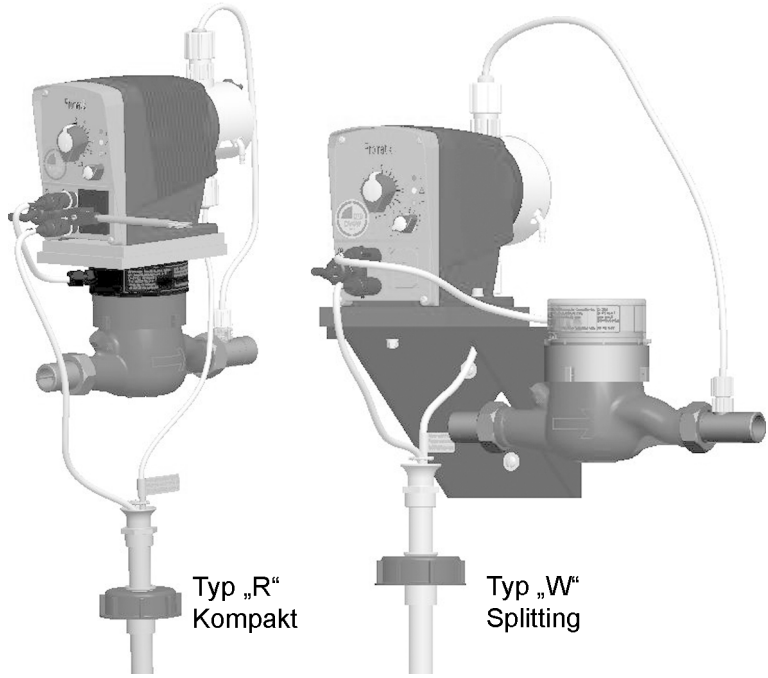
Operating instructions

Proportional Flow Dosing System Promatik® NG

with DVGW registration number NW-9101CM0179

EN



Typ „R“
Kompakt

Typ „W“
Splitting

Please carefully read these operating instructions before use. · Do not discard.
The operator shall be liable for any damage caused by installation or operating errors.
The latest version of the operating instructions are available on our homepage.

Supplementary information



Fig. 1: Please read!

Read the following supplementary information in its entirety! You will benefit more from using the operating instructions should you already know this information.

The following are highlighted separately in the document:

- Enumerated lists

→ Instructions

⇨ Outcome of the instructions

Information

This provides important information relating to the correct operation of the unit or is intended to make your work easier.

Safety information

Safety information is identified by pictograms - see Safety Chapter.

Stating the part number and serial number

Please state the part number and serial number, which you can find on the nameplate, when you contact us or order spare parts. This enables us to clearly identify the unit type and material versions.

Table of contents

1 Product Identification 5
2 About This Product 6
3 Safety Chapter 7
4 Storage, Transport and Unpacking 10
5 Overview of Equipment and Control Elements 15
5.1 Overview of Equipment 15
5.2 Control Elements 16
5.2.1 Stroke Length Adjustment Button 16
5.2.2 Multifunctional Switch 16
5.2.3 Functional and Fault Indicators 16
6 Functional Description 17
7 Requirements Relating to the Installation Site 18
8 Assembly 19
9 Hydraulic Installation 23
10 Installation, Electrical 29
11 Start Up 30
12 Maintenance 32
13 Clearing Faults (Authorised Company Only) 37
14 Decommissioning and Disposal 38
14.1 Decommissioning 38
14.2 Disposal 38
15 Technical data 39
15.1 Performance data 39
15.2 Material Specifications 40
15.3 Electrical Data 40
15.4 Temperatures 41
15.5 Climate 41
15.6 Degree of Protection and Safety Requirements 41
15.7 Weight 42
15.8 Sound pressure level 42
16 Ordering Information 43
17 Dimensional Drawing 44
18 EC Declaration of Conformity for Machinery 45

Table of contents

19 Decontamination declaration 46
20 Log book 47
21 Index 48

1 Product Identification

Type "R" Compact metering system

Size	Order no.
NG 5	1036414
NG 10	1036416
NG 20	1036418
NG 30	1038104

Type "W" Split system

Size	Order no.
NG 5	1036415
NG 10	1036417
NG 20	1036419
NG 30	1038105

2 About This Product

Promatik® NG metering systems with DVGW certification protect pipework, fittings, and devices, such as boilers, washing machines and dishwashers, from corrosion and lime scale. Polyphosphates or polyphosphate/silicate phosphate mixtures are metered for this purpose, which help to protect appliances and pipework.

