FLUID PUMPS

PREMIUM double diaphragm pumps | high-pressure double diaphragm pumps
electrical piston pumps | pneumatic piston pumps

tim® TRON
Ready for Future

made
in
Germany

timmer

FOR MORE THAN 45 YEARS

Timmer GmbH is your reliable partner in the area of pneumatics, vacuum technology as well as pumping and dosing technology. With more than 150 employees, we develop, manufacture and sell an extensive array of products at two factories - ranging from customised solutions through to technical accessories. In short: We offer you everything you need in your daily practice. Our products are known under the brand names Timmer and TIVAtec all over the world.

Fluid pumps

Vacuum technology & Vacuum lifting systems

Industrial pneumatics & accessories

Fluidfit

Development

Design

Manufacturing of special solutions

Warehousing & Logistics

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tim® ECO | PREMIUM electrical piston pumps and material back-pressure regulators

tim® TRON | Intelligent sensor technology

tim® COA | pneumatic PREMIUM coagulant pumps

Our catalogues

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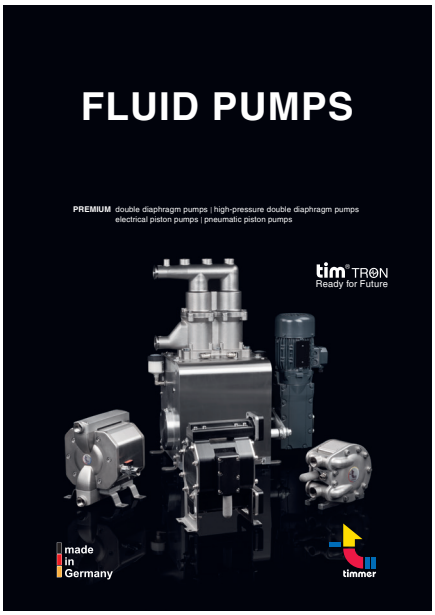

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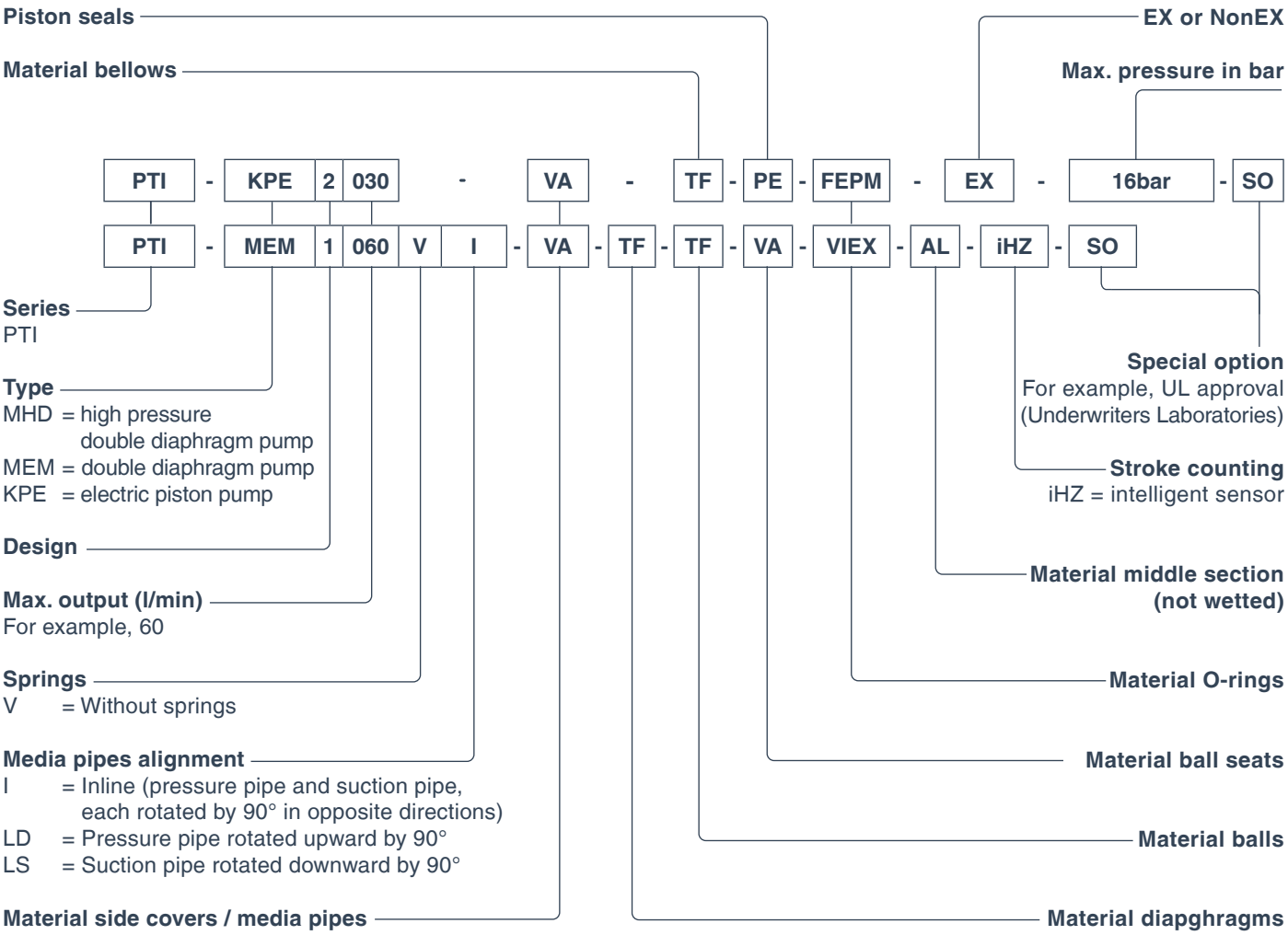
TYPE KEY



Material specifications type key			
	Material: Side covers/media pipes/middle secion/balls/ball seats		Temperature limit range[2]
Side covers Media pipes Middle section Balls Ball seats	PV	Polyvinylidene fluoride (PVDF)	+5 °C to +40 °C
	PP1	Polypropylene, conductive	
	PP5	Polypropylene	
	PE1	Polyethylene (PE), black, conductive	+5 °C to +70 °C
	PE5	Polyethylene (PE), white	
	TFE	Polytetrafluorethylene (PTFE), black, conductive	+5 °C to +120 °C
	TF	Polytetrafluorethylene (PTFE), white	
	VA	Stainless steel	
	AL	Aluminium	
	EP	Ethylene-propylene-dien rubbers (EPDM)	
Media valve seals O-rings	FKM	Fluoro rubber	+5 °C to +120 °C
	FEP	Fluoroethylene propylene	
	EPDM	Ethylene-propylene-dien rubbers (EPDM)	
	FEPM/VIEX	Propylene rubber	
	NBR	Acrylonitrile butadiene rubber (NBR)	+5 °C to +70 °C
Diaphragms	TF	Polytetrafluorethylene (PTFE) composite[1]	+5 °C to +70 °C
	TA	Polytetrafluorethylene (PTFE) composite, conductive[1]	
	EP	Ethylene-propylene-dien rubbers (EPDM), conductive	
	TH	Polytetrafluorethylene (PTFE) composite[1]	+5 °C to +120 °C
	TB	Polytetrafluorethylene (PTFE) composite, conductive[1]	
	EPH	Ethylene-propylene-dien rubbers (EPDM), conductive	

[1]Composite diaphragm: PTFE media side, NBR or EPDM compressed air side
[2] Operation below the limit temperature range can lead to increased wear (cold embrittlement, etc.). This can lead to premature failure of components and thus of the pump. Operation above the limit temperature range is not permitted.

Double diaphragm pump PTI-MEM1060

1/2"
max. 60 l/min

Stainless steel (VA)

Aluminium (AL)

Polypropylene (PP)

The tim®PRO series pumps have been successfully used for many years as process and transfer pumps in the printing machine industry and in the paint supply sector.
They are characterised in particular by their extremely low compressed air consumption, low pulsation, their good rinsing capability, process reliability, long service life, ease of maintenance, good workmanship and by their small and compact design.
These variants are delivered with an intelligent sensor, which allows real-time monitoring of the stroke signals via customer's PLC.
With connection of our tim®LINK module we enable many useful new features that increase profitability, process reliability and facilitate preventive maintenance. Simply integrate our tim®LINK module in your system and benefit from these advantages.
All information in this regard is provided starting on page 38.

Added values

Reduced compressed air costs

Optimised geometries with minimal dead spaces, as well as the extremely low start-up pressures, starting at 0.7 bar, reduce energy consumption to a minimum.

Minimum pulsation

Minimal changeover times in conjunction with the short-stroke principle of the pumps reduce pulsation to a minimum and ensure a more uniform media flow.

Process monitoring

The built-in intelligent stroke sensor offers a wide range of options for increasing process reliability. In addition to the precise determination of maintenance intervals, real-time data output allows conclusions to be drawn about the current status of the process.

Minimal operating & maintenance costs

The low-wear ceramic slide valve and the maintenance-friendly design of the pump ensure extremely low service costs.
In addition, the short-stroke principle prevents the diaphragms from overstretching and thus enables a significantly longer service life.

Start-up safety

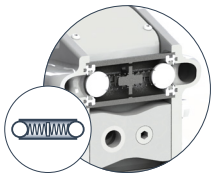
Safe start-up of the pump is ensured, even in critical operating situations. The bistable, latching valve prevents problematic intermediate positions of the control valve.

Compact design

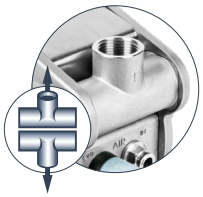
The optimised valve technology allows a particularly compact design.
This means that new systems can be planned with significantly less installation space and existing systems can be retrofitted without any problems.

Versions / Technical data

Integrated intelligent sensor (iHZ)



Spring-loaded valve balls



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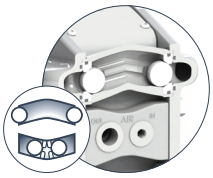

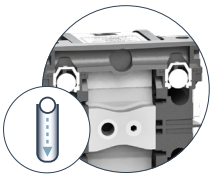

Gravity-loaded valve balls

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PTI-MEM1060	VA TF-VA-VA-VIEX-AL-iHZ	I-VA TF-VA-VA-VIEX-AL-iHZ	V-VA TF-TF-VA-VIEX-AL-iHZ	VI-VA TF-TF-VA-VIEX-AL-iHZ	AL TF-POM-VA-EPDM-AL-iHZ	I-AL TF-POM-VA-EPDM-AL-iHZ	PP5 EP-TF-PV-FKM-AL-iHZ	PP1 EP-TF-PV-FKM-AL-iHZ
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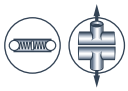
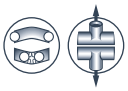
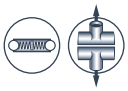
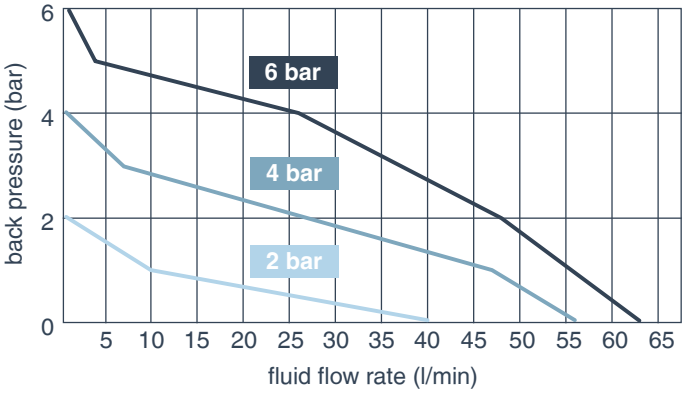
Version								
Alignment of suction pipe	forward	downward	forward	downward	forward	downward	forward	forward
Alignment of pressure pipe	forward	upward	forward	upward	forward	upward	forward	forward
Material design	stainless steel				aluminium		PP	PP (conductive)
Atex*	✓	✓	✓	✓	✓	✓		✓
Integrated intelligent sensor (iHZ)	✓	✓	✓	✓	✓	✓	✓	✓
Dimensions (L/W/H) in mm	238,3/130/173,6				238,3/162,5/173,6		232,4/167/173,8	
Transmission ratio	1/1							
Flow rate (max.)	approx. 60 l/min (for water)							approx. 50 l/min (for water)
Drive	pneumatic							
Fluid connections	3/4“ internal thread, 90° rotatable						3/4“ internal thread	
Operation pressure	1 - 8 bar compressed air, filtered, unoiled or oiled						1 - 7 bar	1 - 4 bar
Compressed air connection	plug, external hose Ø 8 mm							
Suction height, dry	max. 4 m							
Weight	approx. 6,2 kg				approx. 4,5 kg		approx. 4,0 kg	
Viscosity of pumped medium	up to 15.000 mPas							
Medium temperature	max. +65 °C						max. 5 °C to 40 °C	
Noise level	68 dB (A)						64 db(A) 20 DS/min 0,1 MPa	
Double strokes/s	max. 8						max. 7	max. 6
Material								
Side covers	stainless steel				aluminium		PP	PP (conductive)
Middle housing section	aluminium							
Seals fluid side	FEPM				EPDM		FKM	
Pneumatic seals	NBR							
Media pipes	stainless steel				aluminium		PP	PP (conductive)
Valve ball seats	stainless steel						PVDF	
Valve balls	stainless steel		PTFE		POM		PTFE	
Springs	stainless steel		none		stainless steel		none	
Diaphragms	PTFE / NBR as composite material						EPDM	
Control valve	ceramic flat slide valve							
Cover plate	stainless steel							
Screws	stainless steel							

*Permissible explosion ranges and operating conditions can be found in the operating instructions.

ADDITIONAL VERSIONS ON REQUEST



Media

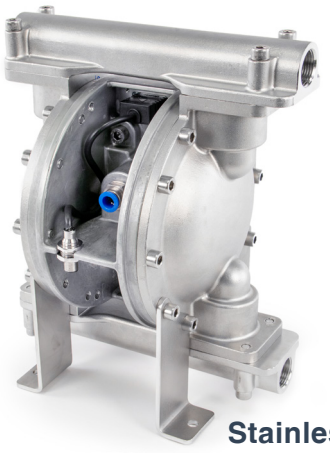
The pump is suitable for pumping a wide variety of fluids (media). Resistance to the media that will be pumped must be checked on a case-by-case basis.

We would be happy to advise you on the suitability for your specific application.

www.timmer.de/en/timpro

Double diaphragm pump PTI-MEM1090

3/4"
max. 90 l/min



Stainless steel (VA)

Aluminium (AL)

The tim®PRO series pumps have been successfully used for many years as process and transfer pumps in the printing machine industry and in the paint supply sector.
They are characterised in particular by their extremely low compressed air consumption, low pulsation, their good rinsing capability, process reliability, long service life, ease of maintenance, good workmanship and by their small and compact design.
These variants are delivered with an intelligent sensor, which allows real-time monitoring of the stroke signals via customer's PLC.
With connection of our tim®LINK module we enable many useful new features that increase profitability, process reliability and facilitate preventive maintenance. Simply integrate our tim®LINK module in your system and benefit from these advantages.
All information in this regard is provided starting on page 38.

