

# THIN-FILM PRESSURE TRANSMITTER

## BTT 26

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



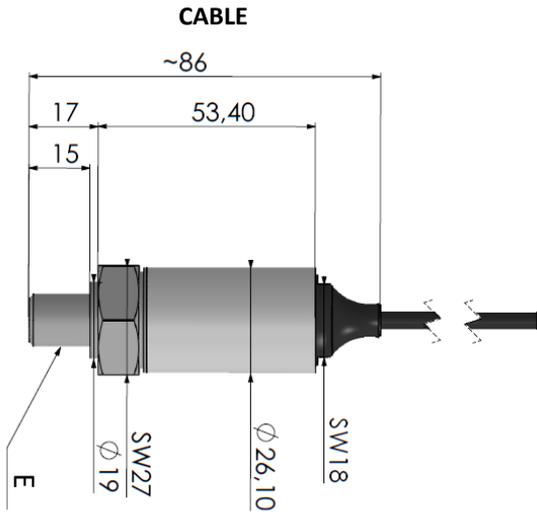
- Completely welded thin-film steel diaphragm structure that does not require o-ring
- 26 mm diameter stainless steel housing
- Different options up to 2000 Bar
- 4...20mA / 0...10VDC / 0,5...4,5V ratiometric etc. different analogue output options
- Resistant to vibrations
- Resistant to chemicals
- EMC and reverse polarity protection
- High accuracy and stability
- Excellent long-term operation

BTT 26 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. Various analog output, mechanical connection and connector options are optionally available.

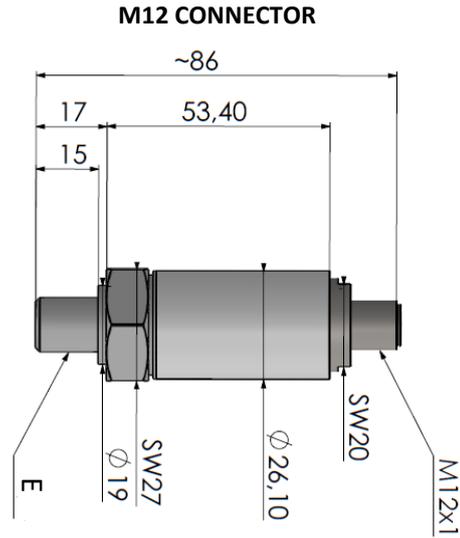
### APPLICATIONS

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

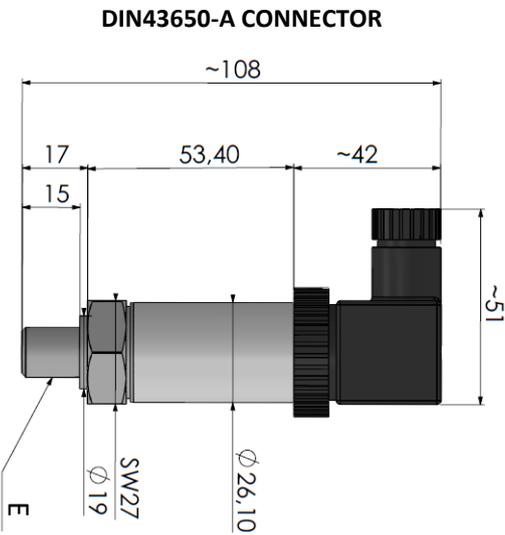
# MECHANICAL DIMENSIONS (mm)



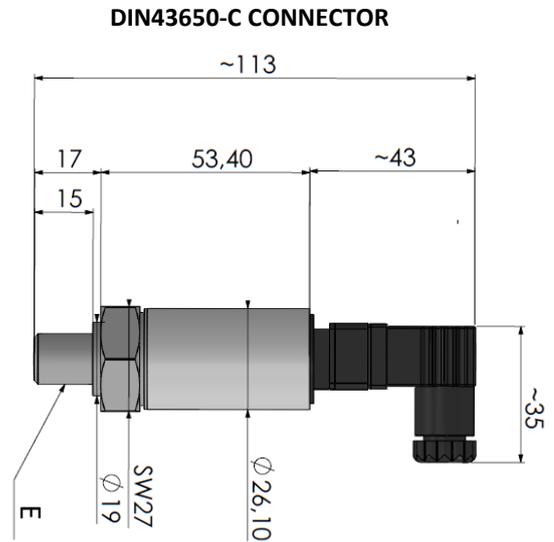
E (Process connection) : G1/4, M12x1.5 (Opt. others)