The metering system is approved for use in potable water lines for the metering of phosphate solutions EXACTAPHOS® P 612 and P 1020 and the silicate phosphate solution EXACTAPHOS® SP 210.

There are 2 designs available:

Design "R", Compact metering system

The metering pump sits directly on the contact water meter on the Compact metering system.

Design "W", Split system

The metering pump is fixed on a wall bracket on a wall separate from the contact water meter on the split system.

3 Safety Chapter

Identification of safety notes

The following signal words are used in these operating instructions to denote different severities of danger:

Signal word	Meaning
WARNING	Denotes a possibly dangerous situation. If this is disregarded, you are in a life-threatening situation and this can result in serious injuries.
CAUTION	Denotes a possibly dangerous situation. If this is disregarded, it could result in slight or minor injuries or material damage.

Warning symbols denoting different types of danger

The following warning symbols are used in these operating instructions to denote different types of danger:

Warning symbol	Type of hazard
	Warning of a hazardous area.
	Warning of hazardous electrical voltage.

Intended use

- The proportional flow dosing system Promatik® NG is approved for use in potable water lines for the metering of phosphate solutions EXACTAPHOS® P 612 and P 1020 and the silicate phosphate solutions EXACTAPHOS® SP 210.
- Only use the proportional flow dosing system Promatik® NG after it has been correctly installed and started up in accordance with the technical data and specifications contained in the operating instructions.
- All other uses or modifications are prohibited.
- Only operate the proportional flow dosing system Promatik® NG if all components have been assembled and installed in accordance with the technical documentation and the corresponding specifications.
- Only allow trained and authorised personnel to operate the proportional flow dosing system Promatik® NG - refer also to the table below.
- You have an obligation to observe the information contained in the operating instructions at the different phases of the unit's service life.

Qualification of personnel

Task	Qualification
Storage, transport, unpacking	Qualified personnel
Assembly, installation of the hydraulic system	Qualified personnel
Installation, electrical	Qualified personnel
Start up	Qualified personnel
Operation	Instructed person
Inspection	Instructed person

Task	Qualification
Maintenance	Qualified personnel
Repairs	Qualified personnel
Decommissioning, disposal	Qualified personnel
Troubleshooting	Qualified personnel, electrical technician - depending on the fault

Qualified personnel

Qualified personnel are deemed to be people who are able to assess the tasks assigned to them and recognise possible dangers based on their technical training, knowledge and experience, as well as knowledge of pertinent regulations.

Electrical technician

An electrical technician is able to complete work on electrical systems and recognise and avoid possible dangers independently based on his/her technical training and experience, as well as knowledge of pertinent standards and regulations. The electrical technician should be specifically trained for the working environment in which he is employed and know the relevant standards and regulations. An electrical technician must comply with the provisions of the applicable statutory directives on accident prevention.

Instructed person

An instructed person is deemed to be a person who has been instructed and, if required, trained in the tasks assigned to him/her and possible dangers that could result from improper behaviour, as well as having been instructed in the required protective equipment and protective measures.

Hygienic regulations

During maintenance work that requires the system to be dismantled, make sure that you handle any parts that come into contact with potable water with consideration of the hygienic aspects to avoid contamination of the system. Preferably use disposable gloves to avoid contamination of the system parts by the person themselves. Clean and disinfect before use any tools that come into contact with wetted parts in line with the instructions.

Routine maintenance and prompt replacement of wear parts is essential for the systems.

Regular use is just as important. Long periods of idleness can lead to organoleptic deterioration of the water being treated; for this reason, as with all potable water supplies, flush the system through prior to re-use if it has been out of service for a period of several weeks or longer.

Replace empty disposable containers and never refill them. Danger of contamination.

Safety information

CAUTION!

Warning against illegal operation

Observe the regulations that apply where the device is installed.

CAUTION!

The operator is responsible for adapting the operating instructions to his system in the event that more recent knowledge about the dangers associated with the operating chemicals and their avoidance becomes available, or national regulations prescribe something other than that stated in the operating instructions supplied.

Use the latest material safety data sheet for phosphate solutions EXACTAPHOS® P 612, EXACTAPHOS® P 1020 or the silicate-phosphate solution EXACTAPHOS® SP 210 manufactured by www.prominent.com from the "Material safety data sheets" area; search for "P612" or "P1020" and/or "SP210".