Added values

Reduced compressed air costs

Optimised geometries with minimal dead spaces, as well as the extremely low start-up pressures, starting at 0.7 bar, reduce energy consumption to a minimum.

Minimum pulsation

Minimal changeover times in conjunction with the short-stroke principle of the pumps reduce pulsation to a minimum and ensure a more uniform media flow.

Process monitoring

The built-in intelligent stroke sensor offers a wide range of options for increasing process reliability. In addition to the precise determination of maintenance intervals, real-time data output allows conclusions to be drawn about the current status of the process.

Minimal operating & maintenance costs

The low-wear ceramic slide valve and the maintenance-friendly design of the pump ensure extremely low service costs.
In addition, the short-stroke principle prevents the diaphragms from overstretching and thus enables a significantly longer service life.

Start-up safety

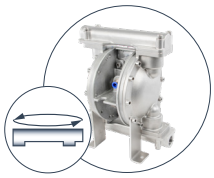
Safe start-up of the pump is ensured, even in critical operating situations. The bistable, latching valve prevents problematic intermediate positions of the control valve.

Variable modular system

A wide range of materials for the individual components and optional expansion options enable use in various applications.

Versions / Technical data

Integrated intelligent sensor (iHZ)



180° rotatable media pipes

Gravity-loaded valve balls

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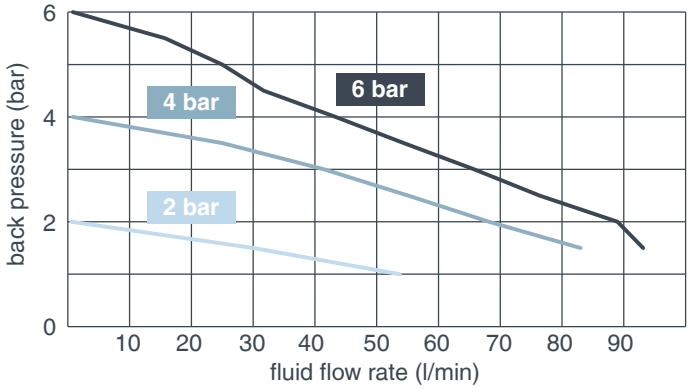
PTI-MEM1090	V-VA TF-TF-VA-FEP-AL-iHZ	V-AL TF-POM-AL-EPDM-AL-iHZ
Order no.	53505508	53505506
Version		
Media pipes	180° rotatable	
Material design	stainless steel	aluminium
Atex*	✓	✓
Integrated intelligent sensor (iHZ)	✓	✓
Dimensions (L/W/H) in mm	240/196+59(silencer)/306	
Transmission ratio	1/1	
Flow rate (max.)	approx. 90 l/min (for water) with PTFE composite diaphragm	
Drive	pneumatic	
Fluid connections	3/4“ internal thread, 180° rotatable	
Operation pressure	1 - 7 bar compressed air, filtered, unoiled or oiled	
Compressed air connection	plug, external hose Ø 10 mm	
Suction height, dry	max. 3,5 m	
Weight	approx. 14 kg	approx. 9,2 kg
Viscosity of pumped medium	up to 10.000 mPas	
Medium temperature	max. +65 °C	
Noise level	<72 dB (A)	
Double strokes/s	max. 6	
	Material	
Side covers	stainless steel	aluminium
Middle housing section	aluminium	
Seals fluid side	FEP	EPDM
Pneumatic seals	NBR	
Media pipes	stainless steel	aluminium
Valve ball seats	stainless steel	PTFE
Valve balls	PTFE	POM
Diaphragms	PTFE / EPDM as composite material	
Control valve	ceramic flat slide valve	
Screws	stainless steel	

*Permissible explosion ranges and operating conditions can be found in the operating instructions.

ADDITIONAL VERSIONS ON REQUEST



Media

The pump is suitable for pumping a wide variety of fluids (media). Resistance to the media that will be pumped must be checked on a case-by-case basis.

We would be happy to advise you on the suitability for your specific application.

www.timmer.de/en/timpro

Double diaphragm pump PTI-MEM1150

1 "

max. 150 l/min

Stainless steel (VA)

Aluminium (AL)

The tim®PRO series pumps have been successfully used for many years as process and transfer pumps in the printing machine industry and in the paint supply sector.
They are characterised in particular by their extremely low compressed air consumption, low pulsation, their good rinsing capability, process reliability, long service life, ease of maintenance, good workmanship and by their small and compact design.
These variants are delivered with an intelligent sensor, which allows real-time monitoring of the stroke signals via customer's PLC.
With connection of our tim®LINK module we enable many useful new features that increase profitability, process reliability and facilitate preventive maintenance. Simply integrate our tim®LINK module in your system and benefit from these advantages.
All information in this regard is provided starting on page 38.

Added values

Reduced compressed air costs

Optimised geometries with minimal dead spaces, as well as the extremely low start-up pressures, starting at 0.7 bar, reduce energy consumption to a minimum.

Minimum pulsation

Minimal changeover times in conjunction with the short-stroke principle of the pumps reduce pulsation to a minimum and ensure a more uniform media flow.

Process monitoring

The built-in intelligent stroke sensor offers a wide range of options for increasing process reliability. In addition to the precise determination of maintenance intervals, real-time data output allows conclusions to be drawn about the current status of the process.

Minimal operating & maintenance costs

The low-wear ceramic slide valve and the maintenance-friendly design of the pump ensure extremely low service costs.
In addition, the short-stroke principle prevents the diaphragms from overstretching and thus enables a significantly longer service life.

Start-up safety

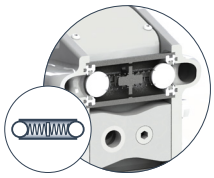
Safe start-up of the pump is ensured, even in critical operating situations. The bistable, latching valve prevents problematic intermediate positions of the control valve.

Compact design

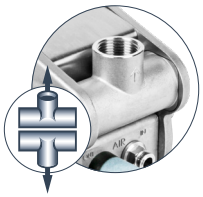
The optimized valve technology allows a particularly compact design.
This means that new systems can be planned with significantly less installation space and existing systems can be retrofitted without any problems.

Versions / Technical data

Integrated intelligent sensor (iHZ)



Spring-loaded valve balls



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PTI-MEM1150	VA TF-VA-VA-VIEX-AL-iHZ	I-VA TF-VA-VA-VIEX-AL-iHZ	AL TF-POM-VA-EP-AL-iHZ	I-AL TF-POM-VA-EP-AL-iHZ
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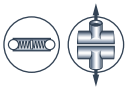
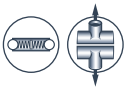
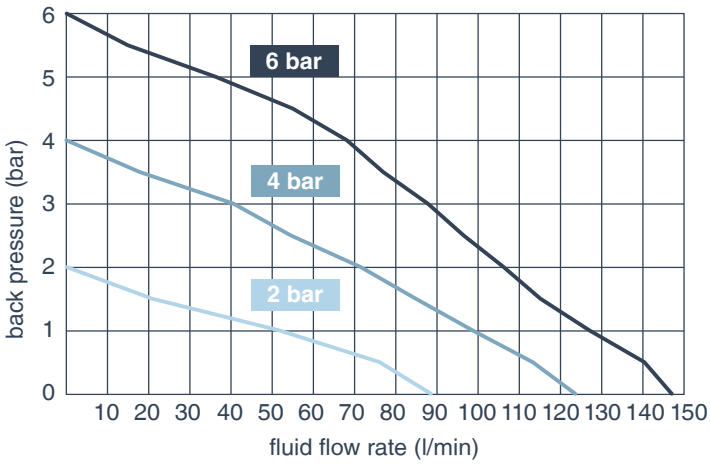
Version				
Alignment of suction pipe	forward	downward	forward	downward
Alignment of pressure pipe	forward	upward	forward	upward
Material design	stainless steel		aluminium	
Atex*	✓	✓	✓	✓
Integrated intelligent sensor (iHZ)	✓	✓	✓	✓
Dimensions (L/W/H) in mm	303,1/173,5/237,5	303,1/173,5/240	303,1/226,8/237,5	303,1/226,8/240
Transmission ratio	1/1			
Flow rate (max.)	approx. 150 l/min (for water) with PTFE composite diaphragm			
Drive	pneumatic			
Fluid connections	G 1¼“ internal thread, 90° rotatable			
Operation pressure	1 - 8 bar compressed air, filtered, unoiled or oiled			
Compressed air connection	G 1/2“			
Suction height, dry	max. 4 m			
Weight	approx. 15 kg		approx. 9 kg	
Viscosity of pumped medium	up to 15.000 mPas			
Medium temperature	max. +65 °C			
Noise level	68 dB (A)			
Double strokes/s	max. 7			
	Material			
Side covers	stainless steel		aluminium	
Middle housing section	aluminium			
Seals fluid side	FEPM		EPDM	
Pneumatic seals	NBR			
Media pipes	stainless steel			
Valve ball seats	stainless steel			
Valve balls	stainless steel		POM	
Springs	stainless steel			
Diaphragms	PTFE / NBR as composite material			
Control valve	ceramic flat slide valve			
Cover plate	stainless steel			
Screws	stainless steel			

*Permissible explosion ranges and operating conditions can be found in the operating instructions.



Media

The pump is suitable for pumping a wide variety of fluids (media). Resistance to the media that will be pumped must be checked on a case-by-case basis.

We would be happy to advise you on the suitability for your specific application.

ADDITIONAL VERSIONS ON REQUEST

www.timmer.de/en/timpro

Double diaphragm pump PTI-MEM5600

2"

max. 600 l/min

Complete emptying

Stainless steel (VA)

Complete emptying

Aluminium (AL)

This pump is highly regarded in the chemical industry and paint industry for its high process reliability and easy-maintenance operation. They are characterised in particular by their extremely low compressed air consumption, good rinsing capability, process reliability, long service life, ease of maintenance and good workmanship.
Via manually activated eccentric tappets the valve balls can be lifted out of the seats. This enables virtually complete return of the residual medium quantity via the pump's suction pipe (for pump types with complete emptying). In other words, this function provides major cost savings and conserves resources.
These variants are delivered with an intelligent sensor, which can enable real-time monitoring of the stroke signals, including data that is relevant for the process (total number of all strokes, average frequency, frequency histogram) via customer's PLC.
With connection of our tim®LINK module we enable many useful new features that increase profitability, process reliability and facilitate preventive maintenance.
Simply integrate our tim®LINK module into your system and benefit from these advantages.
All information in this regard is provided starting on page 38.

Added values

Easy installation

Easy replacement of the valve balls without dismounting the side cover or the unperforated diaphragms. Special tools are not required for mounting / dismounting. Only 4 sealing rings are installed on the media side.

Reduced compressed air costs

Optimised geometries with minimal dead spaces, as well as the extremely low start-up pressures, starting at 0.7 bar, reduce energy consumption to a minimum.

Maximisation of service life

The ceramic slide valve that is used works nearly wear-free. The durable diaphragms enable maximisation of service life.

Minimal maintenance costs

The durable diaphragms, the low-wear ceramic slide valve and the easy-maintenance structure of the pump ensure extremely low service costs.

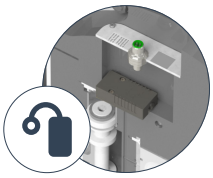
Increased process reliability

Safe start-up of the pump is ensured, even in critical operating situations. The bistable, latching valve prevents problematic intermediate positions of the control valve.

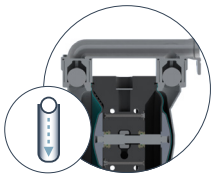
Minimum pulsation

Minimal changeover times in conjunction with the short-stroke principle of the pumps reduce pulsation to a minimum and ensure a more uniform media flow.

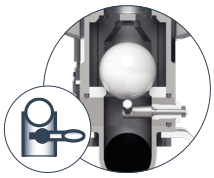
Versions / Technical data



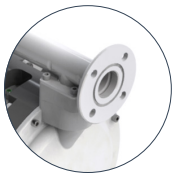
Integrated intelligent sensor (iHZ)



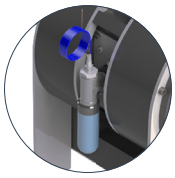
Gravity-loaded valve balls



Gravity-loaded, manually piloted valve balls



DN50/PN10, 2" BSP combined connection

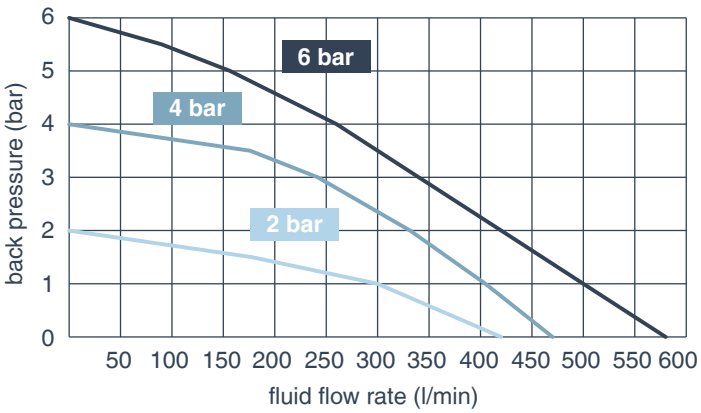


Diaphragm rupture monitoring (optionally available)

tim® TRON Ready for Future

PTI-MEM5600	V-VA TF-TF-TF-FEP-PE1-iHZ-FL	V-VA TF-TF-TF-FEP-PE1-iHZ-FL-RE	V-AL TF-TF-TF-FEP-PE1-iHZ	V-AL EP-EP-TF-EPDM-PE1-iHZ	V-AL EP-EP-TF-EPDM-PE1-iHZ-RE
Order no.	53503550	53503569	53503600	53503601	53503606
Version					
Media pipes	180° rotatable flange / thread 2"		180° rotatable, thread 2" (with optional lateral outlet)		
Material design	stainless steel		aluminium		
Atex*	✓	✓	✓	✓	✓
Integrated intelligent sensor (iHZ)	✓	✓	✓	✓	✓
Dimensions (L/W/H) in mm	442,9/444,8/759,5	442,9/444,8/789,5	412/449/711		
Transmission ratio	1/1				
Flow rate (max.)	approx. 600 l/min (for water)				
Drive	pneumatic				
Fluid connections	DIN-flange DN50/PN10, 2" BSP		2" BSP		
Operation pressure	1 - 7 bar compressed air, filtered, unoiled or oiled				
Compressed air connection	G 3/4" internal thread				
Suction height, dry	approx. 6 meters self-priming				
Weight	approx. 70 kg	approx. 76 kg	approx. 48 kg		
Viscosity of pumped medium	up to 10.000 mPas				
Medium temperature	+5 to +120 °C (depending on the version and application)				
Double strokes/s	max. 2				
	Material				
Housing	stainless steel		aluminium		
Middle housing section	PE electrically conductive, FDA-compliant				
Seals fluid side	FEP			EPDM	
Pneumatic seals	NBR / PUR				
Media pipes	stainless steel		aluminium		
Valve ball seats	PTFE				
Valve balls	PTFE			EPDM	
Diaphragms	PTFE/EPDM as composite material			EPDM	
Control valve	ceramic flat slide valve				
Screws	stainless steel				

*Permissible explosion ranges and operating conditions can be found in the operating instructions.