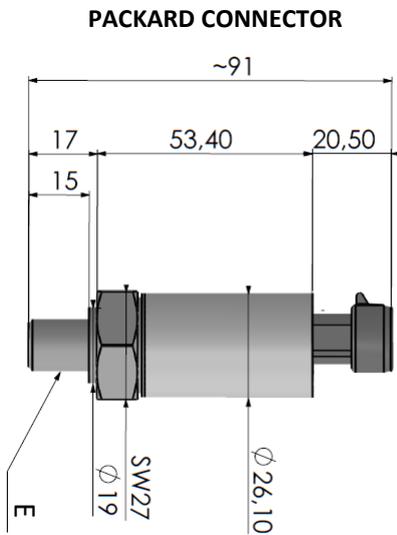
E (Process connection) : G1/4, M12x1.5 (Opt. others)



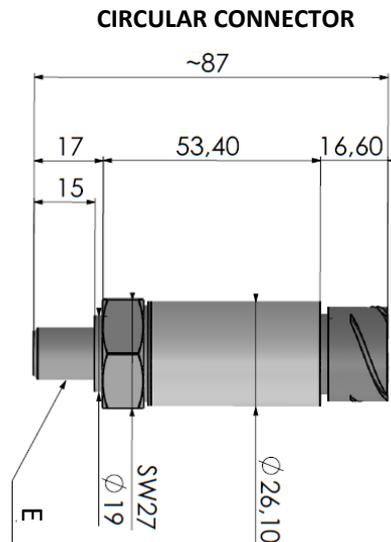
E (Process connection) : G1/4, M12x1.5 (Opt. others)



E (Process connection) : G1/4, M12x1.5 (Opt. others)



E (Process connection) : G1/4, M12x1.5 (Opt. others)

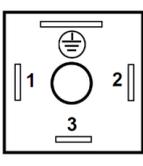
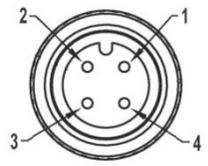
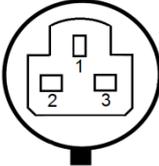
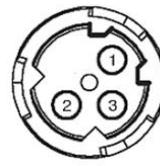
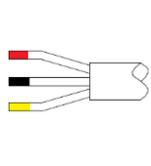


E (Process connection) : G1/4, M12x1.5 (Opt. others)

## TECHNICAL SPECIFICATIONS

<b>Measuring Principle</b>	Thin-film on steel diaphragm					
<b>Measuring Range</b>	316L (standard)	Options from 0...5 Bar to 0...1000Bar				
	17-4PH (optional)	Options from 0...5 Bar to 0...2000Bar				
<b>Proof Pressure</b>	316L	%150FS				
	17-4PH	%300FS <1000Bar, %150FS ≥1000Bar				
<b>Burst Pressure</b>	316L	%500FS				
	17-4PH	%500FS <1000Bar, %300FS 1000Bar ≤pressure≤ 2000Bar				
<b>Output Signal</b>	<b>4...20mA (2 wire)</b>	<b>0...20mA (3 wire)</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>	%0.5FS (@0°C~70°C)					
<b>Long Term Stability</b>	≤±%0.2 FS/ year					
<b>Zero offset temperature coefficient</b>	≤±%0.03 fso/°C					
<b>Span temperature coefficient</b>	≤±%0.03 fso/°C					
<b>Response time</b>	25ms (standard) %10...%90 nominal pressure					
	1ms, 5ms, 125ms (optional, only available on models with current output)					
<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>	100MΩ/250VDC					
<b>Electrical Connection</b>	DIN43650-A, DIN43650-C, M12, Packard, Circular Connector or Cable					
<b>Process Connection</b>	G1/4, M12x1,5 (optional others)					
<b>Mounting Torque</b>	15 ... 20 Nm					
<b>Material</b>	O-Ring	Viton				
	Wetted parts (sensor and process connection)	17-4PH or 316L				
	Housing	304L or 316L				
<b>Protection</b>	IP65 or IP67 **IP67 protection is provided if connector models are equipped with press-printed connectors.					