Personal protective equipment

When handling the EXACTAPHOS® solution wear:

- Safety goggles
- Protective gloves

Information in the event of an emergency

Remove the mains plug or press an emergency stop button, if fitted, in the event of an emergency!

If feed chemical escapes, also ensure that the pump's hydraulic environment is at atmospheric pressure. Read the material safety data sheet for the EXACTAPHOS® solution.

First aid in the event of skin contact with the EXACTAPHOS® solution:

Change contaminated clothing. Immediately rinse off if the chemical touches your skin.

First aid in the event of the EXACTAPHOS® solution coming into contact with the eyes:

Holding the lid open, rinse the eyes for a minimum of 5 minutes should the product enter the eyes. Then seek medical assistance.

Take the material safety data sheet with you to the medical practitioner.

First aid in the event of swallowing the EXACTAPHOS® solution:

Drink plenty of water in small sips (dilution effect).

Sound pressure level

Sound pressure level LpA < 70 dB according to EN ISO 20361

at maximum stroke length, maximum stroke rate, maximum back pressure (water)

4 Storage, Transport and Unpacking

Safety information

WARNING!

Only return metering pumps for repair in a cleaned state and with a flushed liquid end - refer to "Decommissioning!

Only return metering pumps with a completed Decontamination Declaration form. The Decontamination Declaration constitutes an integral part of an inspection / repair order. A unit can only be inspected or repaired when a Declaration of Decontamination Form is submitted that has been completed correctly and in full by an authorised and qualified person on behalf of the pump operator.

The "Decontamination Declaration Form" can be found on our homepage.

NOTICE!

Danger of material damage

The device can be damaged by incorrect or improper storage or transportation!

- The device should only be stored or transported in a well packaged state - preferably in its original packaging.
- The packaged unit should also only be stored or transported in accordance with the stipulated storage conditions.
- The packaged unit should be protected from moisture and the ingress of chemicals.

The stricter storage conditions for this chemical apply if the liquid end of the Promatik® NG is filled with EXACTAPHOS®.

Personnel:

- Technical personnel

Ambient conditions for the unit

Data	Value	Unit
Storage and transport temperature	-10 ... +45	°C
Maximum air humidity*	95	% relative humidity

* non-condensing

Other information: Avoid direct sunlight.

Ambient conditions for the EXACTAPHOS®

Data	Value	Unit
Storage and transport temperature	+5 ... +30	°C *

* frost-free!

Other information: Avoid direct sunlight.

