

### 12.1.1 TECHNICAL DATA

**MAX OPERATING PRESSURE (PS):** 360 bar

**PRESSURE TEST (PT):** 1.43 x PS

**WORKING TEMPERATURE:** -40 ÷ +150 °C

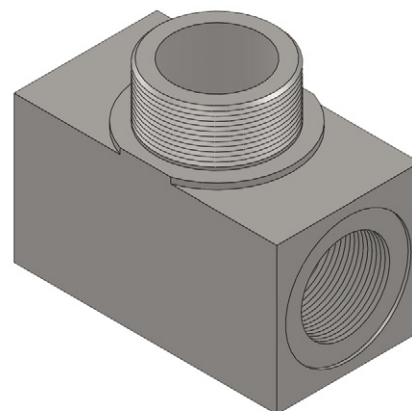
**FLUID VISCOSITY RANGE:** 10 ÷ 400 cSt

**RECOMMENDED VISCOSITY:** 36 cSt

**BODY MATERIAL:** - phosphated carbon steel or galvanized carbon steel in compliance with Directive 2002/95/CE (RoHS) to resist to corrosion.  
 - nickel coating 25 - 40 μ  
 - stainless steel AISI 316L

**DIMENSIONS:** see Table 12.1h

**WEIGHT:** see Table 12.1h

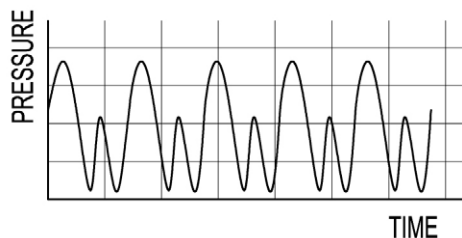


12.1a

### 12.1.2 APPLICATIONS

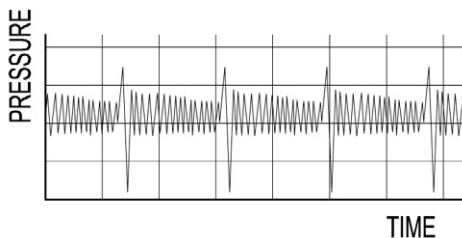
The pulsation damper is particularly suitable for: hydraulic systems, displacement pumps of all types, sensitive measurement and control instruments and manifolds in process circuits in the chemical industry. The EPE pulsation damper prevents pipe breaks caused by material fatigue, pipe oscillations and irregular flow rates; it protects valves, control devices and other instruments and improves noise level damping.

without damper



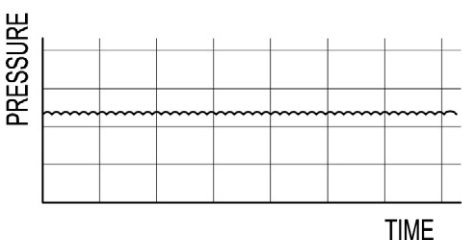
12.1b

with accumulator  
 (standard connection bladder accumulator)



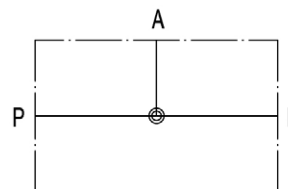
12.1c

with accumulator and pulsation damper



12.1d

### 12.1.3 HYDRAULIC SYMBOL



12.1e

### 12.1.4 DESCRIPTION

The pulsation damper adapter has two fluid connections and can therefore be fitted directly inline and connected directly to the accumulator (bladder or diaphragm ones).

The flow is directed straight to the bladder or diaphragm by diverting it in the fluid valve. This causes direct contact of the flow with the bladder or diaphragm which, in an almost inertia less operation and balances the flow rate fluctuations via the gas volume.

It particularly compensates higher frequency pressure oscillations. The pre-charge pressure is adjusted to individual operating conditions.

#### Installation

As close as possible to the pulsation source. Mounting position preferably vertical (gas valve pointing upwards).

### 12.1.5 SEALS-TEMPERATURE-LIQUID COMPATIBILITY

When selecting the pulsation damper variant, observe the following non-binding notes with regard to hydraulic fluid, diaphragm material and the permissive temperature range.

Code letter	Polymer	ISO	Temperature range (°C)	Some of the liquids compatible with the polymer
P	Standard nitrile (Perburan)	NBR	-20 ÷ +80	Aliphatic hydrocarbons (propane, butane, gasoline, oils, mineral greases, diesel fuel, fuel oil, kerosene), mineral greases and oils, HFA - HFB - HFC fluids, many dilute acids, alkalis, saline solutions, water, water glycol.
F	Low temperature nitrile	NBR	-40 ÷ +70	The same as with standard nitrile + a number of different types of Freon. (This contains less acrylonitrile than the standard and is therefore more suitable for low temperatures, but its chemical resistance is slightly lower).
K	Hydrogenated nitrile	HNBR	-30 ÷ +130	The same as with standard nitrile but with excellent performance at high and low temperatures.
B	Butyl	IIR	-30 ÷ +100	Hot water up to 100°C, glycol-based brake fluids, many acids and bases, salt solutions, polar solvents such as alcohols, ketones and esters, polyglycol-based hydraulic fluids (HFC fluids) and bases of esters of phosphoric acid (HFD-R fluids), silicone oils and greases, resistance to ozone, aging and weathering.
E	Ethylene-Propylene	EPDM	-30 ÷ +100	Hot water up to 100°C, glycol-based brake fluids, many organic and inorganic acids, detergents, solutions of sodium and potassium, phosphate ester-based hydraulic fluids, (HFD-R), silicone oils and greases, many polar solvents (alcohol, ketones, esters), Skydrol LD4 and 500B-4, resistance to ozone, aging and weathering.
Y	Epichloridrin	ECO	-30 ÷ +110	Mineral oils and greases, aliphatic hydrocarbons (propane, butane and gasoline), silicone oils and greases, water at room temperature, resistance to ozone, aging and weathering.
V	Fluorocarbon	FPM	-10 ÷ +150	Mineral oils and greases, non-flammable fluids of HFD group, silicone oils and greases, animal and vegetable oils and greases, aliphatic hydrocarbons (gasoline, butane, propane, natural gas), aromatics hydrocarbons (benzene, toluene), chlorinated hydrocarbons (Tetrachloroethylene, carbon tetrachloride), fuel (regular, super and containing methanol), excellent resistance to ozone, weathering and aging.