## ELECTRICAL CONNECTIONS

								
		DIN D43650-A	DIN D43650-C	M12 / 4 pin		PACKARD	CIRCULAR	CABLE
		S30	S31	S12	S15	S32	S33	COLOR
		PIN NO	PIN NO	PIN NO		PIN NO	PIN NO	
CURRENT OUTPUT	+Vcc	2	2	2	1	B	1	RED
	Analog Out	1	1	1	3	C	2	BLACK
VOLTAGE OUTPUT	+Vcc	2	2	2	1	B	1	RED
	GND	1	1	1	3	C	2	BLACK
	Analog Out	3	3	3	2	A	3	YELLOW

\* For IP67 protection at model with connectors, 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).

\*\*\*\* Only S30 socket type can be selected for 3-wire 0-20mA analog output. Other socket types or wired models cannot be selected.

## PRESSURE RANGE SELECTION

17-4PH SENSOR			
Code	Pressure Range	Overpressure	Burst Pressure
5Bar	0~5 Bar	%300FS	%500FS
10Bar	0~10 Bar	%300FS	%500FS
25Bar	0~25 Bar	%300FS	%500FS
40Bar	0~40 Bar	%300FS	%500FS
60Bar	0~46 Bar	%300FS	%500FS
100Bar	0~100 Bar	%300FS	%500FS
250Bar	0~250 Bar	%300FS	%500FS
400Bar	0~400 Bar	%300FS	%500FS
600Bar	0~600 Bar	%300FS	%500FS
1000Bar	0~1000 Bar	%150FS	%300FS
1600Bar	0~1600 Bar	%150FS	%300FS
2000Bar	0~2000 Bar	%150FS	%300FS

316L SENSOR			
Code	Pressure Range	Overpressure	Burst Pressure
5Bar	0~5 Bar	%150FS	%500FS
10Bar	0~10Bar	%150FS	%500FS
16Bar	0~16 Bar	%150FS	%500FS
25Bar	0~25 Bar	%150FS	%500FS
40Bar	0~40 Bar	%150FS	%500FS
60Bar	0~60 Bar	%150FS	%500FS
100Bar	0~100 Bar	%150FS	%500FS
160Bar	0~160 Bar	%150FS	%500FS
250Bar	0~250 Bar	%150FS	%500FS
400Bar	0~400 Bar	%150FS	%500FS
600Bar	0~600 Bar	%150FS	%500FS
1000Bar	0~1000 Bar	%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 connector  
 S31 : DIN43650-C type small type connector  
 S32 : Packard connector  
 S33 : Circular connector  
 2M : 2 meters cable

\*Only S30 socket can be selected for 3-wire 0-20mA (A0) analog output. Other socket types or wired models cannot be selected.

\* Ask for other options.

### Housing Material

E304 : 304L  
 E316 : 316L

\* Ask for other options.

BTT 26
-
10Bar
-
V8
-
M12x1,5
-
S32
-
E306
-
E304

#### Pressure Range

Different options from 10 Bar to 2000 Bar

\*See page4, pressure selection table

#### Process Connection

G1/4 : G1/4 Connection  
 M12x1,5 : M12x1,5 Connection

\* Ask for other options.

#### Sensor Material

E630 : 17-4PH (standard)  
 E316 : 316L (optional)

**Sample Order Code: BTT26 -10Bar-V8-M12x1,5-S32-E316-E304**