Scope of delivery

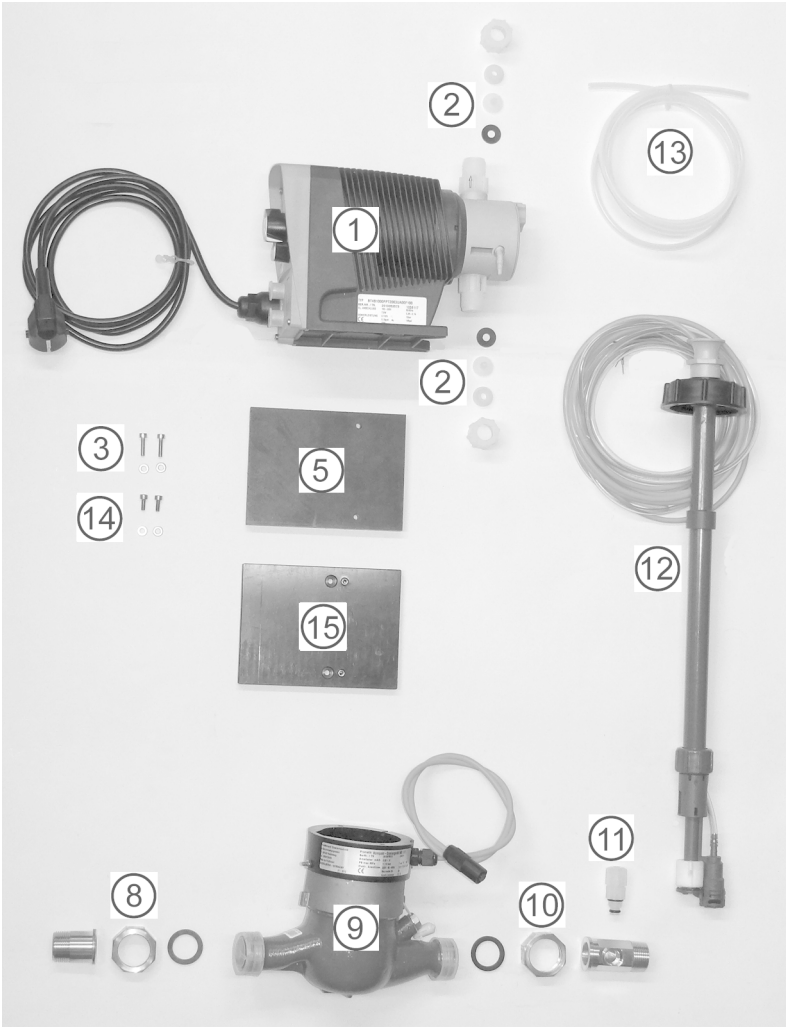


Fig. 2: Scope of delivery of type "R" Compact

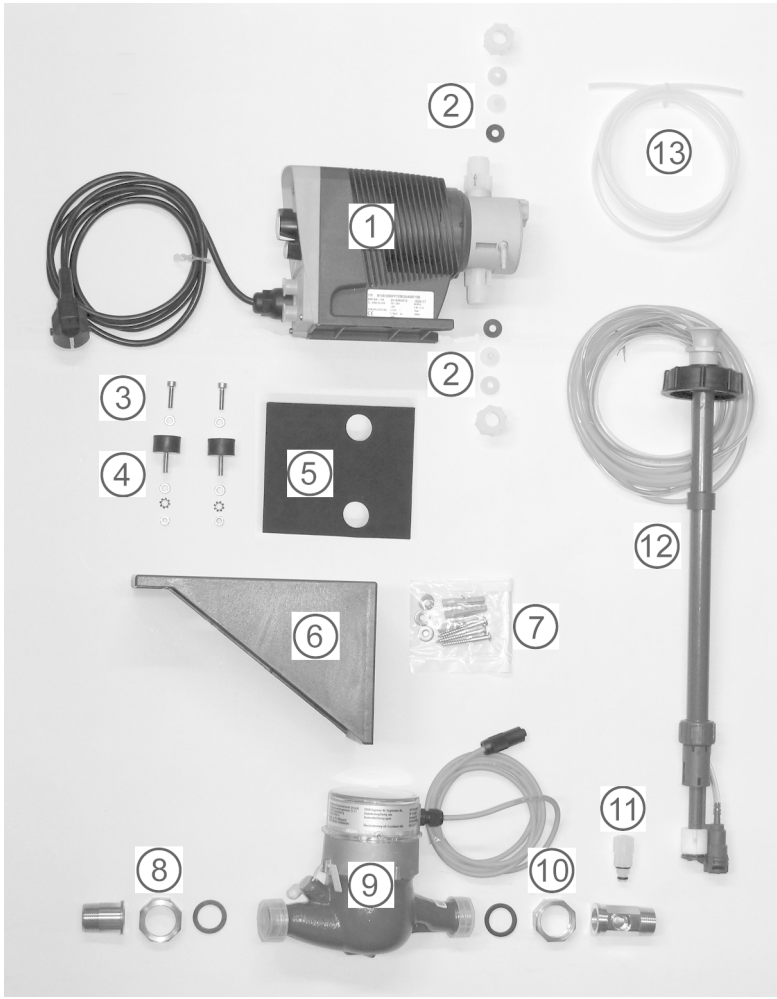


Fig. 3: Scope of delivery of type "R" Split system

Compare this list with the scope of delivery (refer to previous figures for item no.):

1	-	Metering pump with mains cable	4	-	"W" design: damper with fittings
2	-	Hose connector kit	5	-	Damper plate
3	-	Metering pump fittings	6	-	"W" design: wall bracket

7	-	"W" design: wall bracket fittings
8	-	Threaded connector without injection valve connector
9	-	Contact water meter
10	-	Threaded connector with injection valve connector
11	-	Injection valve
12	-	Suction lance with foot valve and level switch
13	-	Metering line
14	-	"R" design: mounting plate fittings
15	-	"R" design: mounting plate
not shown	-	Operating instructions with EC Declaration of Conformity

