</b>        | ≥1000MΩ/500V AC   |                      |                  |                 |                 |                    |
| <b>Electrical Connection</b>        | DIN43650-A, DIN43650-C, M12, Packard or cable   |                      |                  |                 |                 |                    |
| <b>Process Connection</b>           | G1/4, G1/2, NPT1/4, NPT1/2, M14x1   |                      |                  |                 |                 |                    |
| <b>Mounting Torque</b>              | 15 ... 20 Nm  |                      |                  |                 |                 |                    |
| <b>Material</b>                     | Pressure  | 316L Stainless Steel |                  |                 |                 |                    |
|                                     | Process   | 316L Stainless Steel |                  |                 |                 |                    |
|                                     | Body  | 304L Stainless Steel |                  |                 |                 |                    |
| <b>Protection</b>                   | IP65 or IP67<br>**IP67 protection is provided if M12 connector models are equipped with press-printed |                      |                  |                 |                 |                    |

## ELECTRICAL CONNECTIONS

|                |            |  |  |  |     |  |  |
|----------------|------------|---|---|--|-----|---|---|
|                |            | DIN D43650-A  | DIN D43650-C  | M12 / 4 pin  |     | PACKARD   | CABLE   |
|                |            | S30   | S31   | S12  | S15 | S32   | COLOR   |
|                |            | PIN NO  | PIN NO  | PIN NO   |     | PIN NO  |   |
| CURRENT OUTPUT | +Vcc       | 2   | 2   | 2  | 1   | B   | RED   |
|                | Analog Out | 1   | 1   | 1  | 3   | C   | BLACK   |
| VOLTAGE OUTPUT | +Vcc       | 2   | 2   | 2  | 1   | B   | RED   |
|                | GND        | 1   | 1   | 1  | 3   | C   | BLACK   |
|                | Analog Out | 3   | 3   | 3  | 2   | A   | YELLOW  |

\* For IP67 protection at model with M12 socket, press-printed cable should be used. Otherwise, it can not be used under IP67 conditions.

\*\* PVC cable is used as standard in the model with cable.

\*\*\* On models with the PACKARD socket, the letter of pin numbers are 1(C), 2(B), 3(A).

## PRESSURE RANGE SELECTION

| Code    | Pressure Range | Overpressure | Burst Pressure |
|---------|----------------|--------------|----------------|
| 6Bar    | 0~6Bar         | %300FS       | %500FS         |
| 10Bar   | 0~10 Bar       | %300FS       | %500FS         |
| 16Bar   | 0~16Bar        | %300FS       | %500FS         |
| 25Bar   | 0~25Bar        | %300FS       | %500FS         |
| 40Bar   | 0~40Bar        | %300FS       | %500FS         |
| 100Bar  | 0~100Bar       | %300FS       | %500FS         |
| 250Bar  | 0~250Bar       | %300FS       | %500FS         |
| 400Bar  | 0~400Bar       | %300FS       | %500FS         |
| 600Bar  | 0~600Bar       | %300FS       | %500FS         |
| 1000Bar | 0~1000Bar      | %150FS       | %500FS         |
| 2000Bar | 0~2000Bar      | %150FS       | %500FS         |

## ORDER CODE

### Output Signal

Voltage Output Product

- 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

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

Current Output Products

- A : 4-20mA (2-wire) (standard)
- A0 : 0-20mA (3-wire)

\* Ask for other options.

### Electrical Connection

- S12 : M12x1 4 pin
- S13 : M12x1 5 pin (for CANopen output)
- S15 : M12x1 4 pin (1 supply, 3 output)
- S30 : DIN43650-A type large type socket
- S31 : DIN43650-C type small type socket
- S32 : Packard socket
- 2M : 2 meters cable

\* Ask for other options.

BTT 22

250Bar

A

G1/4

S30

### Pressure Range

Different options from 6 Bar to 2000 Bar  
\*See. "Pressure selection table"

### Mechanical Connection

- G1/4
- G1/2
- NPT1/4
- NPT1/2
- M14

\* Ask for other options.

**Sample Order Code:** BTT 22 250Bar A G1/4 S30