

# TTR

## Pressure shocks absorber



### Material of housing

- ▶ anticorrosive steel

### Max. operating and storage temperature

- ▶ + 95 °C

### Max. operating pressure

- ▶  $P_{max}$  70 MPa

### Characteristics

- ▶ Pressure shock absorber is based on multi-chamber principle. Main advantage of this system is that there is no chance to stuffing. This is reason why is comfortable to use this device to measuring of warming. This device is very reliable.
- ▶ Exams which have been done on this device had proved that this is able to absorb shock min. 20 msec on range. It is able to protect pressure transmitter from pressure shocks in standing 100 msec only in case common overloading.

Pressure shocks absorber has been developed especially for pressure transmitters with strain-gauge sensors which are able to tolerate quadruple-high pressure overloading. There can originate pressure shocks during introduction (boiler unit, junction exchange stationary) these shocks have a big intensity which can destroy pressure sensors.

By analysing data from several years we had known that 66% of pressure sensors (from producers from over the world) which work on strain-gauge principle has been destroyed by pressure shocks.

### Preferred areas of use are



boiler unit, junction exchange stationary, etc.



## Mounting instructions

During operating with this device keep following instructions:

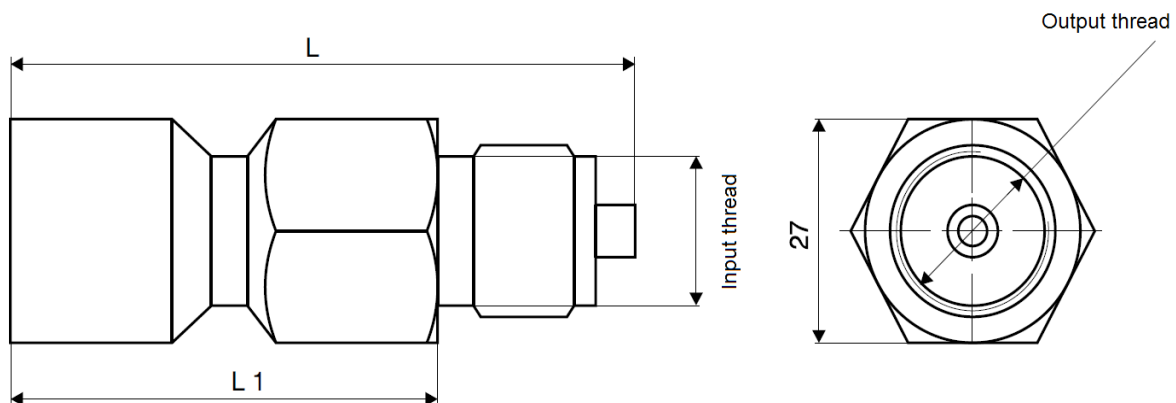
- For measuring of steam in front PSA pre-set up condensing loop. Operating temperature is to +95 °C.
- We would like to recommend you to place suitable valve front this device. As an easy dismantling and protecting of measuring place during defecation.
- This device has connecting scroll which is determines for test manometrical valve or tap of right-left nut.
- Mounting must be done with spanner 27 in point of hexagon. Design of pressure connection of sensor according to DIN 3852 is sealed with O-ringlet – it is part of supplies of sensor. Design according EN 837-1/-3 <sup>1</sup> is sealed with flat sealing for manometrical screwing 17x6,5x2 Cu, Al – it is not part of supplies commonly.
- Guaranty time of this device is 24 months if mounting instruction will be keep. Guaranty time starts from month of producing. This information is written on production label – this date is the same like date of expedition.