5 Overview of Equipment and Control Elements

5.1 Overview of Equipment

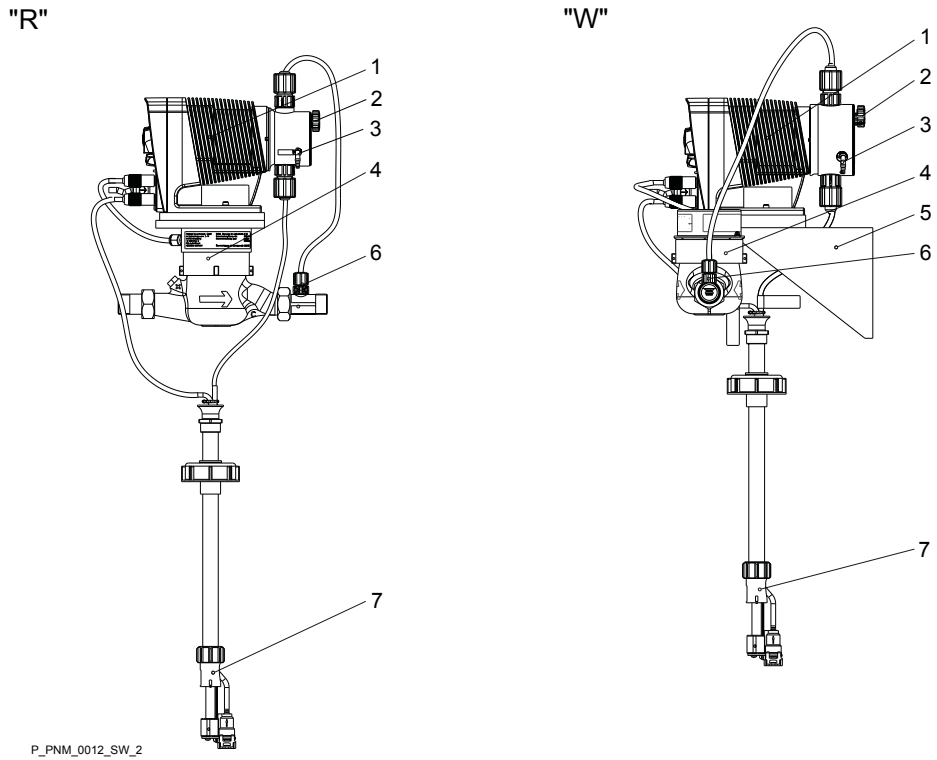


Fig. 4: Type "R" Compact metering system and type "W" Split system

1 Metering pump
2 Bleed valve
3 Bypass hose sleeve
4 Contact water meter
5 Wall bracket
6 Injection valve
7 Suction lance with level switch

5.2 Control Elements

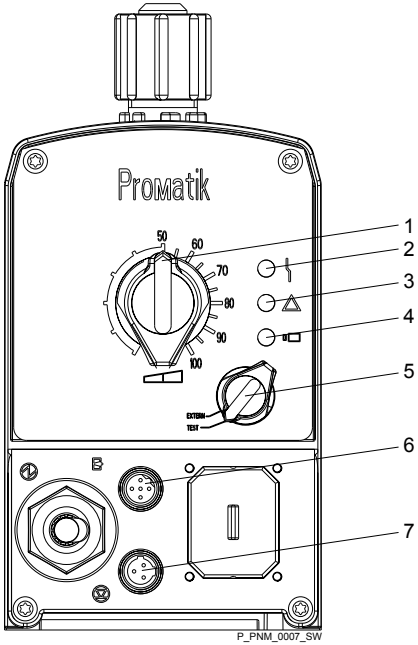


Fig. 5: Control Elements

1 Stroke length adjustment button
2 Fault indicator (red)
3 Warning indicator (yellow)
4 Operating indicator (green)
5 Multifunctional switch
6 "External control" terminal
7 "Level switch" terminal

5.2.1 Stroke Length Adjustment Button

The stroke length adjustment button can be used to adjust the stroke length.

5.2.2 Multifunctional Switch

The multifunctional switch can be used to prime in the "Test" position.

The multifunctional switch automatically switches back to the "External" position - for automatic control by the contact water meter.

5.2.3 Functional and Fault Indicators

Fault indicator (red)

The fault indicator lights up if the fluid level in the dosing tank falls below the second switching point of the level switch (20 mm residual filling level in the dosing tank).

This LED flashes in the event of a faulty unit.

Warning indicator (yellow)

The warning indicator lights up if the fluid level in the dosing tank falls below the first switching point of the level switch.