Media

The pump is suitable for pumping a wide variety of fluids (media). Resistance to the media that will be pumped must be checked on a case-by-case basis.

We would be happy to advise you on the suitability for your specific application.

ADDITIONAL VERSIONS ON REQUEST

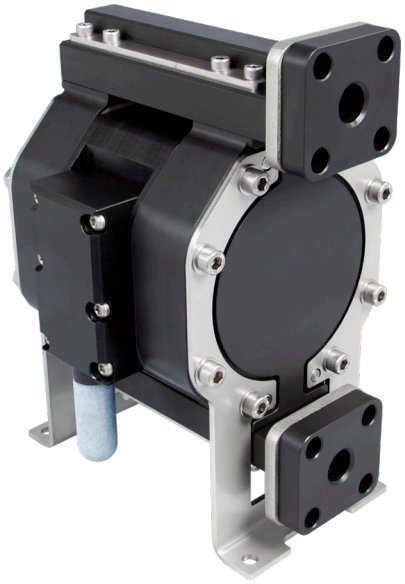
www.timmer.de/en/timpro

Double diaphragm pump PTI-MEM5060

1/2"

max. 60 l/min

Polyethylene (PE)
Polytetrafluorethylene (PTFE)



The pumps of the tim®CHEM series have been highly regarded for many years in the chemical industry for their process reliability and easy-maintenance operation.
In addition to these advantages, the tim®CHEM pump is particularly characterised by its high chemical resistance, as well as good rinsing capability and thus it is ideally suited for use in the chemical industry.
Optionally these variants can be delivered with an intelligent sensor, which allows real-time monitoring of the stroke signals by means of a customer PLC.
With connection of our tim®LINK module we enable many useful new features that increase profitability, process reliability and facilitate preventive maintenance.
Simply integrate our tim®LINK module into your system and benefit from these advantages.
All information in this regard is provided starting on page 38.

Added values

Easy installation

Easy replacement of the valve balls without dismounting the side cover or the unperforated diaphragms. Special tools are not required for mounting / dismounting. Only 4 sealing rings are installed on the media side.

Start-up safety

Safe start-up of the pump is ensured, even in critical operating situations. The bistable, latching valve prevents problematic intermediate positions of the control valve.

Reduced compressed air costs

Optimised geometries with minimal dead spaces, as well as the extremely low start-up pressures, starting at 0.7 bar, reduce energy consumption to a minimum.

Minimal operating & maintenance costs

The low-wear ceramic slide valve and the maintenance-friendly design of the pump ensure extremely low service costs. In addition, the short-stroke principle prevents the diaphragms from overstretching and thus enables a significantly longer service life.

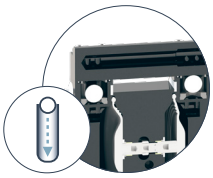
Variable modular system

A wide range of materials for the individual components and optional expansion options enable use in various applications.

Minimum pulsation

Minimal changeover times in conjunction with the short-stroke principle of the pumps reduce pulsation to a minimum and ensure a more uniform media flow.

Versions / Technical data

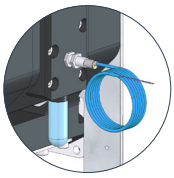


Gravity-loaded valve balls

G 3/4" thread version

optionally:

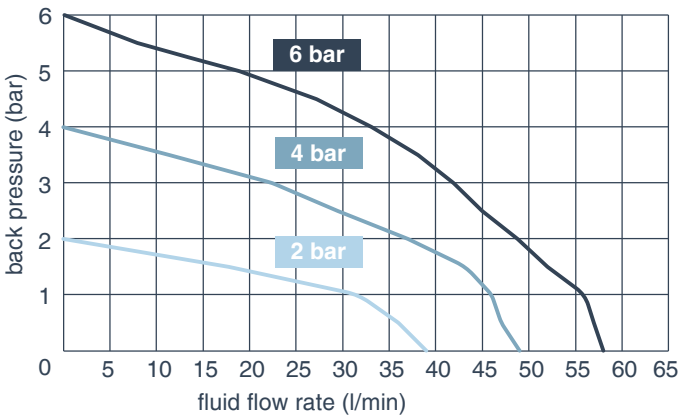
Integrated intelligent sensor (iHZ)



Diaphragm rupture monitoring

PTI-MEM5060	V-TFE TH-TF-TFE-FEP-PE1-FL	V-PE1 TF-TF-PE1-FEP-PE1-FL	V-PE1 TF-TF-PE1-FEP-PE1
Order no.	53501612	53501600	53501589
Version			
Media pipes	180° rotatable, flange	180° rotatable, flange	180° rotatable, thread 3/4“
Material design	PTFE	PE	
Atex*	✓	✓	✓
Integrated intelligent sensor (iHZ)	available on request		
Dimensions (L/W/H) in mm	221/175,8/293		221/175,8/279,5
Transmission ratio	1/1		
Flow rate (max.)	approx. 60 l/min (for water) with PTFE composite diaphragm		
Drive	pneumatic		
Fluid connections	DIN-flange DN15 / G 3/4“ Internal thread		
Operation pressure	1 - 7 bar compressed air, filtered, unoiled or oiled		
Compressed air connection	G 3/8“ internal thread		
Suction height, dry	max. 4 m		
Weight	approx. 6,8 kg	approx. 5,2 kg	
Viscosity of pumped medium	up to 10.000 mPas		
Medium temperature	+5 °C to +120 °C (depending on the version and application)	+5 °C to +70 °C (depending on the version and application)	
Double strokes/s	max. 7		
	Material		
Housing	PTFE electrically conductive, FDA-compliant	PE electrically conductive, FDA-compliant	
Middle housing section	PE electrically conductive, FDA-compliant		
Seals fluid side	FEP		
Valve ball seats	PTFE electrically conductive, FDA-compliant	PE electrically conductive, FDA-compliant	
Valve balls	PTFE		
Diaphragms	PTFE/EPDM as composite material	PTFE/NBR as composite material	
Control valve	ceramic flat slide valve		
Housing screw connection	stainless steel		

*Permissible explosion ranges and operating conditions can be found in the operating instructions.



Media

The pump is suitable for pumping a wide variety of fluids (media). Resistance to the media that will be pumped must be checked on a case-by-case basis.

We would be happy to advise you on the suitability for your specific application.

ADDITIONAL VERSIONS ON REQUEST

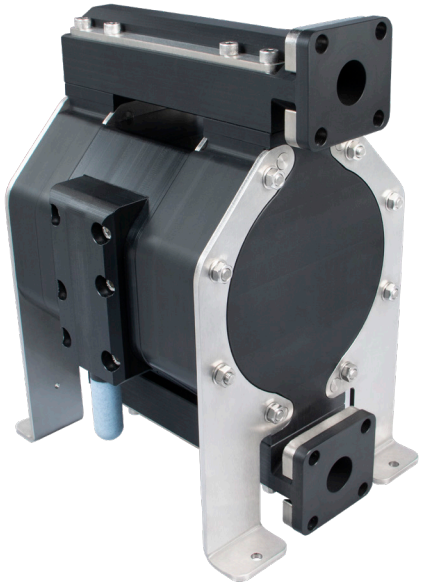
www.timmer.de/en/timchem

Double diaphragm pump PTI-MEM5150

1 "

max. 150 l/min

Polyethylene (PE)
Polytetrafluorethylene (PTFE)



The pumps of the tim®CHEM series have been highly regarded for many years in the chemical industry for their process reliability and easy-maintenance operation.
In addition to these advantages, the tim®CHEM pump is particularly characterised by its high chemical resistance, as well as good rinsing capability and thus it is ideally suited for use in the chemical industry.
Optionally these variants can be delivered with an intelligent sensor, which allows real-time monitoring of the stroke signals by means of a customer PLC.
With connection of our tim®LINK module we enable many useful new features that increase profitability, process reliability and facilitate preventive maintenance.
Simply integrate our tim®LINK module into your system and benefit from these advantages.
All information in this regard is provided starting on page 38.

Added values

Easy installation

Easy replacement of the valve balls without dismounting the side cover or the unperforated diaphragms. Special tools are not required for mounting / dismounting. Only 4 sealing rings are installed on the media side.

Start-up safety

Safe start-up of the pump is ensured, even in critical operating situations. The bistable, latching valve prevents problematic intermediate positions of the control valve.

Reduced compressed air costs

Optimised geometries with minimal dead spaces, as well as the extremely low start-up pressures, starting at 0.7 bar, reduce energy consumption to a minimum.

Minimal operating & maintenance costs

The low-wear ceramic slide valve and the maintenance-friendly design of the pump ensure extremely low service costs. In addition, the short-stroke principle prevents the diaphragms from overstretching and thus enables a significantly longer service life.

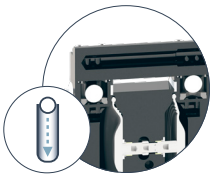
Variable modular system

A wide range of materials for the individual components and optional expansion options enable use in various applications.

Minimum pulsation

Minimal changeover times in conjunction with the short-stroke principle of the pumps reduce pulsation to a minimum and ensure a more uniform media flow.

Versions / Technical data

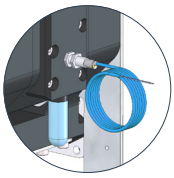


Gravity-loaded valve balls

G 1" thread version

optionally:

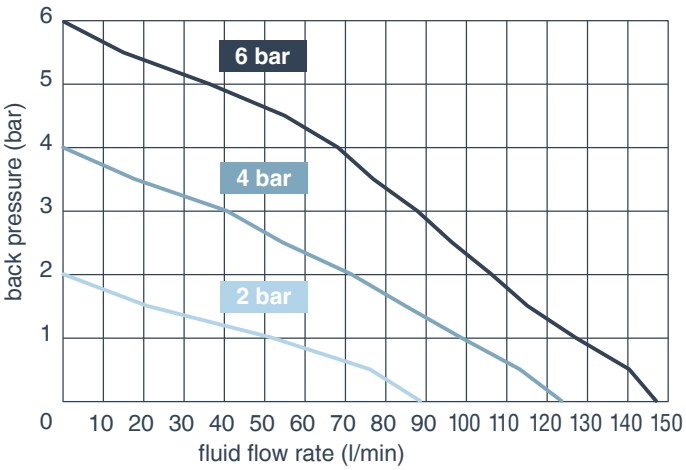
Integrated intelligent sensor (iHZ)



Diaphragm rupture monitoring

PTI-MEM5150	V-TFE TH-TF-TFE-FEP-PE1-FL	V-PE1 TF-TF-PE1-FEP-PE1-FL	V-PE1 TF-TF-PE1-FEP-PE1
Order no.	53502506	53502507	53502508
Version			
Media pipes	180° rotatable, flange	180° rotatable, flange	180° rotatable, thread 1“
Material design	PTFE	PE	
Atex*	✓	✓	✓
Integrated intelligent sensor (iHZ)	available on request		
Dimensions (L/W/H) in mm	296/235,2/406,5		296/235,2/393,5
Transmission ratio	1/1		
Flow rate (max.)	approx. 150 l/min (for water) with PTFE composite diaphragm		
Drive	pneumatic		
Fluid connections	DIN-flange DN25 / G 1“ Internal thread		
Operation pressure	1 - 7 bar compressed air, filtered, unoiled or oiled		
Compressed air connection	G 1/2“ internal thread		
Suction height, dry	max. 3 m		
Weight	approx. 23 kg	approx. 15,2 kg	
Viscosity of pumped medium	up to 10.000 mPas		
Medium temperature	+5 °C to +120 °C (depending on the version and application)	+5 °C to +70 °C (depending on the version and application)	
Double strokes/s	max. 7		
	Material		
Housing	PTFE electrically conductive, FDA-compliant	PE electrically conductive, FDA-compliant	
Middle housing section	PE electrically conductive, FDA-compliant		
Seals fluid side	FEP, FKM, EPDM		
Valve ball seats	PTFE electrically conductive, FDA-compliant	PE electrically conductive, FDA-compliant	
Valve balls	PTFE		
Diaphragms	PTFE/EPDM as composite material	PTFE/NBR as composite material	
Control valve	ceramic flat slide valve		
Housing screw connection	stainless steel		

*Permissible explosion ranges and operating conditions can be found in the operating instructions.



Media

The pump is suitable for pumping a wide variety of fluids (media). Resistance to the media that will be pumped must be checked on a case-by-case basis.

We would be happy to advise you on the suitability for your specific application.

ADDITIONAL VERSIONS ON REQUEST

www.timmer.de/en/timchem

Double diaphragm pump PTI-MEM5300

1½"

max. 300 l/min

Polyethylene (PE)
Polytetrafluorethylene (PTFE)

The pumps of the tim®CHEM series have been highly regarded for many years in the chemical industry for their process reliability and easy-maintenance operation.
In addition to these advantages, the tim®CHEM pump is particularly characterised by its high chemical resistance, as well as good rinsing capability and thus it is ideally suited for use in the chemical industry.
These variants are delivered with an intelligent sensor, which allows real-time monitoring of the stroke signals by means of a customer PLC.
With connection of our tim®LINK module we enable many useful new features that increase profitability, process reliability and facilitate preventive maintenance.
Simply integrate our tim®LINK module into your system and benefit from these advantages.
All information in this regard is provided starting on page 38.

Added values

Easy installation

Easy replacement of the valve balls without dismounting the side cover or the unperforated diaphragms. Special tools are not required for mounting / dismounting. Only 4 sealing rings are installed on the media side.

Start-up safety

Safe start-up of the pump is ensured, even in critical operating situations. The bistable, latching valve prevents problematic intermediate positions of the control valve.

Reduced compressed air costs

Optimised geometries with minimal dead spaces, as well as the extremely low start-up pressures, starting at 0.7 bar, reduce energy consumption to a minimum.

Minimal maintenance costs

The durable diaphragms, the low-wear ceramic slide valve and the easy-maintenance structure of the pump ensure extremely low service costs.

Variable modular system

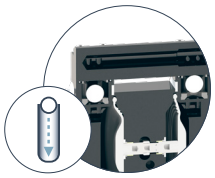
A wide range of materials for the individual components and optional expansion options enable use in various applications.

Minimum pulsation

Minimal changeover times in conjunction with the short-stroke principle of the pumps reduce pulsation to a minimum and ensure a more uniform media flow.