## Characteristic proportions of TTR

Type of product	L (mm)	L 1 (mm)	Input thread	Output thread
TTR 1	70,5	50,5	M20x1,5 EN 837-1/-3 <sup>1</sup>	M20x1,5
TTR 2	70,5	50,5	M20x1,5 EN 837-1/-3 <sup>1</sup>	G 1/2"
TTR 3	63,5	43,5	M20x1,5 EN 837-1/-3 <sup>1</sup>	G 1/4"
TTR 4	70,5	50,5	G 1/2" EN 837-1/-3 <sup>1</sup>	G 1/2"
TTR 5	70,5	50,5	G 1/2" EN 837-1/-3 <sup>1</sup>	M20x1,5
TTR 6	56,5	43,5	G 1/4" EN 837-1/-3 <sup>1</sup>	G 1/4"
TTR 7	63,5	43,5	G 1/2" EN 837-1/-3 <sup>1</sup>	G 1/4"
TTR 8	63,5	50,5	G 1/4" EN 837-1/-3 <sup>1</sup>	M20x1,5
TTR 9	63,5	50,5	G 1/4" EN 837-1/-3 <sup>1</sup>	G 1/2"

<sup>1</sup> EN 837-1/-3 matches original DIN 16 288

## Dimensions (in mm)



This data sheet contains product specification, properties are not guaranteed. Subject to change without notice.

## Ordering code Accessories

23.08.2024

**Accessories**
**Kód / Code**
**Pressure shock absorbers**

TTR 1 M 20x1,5 EN 837-1/-3 / M 20x1,5 (DIN 3852, EN 837-1/-3)	TTR 1
TTR 2 M 20x1,5 EN 837-1/-3 / G 1/2" (DIN 3852, EN 837-1/-3)	TTR 2
TTR 3 M 20x1,5 EN 837-1/-3 / G 1/4" (DIN 3852, EN 837-1/-3)	TTR 3
TTR 4 G 1/2" EN 837-1/-3 / G 1/2" (DIN 3852, EN 837-1/-3)	TTR 4
TTR 5 G 1/2" EN 837-1/-3 / M 20x1,5 (DIN 3852, EN 837-1/-3)	TTR 5
TTR 6 G 1/4" EN 837-1/-3 / G 1/4" (DIN 3852, EN 837-1/-3)	TTR 6
TTR 7 G 1/2" EN 837-1/-3 / G 1/4" (DIN 3852, EN 837-1/-3)	TTR 7
TTR 8 G 1/4" EN 837-1/-3 / M 20x1,5 (DIN 3852, EN 837-1/-3)	TTR 8
TTR 9 G 1/4" EN 837-1/-3 / G 1/2" (DIN 3852, EN 837-1/-3)	TTR 9

**Cooling element**

Condensation loop rolled 1780069 carbon steel 11523 (max 400 °C)	1000847
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**Power supply**

ZS - 030 (for intrinsic safety Eex ia IIC T4)	1001290
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**Accessories for DIN 11851:**

Cup nut DN025, 1.4301	1001029
Cup nut DN032, 1.4301	1002471
Cup nut DN040, 1.4301	1000457
Cup nut DN050, 1.4301	1001028
Seal PERBUNAN DN 25	1002883
Seal PERBUNAN DN 32	1002881
Seal PERBUNAN DN 40	1002109
Seal PERBUNAN DN 50	1000831
Welding male part DN 25, 1.4301	1001030
Welding male part DN 32, 1.4301	1002884
Welding male part DN 40, 1.4301	1002882
Welding male part DN 50, 1.4301	1001925

**Accessories for CLAMP:**

Clamp-connecting piece S-CLAMP DN025, 1.4404	1002359
Clamp-connecting piece S-CLAMP DN040, 1.4404	1001067
Clamp-connecting piece S-CLAMP DN050, 1.4404	1001040
Clamp-quick coupling CLAMP DN 1" 1.4301 for DN 25-40	1001039
Clamp-quick coupling CLAMP DN 2" 1.4301 for DN 50	1001041
Seal/clamp DN040 SILI	1002213

**Connectors:**

Female plug ISO 4400	5000014
Female plug M 12 x 1 (5-pin) - angled, plastic	1000575
Female plug ISO 4400 + 2 m PVC cable	5023199
Connector ISO 4400-SET (socket, plug, nut, seal, screw)	5002232



Surcharges for calibration are not subject to any discounts. Subject to change.

This document contains the specification for ordering the product;

detailed technical parameters of the product and its possible variants are given in the data sheet.

BD SENSORS reserves the right to change sensor specifications without further notice.



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