Operating indicator (green)

The operating indicator lights up if the pump is ready for operation and there are no fault or warning alerts. It goes out quickly as soon as the pump has performed a stroke.

6 Functional Description

The flowing water moves the impeller in the water meter, which detects the revolutions, reduces them and transmits them as pulses to the External input of the metering pump. Guided by the contact water meter, the metering pump carries out one metering stroke or several metering strokes in tandem, causing the selected volume of feed chemical to be precisely metered into the flow of water. The metered volume of feed chemical is thereby proportional to the flow volume.

The volume of feed chemical per metering stroke can be continuously set using the stroke adjustment dial (range of 50% ... 100%).

The metering pump draws the feed chemical by suction via a foot valve from the solution tank at atmospheric pressure and meters it into the flow of water through the injection valve upstream of the water meter.

The two-stage level switch can signal a lack of chemicals in the storage tank via the metering pump. If the supply is running low, the yellow LED lights up while the metering pump continues metering. The red LED lights up at minimum level and the pump stops.

7 Requirements Relating to the Installation Site

The intended installation site has to meet the requirements listed in the following check-list.

"Requirements relating to the installation site" check-list

Requirement	Fulfilled
Cleanliness	
Make sure that no rodents can enter	
Requisite ambient conditions met (temperature, humidity ...)	
Solution tank and metering pump can be protected from sunlight	
Nothing drips onto the unit - protected by a cover	
No water pipes above the unit - compensated for by a cover	
System protected from unauthorised access	
Socket available	
Contact water meter and metering pump can be installed in an upright and horizontal position	
"W" design only: Load-bearing wall	
"W" design only: Gap between "Metering pump - injection valve" of less than 2 m can be achieved	
Gap between "Metering pump - suction valve - base" (base of solution tank) of less than 1 m can be achieved	

8 Assembly

Type "R" Compact metering system

1. Fix the holding plate to the assembly ring using the two shorter Allen screws M4x10 - as in Fig. 6



Make sure that the perforated plate halves of the holding plate and the damper plate point toward the injection valve! (left plate half in Fig. Fig. 6)

2. Place the black damper plate flush on the mounting plate.

3. Place the metering pump on the damper plate and fix to the holding plate using the two longer Allen screws M4x16 (and washers!).