Versions / Technical data

Integrated intelligent sensor (iHZ)



Gravity-loaded valve balls

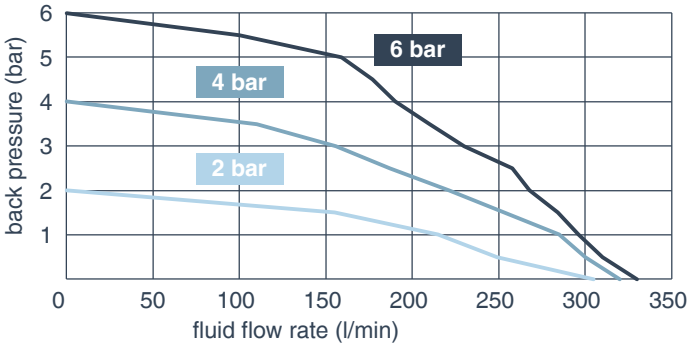
optionally:

Diaphragm rupture monitoring

tim® TRON
Ready for Future

PTI-MEM5300	V-TFE TH-TF-TFE-FEP-PE1-iHZ-FL	V-PE1 TF-TF-PE1-FEP-PE1-iHZ-FL
Order no.	53503102	53503106
Version		
Media pipes	180° rotatable, flange / thread 1 ½“	180° rotatable, flange / thread 1 ½“
Material design	PTFE	PE
Atex*	✓	✓
Integrated intelligent sensor (iHZ)	✓	✓
Dimensions (L/W/H) in mm	452/365/631	
Transmission ratio	1/1	
Flow rate (max.)	approx. 300 l/min (for water) with PTFE composite diaphragm	
Drive	pneumatic	
Fluid connections	DIN-flange DN40 / PN10, 1 ½“ BSP	
Operation pressure	1 - 7 bar compressed air, filtered, unoiled or oiled	
Compressed air connection	G 1/2“ internal thread	
Suction height, dry	max. 5 m	
Weight	approx. 74 kg	approx. 52,5 kg
Viscosity of pumped medium	up to 10.000 mPas	
Medium temperature	+5 °C to +120 °C (depending on the version and application)	+5 °C to +70 °C (depending on the version and application)
Double strokes/s	max. 2	
	Material	
Housing	PTFE electrically conductive, FDA-compliant	PE electrically conductive, FDA-compliant
Middle housing section	PE electrically conductive, FDA-compliant	
Seals fluid side	FEP	
Media pipes	stainless steel	
Valve ball seats	PTFE electrically conductive, FDA-compliant	PE electrically conductive, FDA-compliant
Valve balls	PTFE	
Diaphragms	PTFE/EPDM as composite material	PTFE/EPDM as composite material
Control valve	ceramic flat slide valve	
Housing screw connection	stainless steel	

*Permissible explosion ranges and operating conditions can be found in the operating instructions.



Media

The pump is suitable for pumping a wide variety of fluids (media). Resistance to the media that will be pumped must be checked on a case-by-case basis.

We would be happy to advise you on the suitability for your specific application.

ADDITIONAL VERSIONS ON REQUEST

www.timmer.de/en/timchem

tim CHEM®

Double diaphragm pump PTI-MEM5600

2"

max. 600 l/min

Polyethylene (PE)
Polytetrafluorethylene (PTFE)

The pumps of the tim®CHEM series have been highly regarded for many years in the chemical industry for their process reliability and easy-maintenance operation.
In addition to these advantages, the tim®CHEM pump is particularly characterised by its high chemical resistance, as well as good rinsing capability and thus it is ideally suited for use in the chemical industry.
These variants are delivered with an intelligent sensor, which allows real-time monitoring of the stroke signals by means of a customer PLC.
With connection of our tim®LINK module we enable many useful new features that increase profitability, process reliability and facilitate preventive maintenance.
Simply integrate our tim®LINK module into your system and benefit from these advantages.
All information in this regard is provided starting on page 38.

Added values

Easy installation

Easy replacement of the valve balls without dismounting the side cover or the unperforated diaphragms. Special tools are not required for mounting / dismounting. Only 4 sealing rings are installed on the media side.

Start-up safety

Safe start-up of the pump is ensured, even in critical operating situations. The bistable, latching valve prevents problematic intermediate positions of the control valve.

Reduced compressed air costs

Optimised geometries with minimal dead spaces, as well as the extremely low start-up pressures, starting at 0.7 bar, reduce energy consumption to a minimum.

Minimal maintenance costs

The durable diaphragms, the low-wear ceramic slide valve and the easy-maintenance structure of the pump ensure extremely low service costs.

Variable modular system

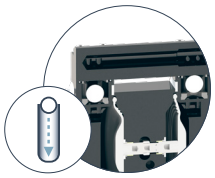
A wide range of materials for the individual components and optional expansion options enable use in various applications.

Minimum pulsation

Minimal changeover times in conjunction with the short-stroke principle of the pumps reduce pulsation to a minimum and ensure a more uniform media flow.

Versions / Technical data

Integrated intelligent sensor (iHZ)



Gravity-loaded valve balls

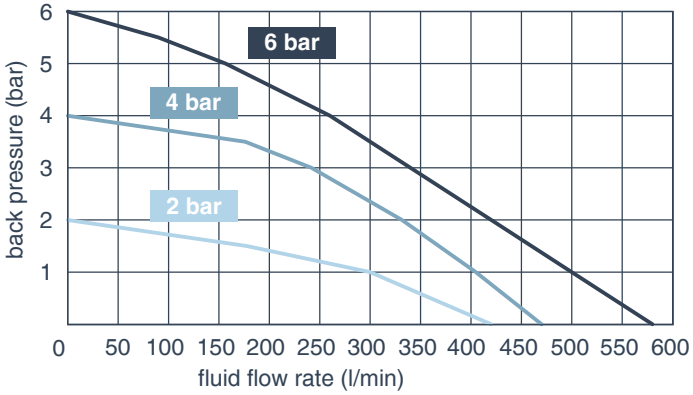
optionally:

Diaphragm rupture monitoring

tim® TRON
Ready for Future

PTI-MEM5600	V-TFE TH-TF-TFE-FEP-PE1-iHZ-FL	V-PE1 TF-TF-PE1-FEP-PE1-iHZ-FL
Order no.	53503523	53503500
Version		
Media pipes	180° rotatable, flange / thread 2“	180° rotatable, flange / thread 2“
Material design	PTFE	PE
Atex*	✓	✓
Integrated intelligent sensor (iHZ)	✓	✓
Dimensions (L/W/H) in mm	473,2/411,4/757,2	
Transmission ratio	1/1	
Flow rate (max.)	approx. 600 l/min (for water) with PTFE composite diaphragm	
Drive	pneumatic	
Fluid connections	DIN-flange DN50 / PN10, 2“ BSP	
Operation pressure	1 - 7 bar compressed air, filtered, unoiled or oiled	
Compressed air connection	G 3/4“ internal thread	
Suction height, dry	max. 6 m	
Weight	approx. 105 kg	approx. 73 kg
Viscosity of pumped medium	up to 10.000 mPas	
Medium temperature	+5 °C to +120 °C (depending on the version and application)	+5 °C to +70 °C (depending on the version and application)
Double strokes/s	max. 2	
	Material	
Housing	PTFE electrically conductive, FDA-compliant	PE electrically conductive, FDA-compliant
Middle housing section	PE electrically conductive, FDA-compliant	
Seals fluid side	FEP	
Valve ball seats	PTFE electrically conductive, FDA-compliant	PE electrically conductive, FDA-compliant
Valve balls	PTFE	
Diaphragms	PTFE/EPDM as composite material	PTFE/EPDM as composite material
Control valve	ceramic flat slide valve	
Housing screw connection	stainless steel	

*Permissible explosion ranges and operating conditions can be found in the operating instructions.



Media

The pump is suitable for pumping a wide variety of fluids (media). Resistance to the media that will be pumped must be checked on a case-by-case basis.

We would be happy to advise you on the suitability for your specific application.

ADDITIONAL VERSIONS ON REQUEST

www.timmer.de/en/timchem

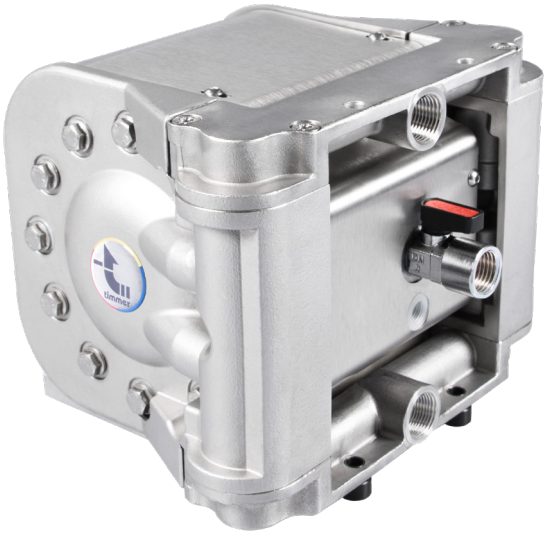
tim BOOST®

High-pressure double diaphragm pump PTI-MHD1030

3/8"

max. 30 l/min

Stainless steel (VA)



The pneumatic, pressure-boostered double diaphragm pumps of the tim®BOOST series have been successfully used for years in the area of paint supply, to feed small and medium-sized painting lines.
In addition to high-level process reliability, long service life, minimal pulsation, maintenance-friendly structure, small and compact design, good workmanship and long service life, the pumps are characterised in particular by the high media pressures that can be achieved.
Moreover, the series has been extended by the model MHD1050 with residual quantity optimisation and complete emptying, such that the increasing demand for efficiency and resource optimisation allows considerable cost savings and optimisation.

Added values

Minimum pulsation

Minimal changeover times in conjunction with the short-stroke principle of the pumps reduce pulsation to a minimum and ensure a more uniform media flow.

Maximisation of service life

The ceramic slide valve that is used works nearly wear-free. The short-stroke principle prevents overstretching of the diaphragm and thus enables a long service life.

Reduced compressed air costs

Optimised geometries with minimal dead spaces, as well as the extremely low start-up pressures, starting at 0.7 bar, reduce energy consumption to a minimum.

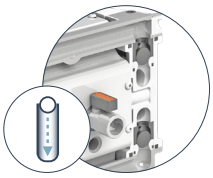
Start-up safety

Safe start-up of the pump is ensured, even in critical operating situations. The bistable, latching valve prevents problematic intermediate positions of the control valve.

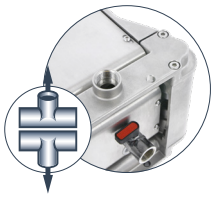
Minimal operating & maintenance costs

The low-wear ceramic slide valve and the maintenance-friendly design of the pump ensure extremely low service costs. In addition, the short-stroke principle prevents the diaphragms from overstretching and thus enables a significantly longer service life.

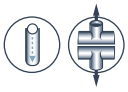
Versions / Technical data



Gravity-loaded valve balls

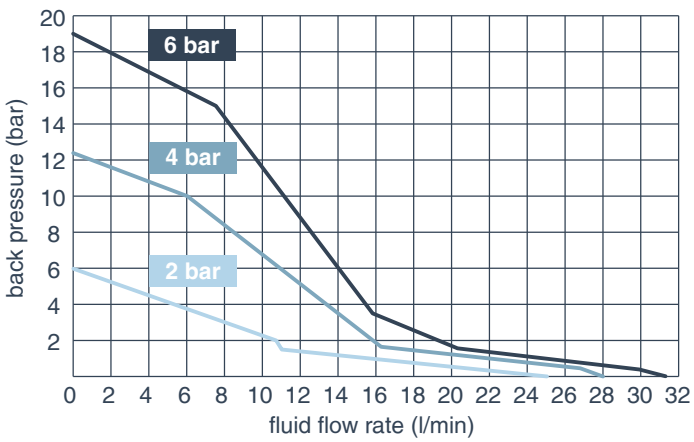


INLINE version

PTI-MHD1030	VA TF-VA-TF-VIEX-AL	I-VA TF-VA-TF-VIEX-AL
Order no.	53508574	53508576
Version		
Alignment of suction pipe	forward	downward
Alignment of pressure pipe	forward	upward
Material design	VA	
Atex*	✓	✓
Dimensions (L/W/H) in mm	191/198,7/154,5	191/198,7/169
Transmission ratio	approx. 3,5 to 1	
Flow rate (max.)	approx. 30 l/min (for water)	
Pump pressure (max.)	20 bar	
Drive	pneumatic	
Fluid connections	G 1/2“ internal thread 90° rotatable (Pipes in other design required!)	
Operation pressure	1 - 6 bar compressed air, filtered, unoiled or oiled	
Compressed air connection	G 3/8“	
Suction height, dry	approx. 4 meters self-priming	
Weight	approx. 10 kg	
Medium temperature	+5 °C to +65 °C	
	Material	
Side covers	stainless steel	
Middle housing section	aluminium	
Seals fluid side	FEPM	
Pneumatic seals	NBR	
Media pipes	stainless steel	
Valve ball seats	PTFE	
Valve balls	stainless steel	
Diaphragms	PTFE / NBR as composite material	
Control valve	ceramic flat slide valve	
Screws	stainless steel	
Cover plate	stainless steel	

*Permissible explosion ranges and operating conditions can be found in the operating instructions.

ADDITIONAL VERSIONS ON REQUEST



Media

The pump is suitable for pumping a wide variety of fluids (media). Resistance to the media that will be pumped must be checked on a case-by-case basis.

We would be happy to advise you on the suitability for your specific application.

www.timmer.de/en/timboost

tim BOOST®

High-pressure double diaphragm pump PTI-MHD1050

1/2"

max. 50 l/min

Stainless steel (VA)

The pneumatic, pressure-boostered double diaphragm pumps of the tim®BOOST series have been successfully used for years in the area of paint supply, to feed small and medium-sized painting lines.
In addition to high-level process reliability, long service life, minimal pulsation, maintenance-friendly structure, small and compact design, good workmanship and long service life, the pumps are characterised in particular by the high media pressures that can be achieved.
Moreover, the series has been extended by the model MHD1050 with residual quantity optimisation and complete emptying, such that the increasing demand for efficiency and resource optimisation allows considerable cost savings and optimisation.
These variants are delivered with an intelligent sensor, which allows real-time monitoring of the stroke signals with a customer PLC.
With connection of our tim®LINK module we enable many useful new features that increase profitability, process reliability and facilitate preventive maintenance.
Simply integrate our tim®LINK module into your system and benefit from these advantages.
All information in this regard is provided starting on page 38

Added values

Minimum pulsation

Minimal changeover times in conjunction with the short-stroke principle of the pumps reduce pulsation to a minimum and ensure a more uniform media flow.

Maximisation of service life

The ceramic slide valve that is used works nearly wear-free. The short-stroke principle prevents overstretching of the diaphragm and thus enables a long service life.

Process monitoring

The built-in intelligent stroke sensor offers a wide range of options for increasing process reliability. In addition to the precise determination of maintenance intervals, real-time data output allows conclusions to be drawn about the current status of the process.

Start-up safety

Safe start-up of the pump is ensured, even in critical operating situations. The bistable, latching valve prevents problematic intermediate positions of the control valve.

Minimal operating & maintenance costs

The low-wear ceramic slide valve and the maintenance-friendly design of the pump ensure extremely low service costs. In addition, the short-stroke principle prevents the diaphragms from overstretching and thus enables a significantly longer service life.

Reduced compressed air costs

Optimised geometries with minimal dead spaces, as well as the extremely low start-up pressures, starting at 0.7 bar, reduce energy consumption to a minimum.