For other hydraulic fluid and/or temperatures, please contact us.

12.1f

### 12.1.6 ORDER CODE

1	2	3	4	5	6	7	8
TA	360	A	9	G	8	-	C P

<b>1</b>	<b>Series</b>
Pulse damper adapter	= TA

<b>2</b>	<b>Max working pressure (PS) (bar)</b>
30	= 30
60	= 60
210	= 210
360	= 360

<b>3</b>	<b>Accumulator port connection</b>
(Diaphragm accumulator) BSP ISO 228	= G
(Bladder accumulator) BSP ISO 228 with chamfer for OR	= A

<b>4</b>	<b>Dimension of accumulator connection</b>
For the type of connection G:	
G:	1/2" = 4
	3/4" = 5
A:	3/4" = 5
	1"1/4" = 7
	2" = 9
	2"1/2" = 10
	4" = 13

<b>8</b>	<b>Seal material</b>
Nitrile rubber (NBR)	= P
Nitrile rubber for low temp	= F
Hydrogenated Nitrile(HNBR)	= K
Butyl (IIR)	= B
Ethylene-propylene (EPDM)	= E
Epichlorohydrin (ECO)	= Y
Fluorocarbon (FKM)	= V

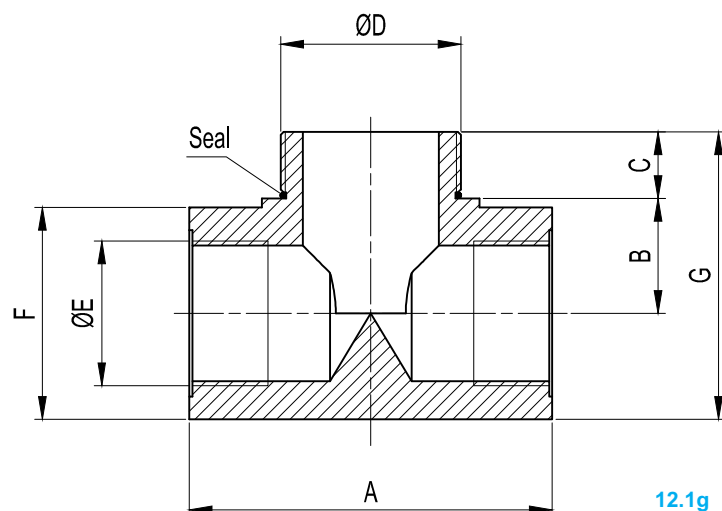
<b>7</b>	<b>Body material</b>
Carbon steel	= C
Nickel coated carbon steel 25 μ	= N
Nickel coated carbon steel 40 μ	= M
Stainless steel (150 bar)	= X
Duplex stainless steel (210 bar)	= D

<b>6</b>	<b>Dimension of fluid connection</b>
For the type of connection G:	
G:	1/2" = 4
	3/4" = 5
	1" = 6
	1"1/4" = 7
	1"1/2" = 8
	2" = 9
	2"1/2" = 10
	3" = 11
Other upon request	

<b>5</b>	<b>Fluid port connection</b>
BSP ISO 228 female	= G
Other upon request	

Special variants on request

## 12.1.7 DIMENSIONS



12.1g

Pulsation dumper order code	A mm	B mm	C mm	ØD BSP	ØE BSP	F mm	G mm	Seal order code	Weight Kg
TA360A9G8-**/*	120	38	22	2"	1" 1/2	∅ 70	95	0010R3218-*	3.3
TA360A7G6-**/*	90	27	18	1" 1/4	1"	∅ 50	70	0010R3150-*	1.3
TA360A5G5-**/*	65	19	14	3/4"	3/4"	∅ 40	53	0010R2093-*	0.54
TA360A4G4-**/*	46	16	12	1/2"	1/2"	∅ 30	43	0012B21.5x28.7x2.5-**/*	0.24
TA30A13G11-**/*	240	112	21	4"	3"	∅114.5	190	0010R4425-*	3.3
TA60A10G9-**/*	180	82	22	2" 1/2	2"	∅73.5	141	0010R3281-*	2.8
TA60A9G8-**/*	150	70	22	2"	1" 1/2	∅60.5	122	0010R3218-*	2.3

\* Gasket material

\*\* Component material

12.1h

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In the spirit of continuous improvement, our products may be changed.