Versions / Technical data

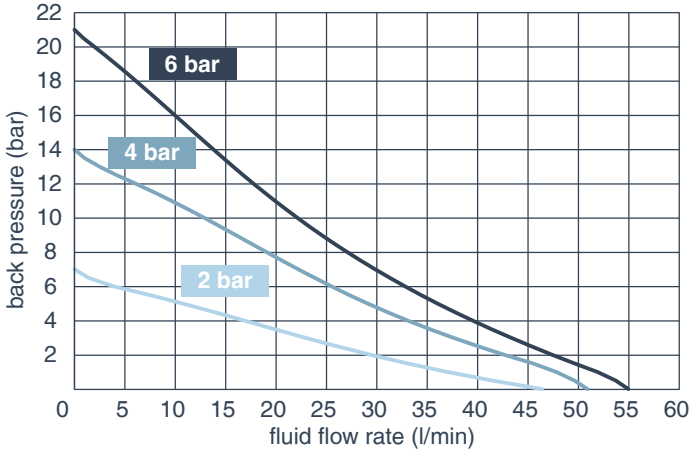
Integrated intelligent sensor (iHZ)

Spring-loaded valve balls

tim® TRON
Ready for Future

PTI-MHD1050	VA TF-VA-VA-VIEX-AL-iHZ
Order no.	53509084
Version	
Media pipes	180° rotatable
Material design	stainless steel
Atex*	✓
Integrated intelligent sensor (iHZ)	✓
Dimensions (L/W/H) in mm	232/261/251
Transmission ratio	approx. 3,5 to 1
Flow rate (max.)	approx. 50 l/min (for water)
Pump pressure (max.)	20 bar
Drive	pneumatic
Fluid connections	G 3/4“
Operation pressure	1 - 6 bar compressed air, filtered, unoiled or oiled
Compressed air connection	G 1/2“ internal thread
Suction height, dry	approx. 4 meters self-priming
Weight	approx. 15 kg
Medium temperature	+5 °C to +65 °C
	Material
Side covers	stainless steel
Middle housing section	aluminium
Seals fluid side	FEPM
Pneumatic seals	NBR
Media pipes	stainless steel
Valve ball seats	stainless steel
Valve balls	stainless steel
Springs	stainless steel
Diaphragms	PTFE/NBR as composite material
Control valve	ceramic flat slide valve
Cover plate	stainless steel
Screws	stainless steel

*Permissible explosion ranges and operating conditions can be found in the operating instructions.



Media

The pump is suitable for pumping a wide variety of fluids (media). Resistance to the media that will be pumped must be checked on a case-by-case basis.

We would be happy to advise you on the suitability for your specific application.

ADDITIONAL VERSIONS ON REQUEST

www.timmer.de/en/timboost

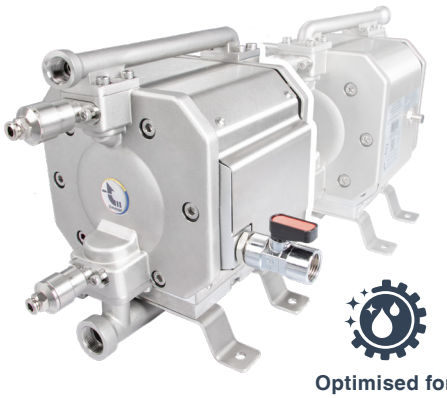
High-pressure double diaphragm pump PTI-MHD1050

1/2"

max. 28 l/min

Stainless steel (VA)

Optimised for residual quantities



Optimised for residual quantities

Complete emptying

The pneumatic, pressure-boostered double diaphragm pumps of the tim®BOOST series have been successfully used for years in the area of paint supply, to feed small and medium-sized painting lines.
In addition to high-level process reliability, long service life, minimal pulsation, maintenance-friendly structure, small and compact design, good workmanship and long service life, the pumps are characterised in particular by the high media pressures that can be achieved.
At a time when efficiency, process optimisations and process automation, are becoming increasingly significant, the MHD1050 series has been extended with appropriately optimised variants.
The versions described here have specially designed, undercut-free components that reduce the residual quantity of medium in the pump and optimise the pump's rinsing capability.
For the variant with additional residual quantity emptying, the valve balls can be lifted out of the seats via pneumatic actuators. This enables an almost complete return of the residual medium via the suction pipe of the pump.
These variants are delivered with an intelligent sensor, which allows real-time monitoring of the stroke signals by means of a customer PLC.
With connection of our tim®LINK module we enable many useful new features that increase profitability, process reliability and facilitate preventive maintenance.
Simply integrate our tim®LINK module into your system and benefit from these advantages.
All information in this regard is provided starting on page 38.

Added values

Minimum pulsation

Minimal changeover times in conjunction with the short-stroke principle of the pumps reduce pulsation to a minimum and ensure a more uniform media flow.

Maximisation of service life

The ceramic slide valve that is used works nearly wear-free. The short-stroke principle prevents overstretching of the diaphragm and thus enables a long service life.

Process monitoring

The built-in intelligent stroke sensor offers a wide range of options for increasing process reliability. In addition to the precise determination of maintenance intervals, real-time data output allows conclusions to be drawn about the current status of the process.

Start-up safety

Safe start-up of the pump is ensured, even in critical operating situations. The bistable, latching valve prevents problematic intermediate positions of the control valve.

Minimal operating & maintenance costs

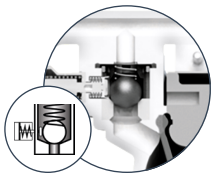
The low-wear ceramic slide valve and the maintenance-friendly design of the pump ensure extremely low service costs. In addition, the short-stroke principle prevents the diaphragms from overstretching and thus enables a significantly longer service life.

Reduced compressed air costs

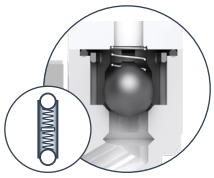
Optimised geometries with minimal dead spaces, as well as the extremely low start-up pressures, starting at 0.7 bar, reduce energy consumption to a minimum.

Versions / Technical data

Integrated intelligent sensor (iHZ)



Spring-loaded, pneumatically piloted valve balls



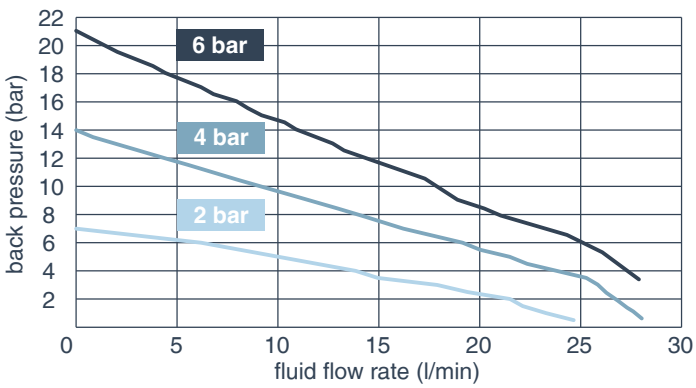
Spring-loaded valve balls

tim® TRON
Ready for Future

PTI-MHD1050	VA TF-VA-TF-VIEX-AL-RMO-iHZ	VA TF-VA-TF-VIEX-AL-RMO-RE-iHZ
Order no.	53509229	53509235
Version		
Media pipes	180° rotatable	
Material design	stainless steel	
Atex*	✓	✓
Integrated intelligent sensor (iHZ)	✓	✓
Dimensions (L/W/H) in mm	243/260/252	339/260/252
Transmission ratio	approx. 3,5 to 1	
Flow rate (max.)	approx. 28 l/min (for water)	
Pump pressure (max.)	20 bar	
Drive	pneumatic	
Fluid connections	suction side G 1/2“, pressure side G 3/8“	
Operation pressure	1 - 6 bar compressed air, filtered, unoiled or oiled	
Compressed air connection	G 1/2“ internal thread	
Suction height, dry	approx. 4 meters self-priming	
Weight	approx. 14 kg	approx. 14,5 kg
Medium temperature	+5 °C to +65 °C	
Material		
Side covers	stainless steel	
Middle housing section	aluminium	
Seals fluid side	FEPM	
Pneumatic seals	NBR/PUR	
Media pipes	stainless steel	
Valve ball seats	PTFE	
Valve balls	stainless steel	
Springs	stainless steel	
Diaphragms	PTFE/NBR as composite material	
Control valve	ceramic flat slide valve	
Residual emptying seal	-	PTFE
Cover plate	stainless steel	
Screws	stainless steel	

*Permissible explosion ranges and operating conditions can be found in the operating instructions.

ADDITIONAL VERSIONS ON REQUEST



Media

The pump is suitable for pumping a wide variety of fluids (media). Resistance to the media that will be pumped must be checked on a case-by-case basis.

We would be happy to advise you on the suitability for your specific application.

www.timmer.de/en/timboost

tim BOOST®

High-pressure double diaphragm pump PTI-MHD1065

1/2"

max. 65 l/min

Stainless steel (VA)

The pneumatic, pressure-boostered double diaphragm pumps of the tim®BOOST series have been successfully used for years in the area of paint supply, to feed small and medium-sized painting lines.
In addition to high-level process reliability, long service life, minimal pulsation, maintenance-friendly structure, small and compact design, good workmanship and long service life, the pumps are characterised in particular by the high media pressures that can be achieved.
Moreover, the series has been extended by the model MHD1050 with residual quantity optimisation and complete emptying, such that the increasing demand for efficiency and resource optimisation allows considerable cost savings and optimisation.
These variants are delivered with an intelligent sensor, which allows real-time monitoring of the stroke signals with a customer PLC.
With connection of our tim®LINK module we enable many useful new features that increase profitability, process reliability and facilitate preventive maintenance.
Simply integrate our tim®LINK module into your system and benefit from these advantages.
All information in this regard is provided starting on page 38.

Added values

Minimum pulsation

Minimal changeover times in conjunction with the short-stroke principle of the pumps reduce pulsation to a minimum and ensure a more uniform media flow.

Maximisation of service life

The ceramic slide valve that is used works nearly wear-free. The short-stroke principle prevents overstretching of the diaphragm and thus enables a long service life.

Process monitoring

The built-in intelligent stroke sensor offers a wide range of options for increasing process reliability. In addition to the precise determination of maintenance intervals, real-time data output allows conclusions to be drawn about the current status of the process.

Start-up safety

Safe start-up of the pump is ensured, even in critical operating situations. The bistable, latching valve prevents problematic intermediate positions of the control valve.

Minimal operating & maintenance costs

The low-wear ceramic slide valve and the maintenance-friendly design of the pump ensure extremely low service costs. In addition, the short-stroke principle prevents the diaphragms from overstretching and thus enables a significantly longer service life.

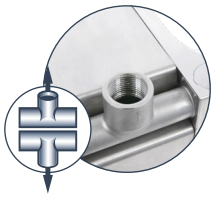
Reduced compressed air costs

Optimised geometries with minimal dead spaces, as well as the extremely low start-up pressures, starting at 0.7 bar, reduce energy consumption to a minimum.

Versions / Technical data

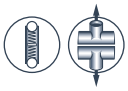
Integrated intelligent sensor (iHZ)

Spring-loaded valve balls

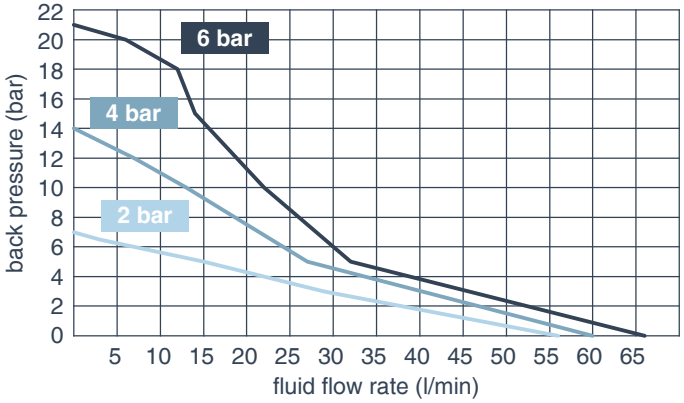


INLINE version

tim® TRON
Ready for Future

PTI-MHD	1065-VA TF-VA-VA-VIEX-AL-iHZ	1065I-VA TF-VA-VA-VIEX-AL-iHZ
Order no.	53508271	53508299
Version		
Alignment of suction pipe	forward	downward
Alignment of pressure pipe	forward	upward
Atex*	✓	✓
Integrated intelligent sensor (iHZ)	✓	✓
Dimensions (L/W/H) in mm	254,5/211,7/186,5	254,5/211,7/228
Transmission ratio	approx. 3,5 to 1	
Flow rate (max.)	approx. 65 l/min (for water)	
Pump pressure (max.)	20 bar	
Drive	pneumatic	
Fluid connections	G 1“ internal thread, 90° rotatable (Pipes in other design required!)	
Operation pressure	1 - 6 bar compressed air, filtered, unoiled or oiled	
Compressed air connection	G 1/2“ internal thread	
Suction height, dry	approx. 4 meters self-priming	
Weight	approx. 15,5 kg	
Medium temperature	+5 °C to +65 °C	
	Material	
Side covers	stainless steel	
Middle housing section	aluminium	
Seals fluid side	FEPM	
Pneumatic seals	NBR	
Media pipes	stainless steel	
Valve ball seats	stainless steel	
Valve balls	stainless steel	
Springs	stainless steel	
Diaphragms	PTFE/NBR as composite material	
Control valve	ceramic flat slide valve	
Cover plate	stainless steel	
Screws	stainless steel	

*Permissible explosion ranges and operating conditions can be found in the operating instructions.



Media

The pump is suitable for pumping a wide variety of fluids (media). Resistance to the media that will be pumped must be checked on a case-by-case basis.

We would be happy to advise you on the suitability for your specific application.

ADDITIONAL VERSIONS ON REQUEST

www.timmer.de/en/timboost

tim BOOST®

High-pressure double diaphragm pump PTI-MHD1110

1 "

max. 110 l/min

Stainless steel (VA)

The pneumatic, pressure-boostered double diaphragm pumps of the tim®BOOST series have been successfully used for years in the area of paint supply, to feed small and medium-sized painting lines.
In addition to high-level process reliability, long service life, minimal pulsation, maintenance-friendly structure, small and compact design, good workmanship and long service life, the pumps are characterised in particular by the high media pressures that can be achieved.
Moreover, the series has been extended by the model MHD1050 with residual quantity optimisation and complete emptying, such that the increasing demand for efficiency and resource optimisation allows considerable cost savings and optimisation.
These variants are delivered with an intelligent sensor, which allows real-time monitoring of the stroke signals with a customer PLC.
With connection of our tim®LINK module we enable many useful new features that increase profitability, process reliability and facilitate preventive maintenance.
Simply integrate our tim®LINK module into your system and benefit from these advantages.
All information in this regard is provided starting on page 38.

Added values

Minimum pulsation

Minimal changeover times in conjunction with the short-stroke principle of the pumps reduce pulsation to a minimum and ensure a more uniform media flow.

Maximisation of service life

The ceramic slide valve that is used works nearly wear-free. The short-stroke principle prevents overstretching of the diaphragm and thus enables a long service life.

Process monitoring

The built-in intelligent stroke sensor offers a wide range of options for increasing process reliability. In addition to the precise determination of maintenance intervals, real-time data output allows conclusions to be drawn about the current status of the process.

Start-up safety

Safe start-up of the pump is ensured, even in critical operating situations. The bistable, latching valve prevents problematic intermediate positions of the control valve.

Minimal operating & maintenance costs

The low-wear ceramic slide valve and the maintenance-friendly design of the pump ensure extremely low service costs. In addition, the short-stroke principle prevents the diaphragms from overstretching and thus enables a significantly longer service life.

Reduced compressed air costs

Optimised geometries with minimal dead spaces, as well as the extremely low start-up pressures, starting at 0.7 bar, reduce energy consumption to a minimum.

Versions / Technical data

Integrated intelligent sensor (iHZ)

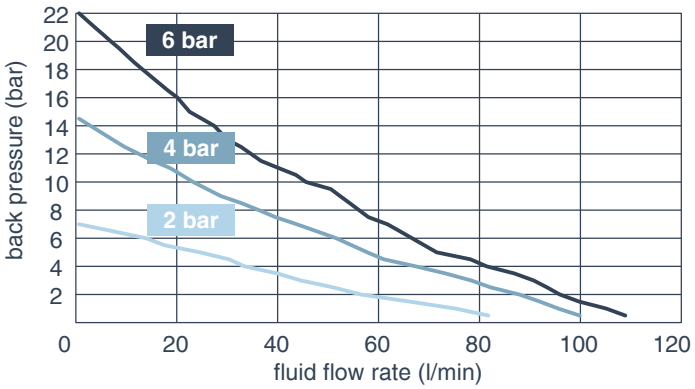
Gravity-loaded valve balls

tim® TRON
Ready for Future

PTI-MHD1110	V-VA TF-VA-TF-FEPM-AL-iHZ
Order no.	53509578
Version	
Media pipes	180° rotatable
Material design	stainless steel
Atex*	✓
Integrated intelligent sensor (iHZ)	✓
Dimensions (L/W/H) in mm	406,9/305/325
Transmission ratio	approx. 4 to 1
Flow rate (max.)	approx. 110 l/min (for water)
Pump pressure (max.)	25 bar
Drive	pneumatic
Fluid connections	G 1“
Operation pressure	1 - 7 bar compressed air, filtered, unoiled or oiled
Compressed air connection	G 1/2“ internal thread
Suction height, dry	approx. 4 meters self-priming
Weight	approx. 45 kg
Medium temperature	+5 °C to +65 °C
	Material
Side covers	stainless steel
Middle housing section	aluminium
Seals fluid side	FEPM
Pneumatic seals	NBR/PUR
Media pipes	stainless steel
Valve ball seats	PTFE
Valve balls	stainless steel
Diaphragms	PTFE/NBR as composite material
Control valve	ceramic flat slide valve
Cover plate	stainless steel
Screws	stainless steel

*Permissible explosion ranges and operating conditions can be found in the operating instructions.

ADDITIONAL VERSIONS ON REQUEST



Media

The pump is suitable for pumping a wide variety of fluids (media). Resistance to the media that will be pumped must be checked on a case-by-case basis.

We would be happy to advise you on the suitability for your specific application.

www.timmer.de/en/timboost

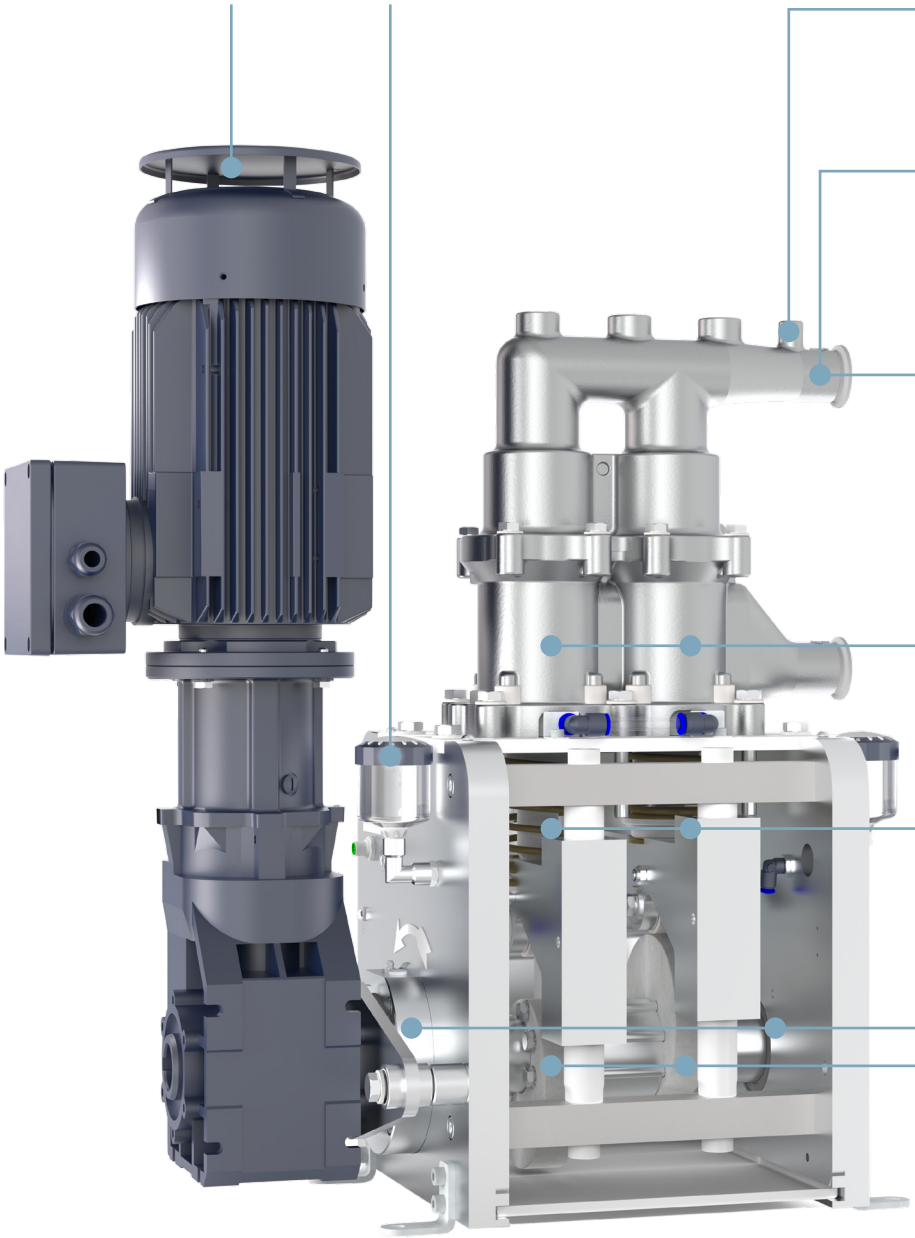
Electrical piston pumps
PTI-KPE2010/2020/2030/2040/2060

10 - 60
l/min

Compact Design

Savings potential due to energy-saving powerful drive for highly dynamic media delivery flow.

Permanent lubrication system ensures a constant lubrication of the track rollers for approx. one year.



Connection options for e.g. sensors.

Minimal piping with small paint volumes within the pump.

The clamp connection allows versatile and individual connection options.

Vertical arrangement of the pistons ensures less wear of the valves and makes springs inside the valve obsolete.

Innovative piston drive kinematics.

Grease deposits on the bearings of the drive shaft.

Disc cam mechanism ensures absolute low-pulsation media flow.

Cost savings

- No compressed air systems required
- Reduced operating costs due to low power consumption
- Longer service life due to less wear
- Complete control of pump capacity via customer-provided controller
- Medium-friendly conveying
- High process reliability
- Easy maintenance due to modular design

ON REQUEST WE ALSO OFFER A SUITABLE CONTROLLER

Possibilities

Control through innovative tim®ECO software	
Operation via touch panel / buttons	✓
Pressure regulation and volume-flow regulation can be preselected	✓
Rights management and user management	✓
Versatile parameter settings are possible	✓
Graphic display of the pressure curve	✓
Graphic display of the volume flow curve	✓
Siemens® S7® controller	✓
Monitoring of pressure and volume flow as well as motor temperature	✓
Production data acquisition (delivery volume and operating time)	✓
Connection: 3 x 400V, 50 Hz	✓
Inherently safe disconnect of the pressure sensor, pressure switch and return flow regulator	✓

Electrical piston pumps
PTI-KPE2010/2020/2030/2040/2060

10 - 60
l/min

The electric piston pumps of the tim®ECO series have been especially developed for paint supply systems. The small, compact design allows the integration of the pump without significant effort. This offers advantages, especially in retrofit projects.The pumps of the KPE-series also provide many other benefits.

- Low-shearing medium flow that increases the usability of the medium.
- Permanent lubrication system, which ensures constant lubrication of the bearings.
- Matched piston drive kinematics ensure a uniform media flow.
- Vertically arranged pistons, which ensure a uniform load on the piston seals and thus better service life.
- Short piping lengths resulting in lower paint filling volumes. Sensors can be attached directly to the pump to monitor the system with minimal effort.

These variants are delivered with an intelligent sensor, which allows real-time monitoring of the rotational speed via customer's PLC. With connection of our tim®LINK module we enable many useful new features that increase profitability, process reliability and facilitate preventive maintenance. Simply integrate our tim®LINK module in your system and benefit from these advantages.
Alle Infos dazu finden Sie ab Seite 38

Added values

Fast response time

Vertically arranged pistons enable fast reaction times to keep the closed circular pipeline pressure constant.

Minimal pulsation

The unique cam disk kinematics ensure absolutely low pulsation flow delivery.

Compact design

The arrangement of pump, gearbox and motor enables a very compact design. This enables new systems to be planned with significantly less installation space and existing systems can be retrofitted without any problems.

Process monitoring

The built-in intelligent stroke sensor offers a wide range of options for increasing process reliability. In addition to the precise determination of maintenance intervals, real-time data output allows conclusions to be drawn about the current status of the process.

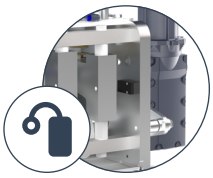
Minimal operating & maintenance costs

The durable guides and the maintenance-friendly design of the pump ensure extremely low service costs. In addition, the built-in permanent lubricators ensure a significantly longer service life of the components.

Simple sensor connection

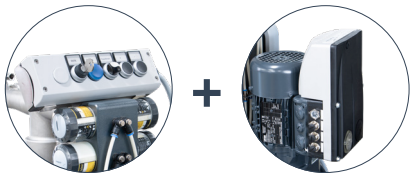
The special pressure pipe design allows up to 4 additional sensors to be integrated easily and without further installation effort.
This efficient solution saves time and costs during implementation.

Versions / Technical data



Integrated intelligent sensor (iHZ)

optionally:



Integrated decentralised NON-ATEX control

tim® TRON Ready for Future

tim® ECO

PTI-KPE	2010 VA-TF-PE-FEPM-EX-20bar	2020 VA-TF-PE-FEPM-EX-20bar	2030 VA-TF-PE-FEPM-EX-20bar	2040 VA-TF-PE-FEPM-EX-20bar	2060 VA-TF-PE-FEPM-EX-20bar
Order no.	53602352	53602325	53602302	53602324	53602303
Pressure pipe	with connection options for e.g. sensors				
Atex*	✓	✓	✓	✓	✓
Integrated intelligent sensor (iHZ)	✓	✓	✓	✓	✓
Dimensions (L/W/H) in mm	654/350/685	643,5/350/713,1	652/350/799	686,5/350/815,5	703,5/350/868
Flow rate (for water)	1,9 to 10 l/min	3,75 to 20 l/min	5,6 to 30 l/min	7,5 to 40 l/min	11 to 60 l/min
Pump pressure (max.)	20 bar				
Drive	electrical gear motor				
Possible install position	horizontal				
Fluid connections	clamp 50,5 mm				
Piston diameter	Ø 70 mm			Ø 100 mm	
Piston stroke	50 mm				
Suction height, dry	approx. 6 meters				
Weight	approx. 135 kg	approx. 130 kg	approx. 142 kg	approx. 164 kg	approx. 195 kg
Noise level	approx. 70 dB(A)				
Viscosity of pumped medium	up to 15.000 mPas				
Medium temperature	+5 °C to +65 °C				
	Electrical data				
Electrical connection	3 x 400 V / 50 Hz				
Motor power (control range 10 Hz to 87 Hz in FC Operation)	0,35 kW (50 Hz)	0,75 kW (50 Hz)	1,1 kW (50 Hz)	1,5 kW (50 Hz)	2,2 kW (50 Hz)
	Material				
Cylinder head	stainless steel				
Cylinder block	stainless steel				
Piston	stainless steel, coated				
Bellows	PTFE-Compound				
Piston seal	PE-Compound				
Seals fluid side	FEPM				
Valve balls	stainless steel				
Valve ball seats	stainless steel				

*Permissible explosion ranges and operating conditions can be found in the operating instructions.

ADDITIONAL DRIVES* ON REQUEST
*ATEX may require testing

Media

The pump is suitable for pumping a wide variety of fluids (media). Resistance to the media that will be pumped must be checked on a case-by-case basis.

We would be happy to advise you on the suitability for your specific application.

www.timmer.de/en/timeco

Material back-pressure regulator WTI-MDRP

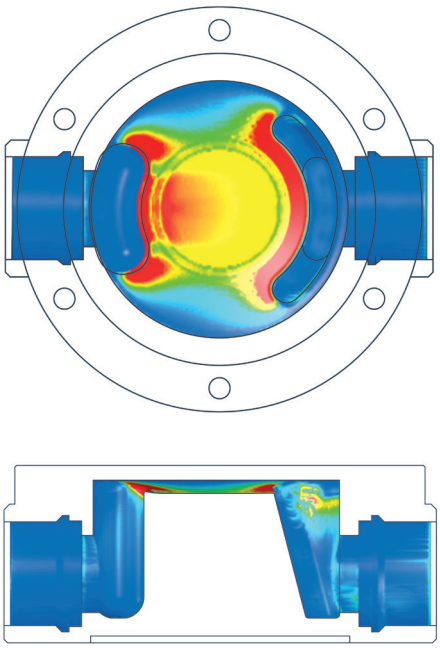
3/4"
max. 40 l/min

Stainless steel (VA)

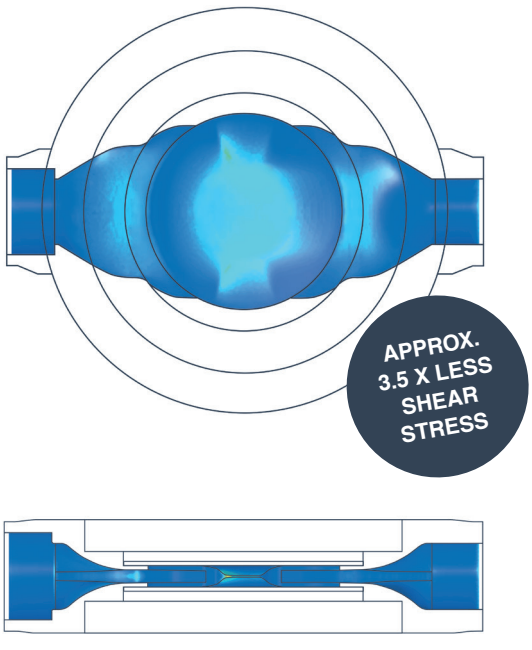
The tim®ECO material back-pressure regulator from Timmer was specially developed for a low-shear process cycle in the paint supply sector.
Since discharge volumes in the operation of the ring circuit system are time-independent, or in other words irregular, there are pressure fluctuations within the ring circuit system. The pneumatically adjustable material back-pressure regulator solves this problem and ensures that a constant back-pressure is achieved through automatic flow cross-section adjustments.
Compared with conventional material back-pressure regulators, the tim®ECO material back-pressure regulator, due to its diaphragm arrangement, generates significantly less shear stress of the medium.
Thus the fluid can be used in the process significantly longer.
The material back-pressure regulator is available with individual connections if required.

Shear stress

Conventional material back-pressure regulator



tim® ECO | material back-pressure regulator



Versions / Technical data

WTI-MDRP	3/4-20-VA-TF-KS50,5
Order no.	53504050
Material design	stainless steel
Atex*	✓
Dimensions (L/W/H) in mm	160/130/61
Transmission ratio	approx. 3 to 1
Control range, fluid side	3 - 20 bar, 5 - 40 l/min
Fluid pressure (max.)	25 bar
Fluid connections	clamp connections Ø 50,5 mm (M28 x 1,5 thread for accommodation of individual connections)
Operation pressure	1 - 8 bar compressed air, filtered, unoiled or oiled
Weight	approx. 2,8 kg
Viscosity of pumped medium	up to 15.000 mPas
Ambient temperature	+5 °C to +35 °C at maximum 80% relative humidity
Medium temperature	+5 °C to +60 °C
Media	paints, varnishes and solvents (The resistance to media must be checked on a case-by-case basis.)
Material of the parts in contact with the medium	stainless steel, PTFE
	Material
Housing	stainless steel / aluminium alloy
Basic body	stainless steel
Piston	aluminium alloy
Control diaphragm	PTFE (media side)
Diaphragm air side	NBR
Seals	PTFE

*Permissible explosion ranges and operating conditions can be found in the operating instructions.

OTHER CONNECTIONS ON REQUEST

Media

The material back-pressure regulator is suitable for a wide variety of fluids (media). Resistance to the media that will be used must be checked on a case-by-case basis.

We would be happy to advise you on the suitability for your specific application.

Added values

Material back-pressure regulator	
Low-shear material flow	✓
Excellent rinsing capability	✓
Low-maintenance	✓
Minimal paint carryover	✓
Compact design enables installation in a small space	✓
Individual positioning, as there is no prescribed install direction or flow direction	✓
Connections can be individually selected or interchanged	✓
1:1 exchange with old devices of different makes (in accordance with connection dimensions)	✓

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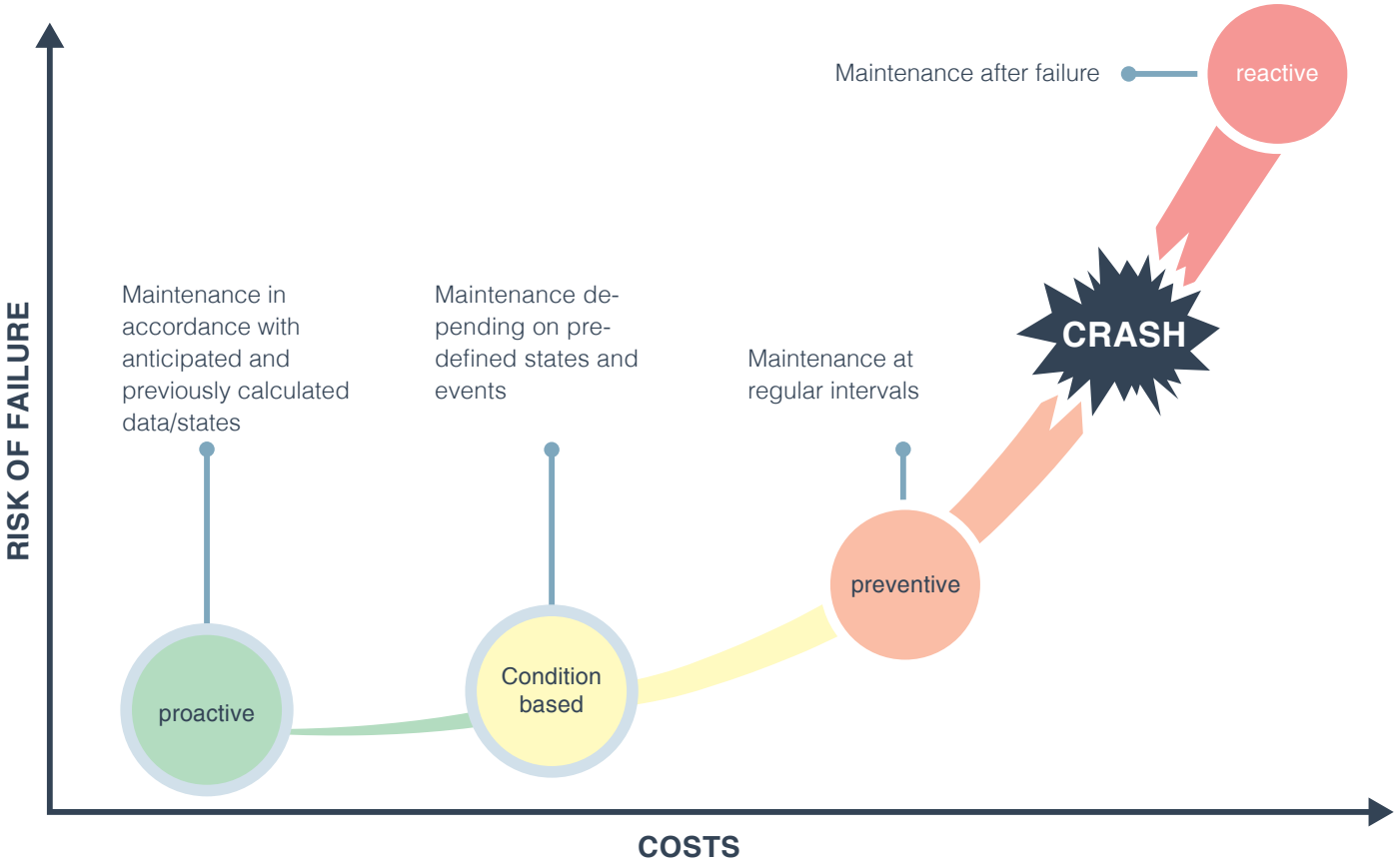
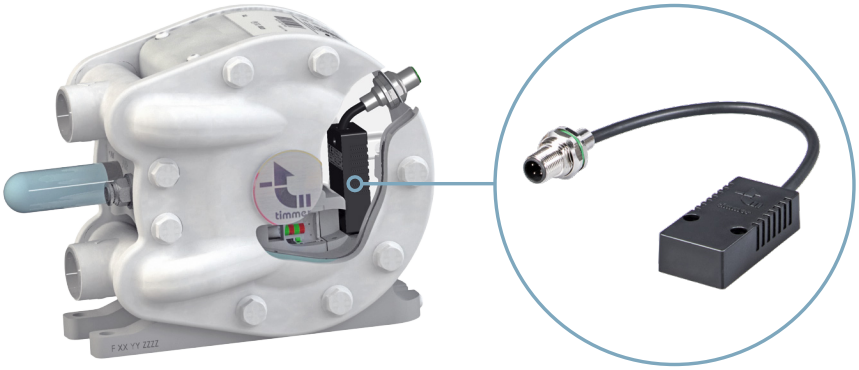
Why condition monitoring?



Added value through smart pump monitoring

Advantages	
Efficient organisation of processes through meaningful data enables sound decision-making criteria	✓
Digitalisation and transparent process design	✓
Predictions and planning become verifiable via data	✓
Higher system availability and increased productivity through reduction of unforeseen failures	✓
Reduction of downtime, damage and losses due to predictive maintenance	✓
Optimal utilisation of the pump over the entire service life	✓
Operating data acquisition and statistical analysis for easy calculation of operating costs and optimisation of system utilisation	✓

Intelligent sensor



tim® TRON
Ready for Future

Our intelligent sensor offers a number of impressive advantages over conventional sensors. These advantage will both exceed your requirements and your expectations.

When the priority is stroke detection and speed detection, our sensor provides precise and reliable data so that accurate information is always available to you. At the same time, it meets the rigorous EX requirements; this means that it can be safely used in explosive environments.

Compatibility with NAMUR isolating switching amplifiers makes our sensor extremely flexible and easy to integrate into your existing infrastructure. Moreover, the sensor is seamlessly integrated in the pump housing and in addition to aesthetic appeal, this also saves space.

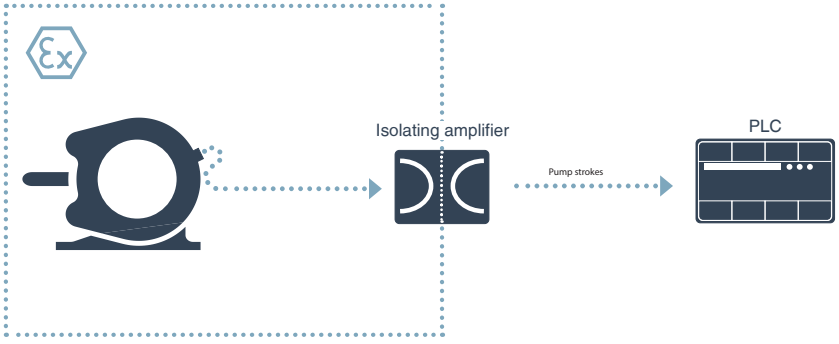
The sensor offers the possibility of resetting the stroke counter and using the stroke counter as a maintenance counter. Based on operational experience, the number of strokes can be set in advance and this number can subsequently be counted down. Intelligent adaptation of the switch points offers complete operational control.

On request, for additional flexibility we offer a variable position of the connector to ensure that the sensor fits perfectly in your setup.

Stroke counter

The stroke counter is capable of detecting the strokes with the utmost precision. This function enables precise monitoring and control of processes. And it makes the stroke counter a valuable component in Timmer double diaphragm pumps.

System structure for stroke counting via PLC

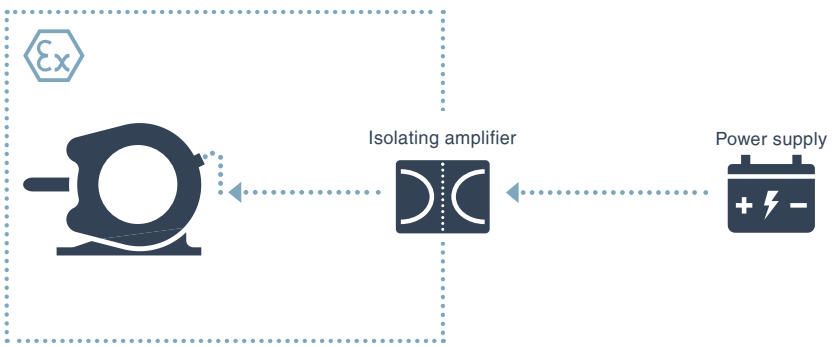


Technical Data

Input voltage Ui	: ≤ 16 V
Input current Ii	: ≤ 30 mA
Input power Pi	: ≤ 100 mW
Protection class	: IP 67
Permissible ambient temperature	: -25 to +70°C
Connections	: SAL connector M12x1, 4-polig
Cable length	: 200 mm
Ex protection	: ATEX (see the operating manual for additional information)

Alternative system structure for pure power supply

A continuous power supply in operation is necessary so that the sensor can record data. In the Ex area this can be accomplished with a Zener barrier.



www.timmer.de/en/timtron

tim®LINK - iHZ management module

The new tim®LINK module offers extensive possibilities for smart monitoring of important process parameters. From within the Ex zone, during pump operation the tim®LINK module enables access to the pump information and access to the extended functions of the intelligent stroke counter (iHZ). All important information can be called up during pump operation.

tim®LINK enables monitoring of the pump's operating behaviour. In the event of asymmetric operating behaviour, actions such as warning signal / light signal or a safety shut-down can be triggered. This means that you can take a faulty pump out of the process in good time and optimise the process by means of data analysis.
The total number of strokes performed since commissioning, and the total number of strokes performed since last maintenance can be read-out separately. The recorded histograms show use profiles of the pumps and they enable transparent evaluation. Identification of the pump in the system is ensured by the serial number or by a writeable inventory number. Pumps that have been serviced or replaced, automatically signal their presence in the system.

The tim®LINK module offers connection possibilities for 2 double diaphragm pumps. In addition, two sensors with 4 to 20 mA output can be connected, for instance, pressure sensors.

The tim®LINK module can also tap the familiar stroke pulses, as usual. For customer PLC applications the tim®LINK module provides a Modbus interface for integration of the pump information. This means that these data can then be displayed in your plant visualisation and additional links can be programmed (e.g. signal horn, warning lamp).

PC applications can also access the pump data via a UART interface. Timmer can also offer a finished visualisation function via the Intranet. As a user you can also easily carry out a retrofit and benefit economically from the advantages.

Added values

Symmetry signal

tim®LINK makes it possible to monitor the operating behaviour of the pump. In the event of asymmetric operating behaviour actions such as a warning signal / light signal or a safety shut-down can be triggered.

Stroke counter

The stroke counter is capable of detecting the strokes with the utmost precision. This function enables precise monitoring and control of processes. And it makes the stroke counter a valuable component in Timmer double diaphragm pumps.

Maintenance counter

The stroke counter is capable of detecting strokes with the utmost precision and it can also be reset or restarted at any time. This function enables precise monitoring and control of processes.

Current pump frequency

The intelligent sensor records the current stroke frequency and other operating data. This enables a detailed pump performance analysis and contributes to efficient monitoring and maintenance.

Average pump frequency

The intelligent sensor records the average stroke frequency and other operating data, which in turn enables a detailed pump performance analysis and contributes to efficient monitoring and maintenance.

Frequency-dependent stroke count

The intelligent sensor detects the total number of pump strokes and stores these data, which is significant for the precise recording, continuous monitoring and analysis of pump maintenance and pump performance.

Frequency histogram

The frequency histogram on the intelligent sensor enables a detailed pump performance analysis, which in turn contributes to efficient monitoring and maintenance.

Unique ID

In addition to stroke detection / speed detection, the intelligent sensor also enables unique allocation of the sensor and pump by reading out the serial number.

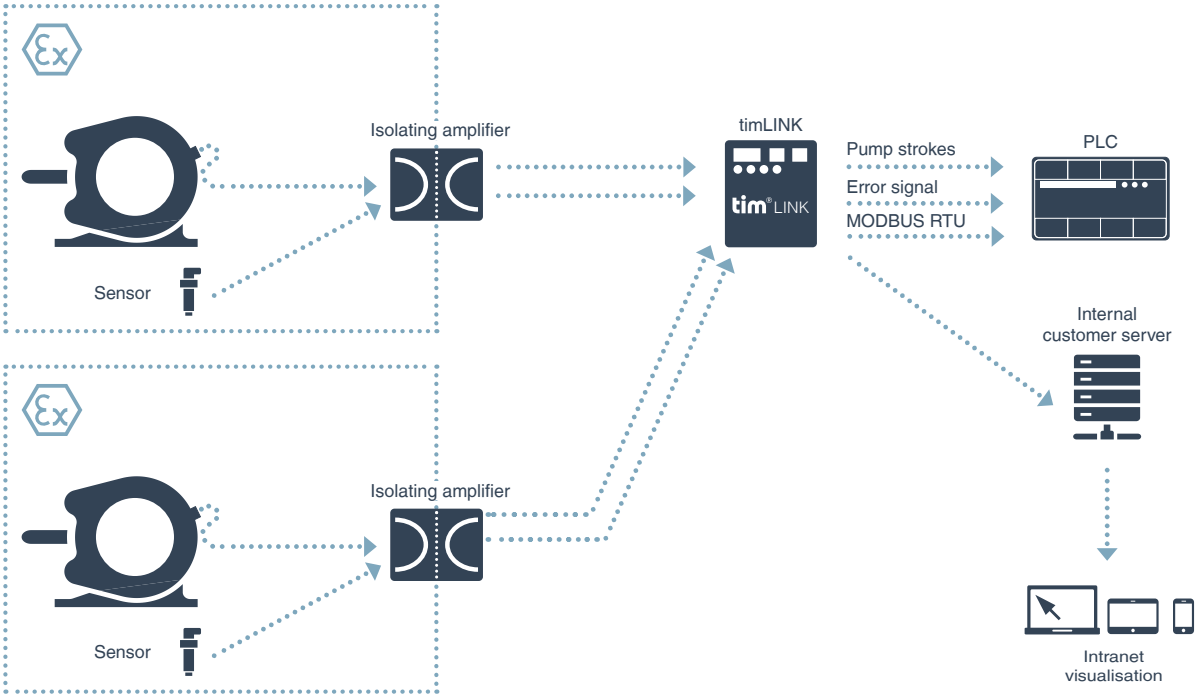
STI-timLINK-module

Order no.	Type	Design	Designation
53507977	STI-timLINK-Modul-MEM	modul for type MEM and MHD	Monitoring module for diaphragm pumps

Technical data

Power supply	: 24 V DC
Analog Inputs	: 2x 4-20 mA e.g. for pressure sensor
Outputs	: 2x stroke counting (Pulse), 2x error status
Interfaces	: 1x Modbus RTU, 1x UART
Installation	: on DIN rail
Dimensions (L/W/H) in mm	: 119/23/101

System overview in full extension



Example visualisation

www.timmer.de/en/timtron

USB adapter

This USB adapter enables read-out of the data stored by the intelligent sensor. Classically this occurs outside of the application/production (e.g. in the workshop). This adapter must only be used outside of the Ex zone.
A live transmission and read-out of the operating data during operation are possible with our tim®LINK pump monitoring system.

Visualisation via USB adapter (offline)

READ-OUT WITH USB ADAPTER

Unique ID

Stroke counter 1 (no reset possible)

Stroke counter 2 (reset possible)

Pumping frequency

ø-Pumping frequency

Frequency-dependent number of strokes

Frequency histogram

USB adapter

Order no.	Type	Description
53507661	STI-Magnetsensor-USB-Adapter	for reading out the stored data of the intelligent sensor

Read-out of pump data via USB adapter (offline)

The prerequisite for reading out pump data via USB adapters is that the data must be present on the sensor.
In order for the sensor to record data, a continuous power supply in operation is necessary.
In the Ex area this can be accomplished with a Zener barrier.

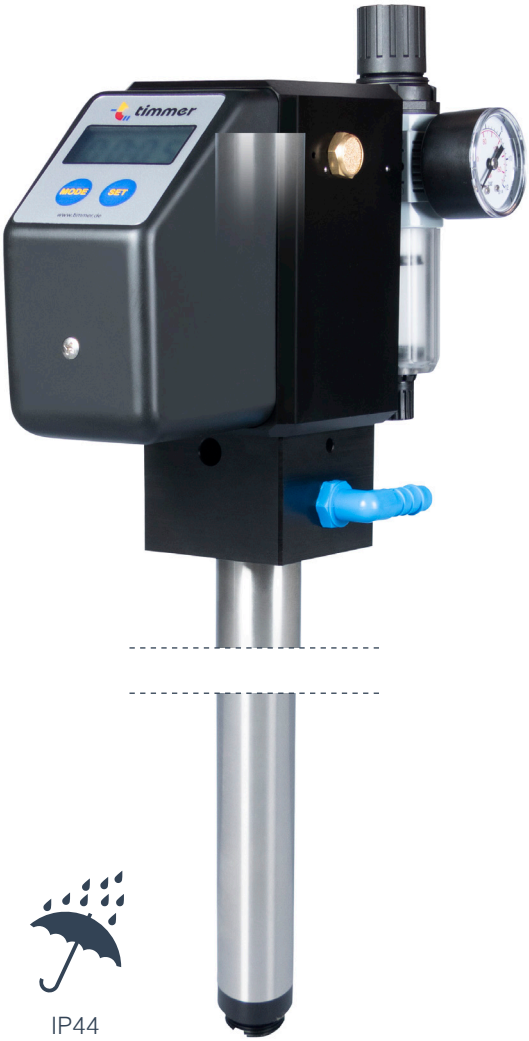
Technical data – USB adapter

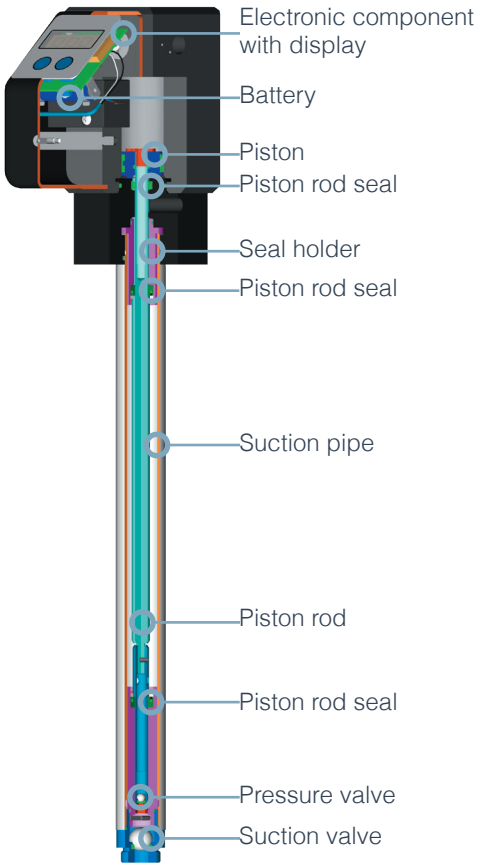
Input voltage U_i	: 5 V DC
Input current I_i	: ≤ 24 mA
Protection class	: > IP 20
Permissible ambient temperature	: +10°C to +35°C
Connections	: SAL bush M12x1, 4-pole, USB-plug type A
Cable lengths	: 1000 mm (USB-side); 2000 mm (sensor-side)
Ex protection	: not permitted in the ATEX area

Typical dynamic viscosities

Substance	Temperature	Viscosity (mPas)
Honey	40 °C	2000
Blood	37 °C	4 to 25
Printing ink	40 °C	550 to 2,200
Liquid egg	45 °C	150
Liquid soap	60 °C	85
Fruit juice	20 °C	50
Vegetable soup	20 °C	430
Glucose	25 °C	4,300 to 6,800
Glycol	20 °C	40
Glycerine 100%	20 °C	1500
Glycerine 100%	0 °C	12100
Hand cream	20 °C	8000
Yoghurt	40 °C	150
Jam	20 °C	8500
Varnish (25% pigments)	20 °C	3000
Liqueur	20 °C	10 to 100
Milk	20 °C	2
Engine oil SAE 15W40	20 °C	390
Engine oil SAE 15W40	-15 °C	3000
Sodium hydroxide 50%	20 °C	45
Olive oil	40 °C	40
Petroleum	20 °C	0.65
Mercury	20 °C	1.55
Shampoo	20 °C	3000
Syrup	20 °C	100000
Tomato ketchup	30 °C	1000
Water	20 °C	1
Water-based varnish	20 °C	900
Toothpaste	40 °C	70000

Pneumatic coagulant pumps
PTI-E2-KDP-ZST / PTI-E2-KDP





Added values

Pneumatic coagulant pumps	
Integrated pneumatic electronic control	✓
Separate air and fluid parts	✓
High vacuum during priming	✓
Improved liquid conceyance	✓
Easy operating	✓
Low noise	✓
Cost effective	✓

Versions / Technical data

Time control
When the pre-set time has elapsed, a pumping stroke is performed automatically and the pre-set time starts over again from the beginning.

Time storage
The pumping stroke starts automatically once the preset time has elapsed.
In this operating mode the total time consists of several individual time intervals. For example, if the total time is set to 5 minutes and the individual work process takes 1 minute, these minutes are added. Whereby the pause time between the operating processes is not included in the total time.

Basic version
The pump is not equipped with an own control valve. The function should be controlled with an external 5/2- or 4/2-way valve. Compressed air connection of the pump: 1/8" internal thread.

Continuous stroke
The pump has integrated control valves for oscillating operation. Once the compressed air supply is switched on, the pump starts constantly pumping. The stroke speed can be adjusted via a throttle.

Pneumatic coagulant pumps PTI-E2-KDP-ZST

Order no.	Type	Flow rate (per double stroke)	Suction pipe length	Control
52100040	PTI-E2-KDP-ZST-06-630-FKM	6 ml	630 mm	Time control
52100044	PTI-E2-KDP-ZST-06-400-FKM	6 ml	400 mm	Time control

Additional versions of the pneumatic coagulant pump PTI-E2-KDP

Order no.	Type	Flow rate (per double stroke)	Suction pipe length	Control
52100041	PTI-E2-KDP-ZST-30-630-FKM	30 ml (0,9 l/min / 54 l/h)	630 mm	Time control
52100053	PTI-E2-KDP-ZST-30-400-FKM	30 ml (0,9 l/min / 54 l/h)	400 mm	Time control
52050216	PTI-E2-KDP-ZSP-06-630-FKM	6 ml (0,18 l/min / 10,8 l/h)	630 mm	Time storage
52050220	PTI-E2-KDP-ZSP-06-400-FKM	6 ml (0,18 l/min / 10,8 l/h)	400 mm	Time storage
52050217	PTI-E2-KDP-ZSP-30-630-FKM	30 ml (0,9 l/min / 54 l/h)	630 mm	Time storage
52050222	PTI-E2-KDP-ZSP-30-400-FKM	30 ml (0,9 l/min / 54 l/h)	400 mm	Time storage
52050067	PTI-E2-KDP-G-06-630-FKM	6 ml (0,18 l/min / 10,8 l/h)	630 mm	Basic version
52050115	PTI-E2-KDP-G-30-630-FKM	30 ml (0,9 l/min / 54 l/h)	630 mm	Basic version
52050118	PTI-E2-KDP-G-30-400-FKM	30 ml (0,9 l/min / 54 l/h)	400 mm	Basic version
52050006	PTI-E2-KDP-OS-06-630-FKM	6 ml (0,18 l/min / 10,8 l/h)	630 mm	Continuous stroke
52050002	PTI-E2-KDP-OS-06-400-FKM	6 ml (0,18 l/min / 10,8 l/h)	400 mm	Continuous stroke

Technical data

Drive	: pneumatic
Drive principle	: self-priming - volumetric
Suction height	: self-priming approx. 5 m WS
Output (with water)	: 6 cm³ / doublestroke (0,18 l/min / 10,8 l/h)
Number of strokes	: max. 30 double strokes / min
Temperature of media	: max. 70 °C
Viscosity of pumped medium	: max. 100.000 mPas
Suction side - Connection	: suction pipe / G 3/4
Pressure side - Connection	: hose nozzle NW 9 mm - 3/8"
Weight	: 2,5 kg
Overall length	: 805 mm (other lengths on request)
Battery	: 3,6 Volt
Protection class	: IP44

Pneumatic data

Compressed air connection	: PU hose 6/4 mm G1/4"
Operating air pressure	: 3 - 6 bar filtered compressed air
Air consumption (max.)	: 15 l/min (continuous operation)
Solenoid valve	: 3/2-ways piezo valve

Materials

Drive housing	: POM
Fluid housing	: POM
Suction pipe	: stainless steel
Seals fluid side	: PU-modified, conditionally acid and alkali resistant
Fluid valve balls	: stainless steel
Electrical housing	: PE
Pressure joint	: POM - 9 mm hose nozzle
Suction nozzle	: POM
Fluid valve seat	: FKM - O-Ring

Media

The pump is suitable for pumping a wide variety of fluids (media). Resistance to the media that will be pumped must be checked on a case-by-case basis.

We would be happy to advise you on the suitability for your specific application.

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Accessories

Suction pipes extensions (stainless steel pipes up to max. 100 cm, suction valve)

Order no.	Type	Extension
52060070-250-FKM	PTI-E2-ZUB-Z430-250-FKM	250 mm
52060070-330-FKM	PTI-E2-ZUB-Z430-330-FKM	330 mm
52060070-430-FKM	PTI-E2-ZUB-Z430-430-FKM	430 mm

Mounting clamp ring (pump heigth adjustment)

Order no.	Type	Scope of supply
52060024	PTI-E2-ZUB-Z610-Montagering	plastic clamp, thrust piece, clamping screw

Battery (3,6 Volt)

Order no.	Type	Service life
52030250	PTI-E2-ZUB-Z900-Batterie	approx. 1 year

Wide neck barrel with reinforced lid (PE-Wide neck barrel, reinforced lid)

Order no.	Type	Liters	Required length of suction pipe
52060034	PTI-E2-ZUB-Fass-30L	30	400 mm
52020034	PTI-E2-ZUB-Fass-60L	60	630 mm

Compressed air connection with hose
(compressed air hose, nozzle for coupling DN 7)

Order no.	Type	Hose length	Hose ø internal	Hose ø external
52060090	PTI-E2-ZUB-DLA-2M	2 m	4 mm	6 mm
52060091	PTI-E2-ZUB-DLA-5M	5 m	4 mm	6 mm

Conveying hose PVC

Order no.	Type	Hose length	Scope of supply
52060095	PTI-E2-ZUB-Förderschlauch-2M	2 m	PVC hose15/9, hose clamp, hose nozzle, check valve, ball valve, fully assembled
52060096	PTI-E2-ZUB-Förderschlauch-5M	5 m	

E - Dual stop valve 1/4“

Order no.	Type	Application
52060054	PTI-E2-ZUB-Förderschlauch-2M	Holding of spray gun: pilot air is cut-off, time is interrupted.

Start-pressure valve

Order no.	Type	Application
23900003	PTI-E2-ZUB-STDV-32-1/4-NG	As soon as the spray gun is used, the preset time at the pump starts running.

NOTES

WE ARE REPRESENTED INTERNATIONALLY:

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India | Indonesia | Italy | Japan | Luxembourg | Mexico | Netherlands | Poland | Romania | Slovakia
Slovenia | South Africa | Spain | Thailand | Turkey | United Kingdom | USA

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