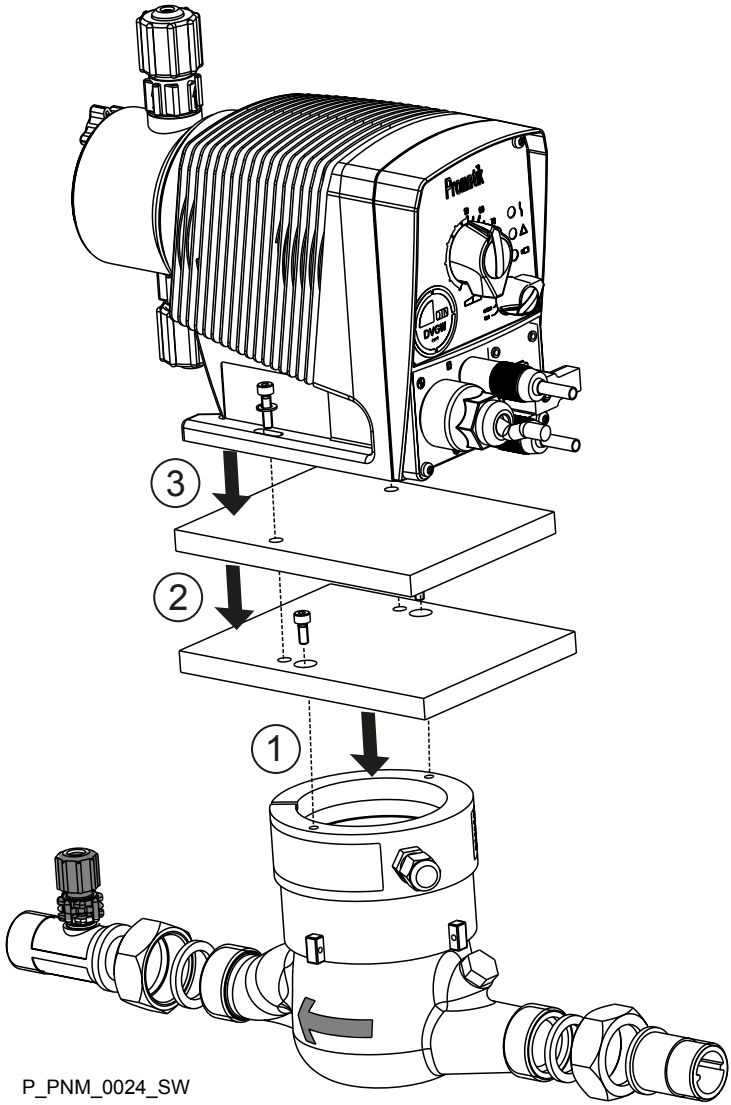


Fig. 6: Assembling type "R" Compact metering system

Type "W" Split system

1. Use the 3 wood screws (and washers!) to anchor the wall bracket to a wall - as in Fig. 7.
2. Screw the 2 cylindrical dampers to the wall bracket (sequence: washer, retainer, nut!)
3. Place the damper plate onto the two dampers.

> *Make sure that the perforated plate half of the damper plate points toward the wall! (left plate half in Fig. Fig. 7)*

4. Place the metering pump on the damper plate and fix to the two dampers using the 2 Allen screws (and washers!).

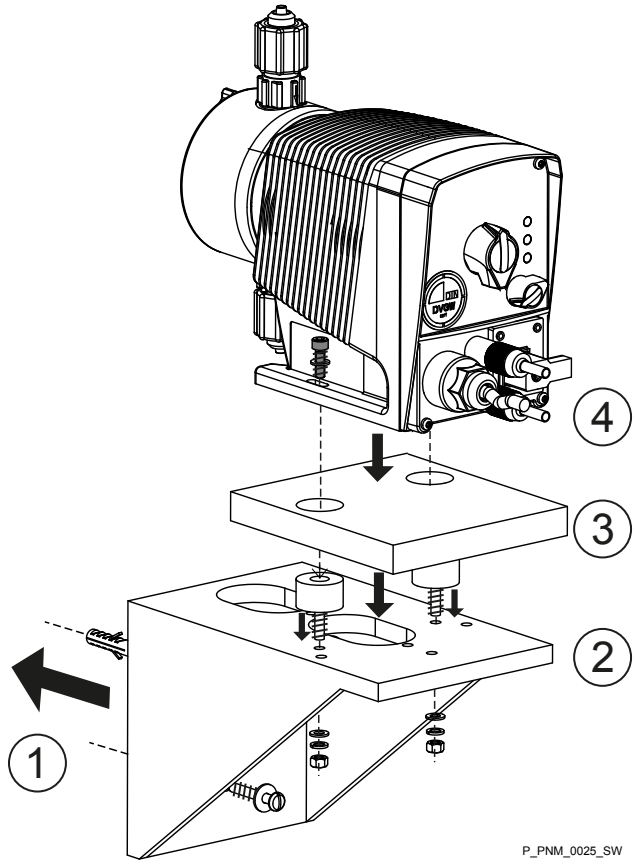


Fig. 7: Assembling type "W" Split system

9 Hydraulic Installation

Safety information

CAUTION!

Risk of personal injury

The potable water can become carcinogenic if the system is not handled in accordance with hygiene regulations.

– Observe the hygiene regulations in the "Safety chapter".

CAUTION!

Danger of injury to personnel and material damage

The use of untested third party components can result in injury to personnel and material damage.

A further consequence would be that the unit loses its DVGW certification.

– Only fit parts to the device that have been tested and recommended by ProMinent.

CAUTION!

Danger of injury to personnel and material damage

Disregarding applicable and recognised regulations and guidelines can lead to personal injuries and damage to property. Operation of the system can also be illegal.

– The installation must comply with the generally recognised codes of practice.
– Within Germany only: Comply with DIN 1988 and/or DIN EN 806.

CAUTION!

Feed chemical harmful to health can escape

If the hose lines are not professionally installed, they can become loose and feed chemical can escape.

– Only use clamp rings and hose nozzles that fit the respective hose diameter.
– Only use original hoses with the specified hose dimension and wall thickness.

Prerequisites

- Install the pump **upright and horizontally**.
- Install a **protective filter** into the main water line on all installations to protect the entire installation and connected equipment from dirt and corrosion from sand and rust that has flooded in.
- Install a **sampling tap** to allow you to check that the system is working properly if there is no water tap fitted upstream of the injection valve at a distance of 2 m (NG 5) and/or 5 m (NG 30).
- A **filled solution tank** is fitted.

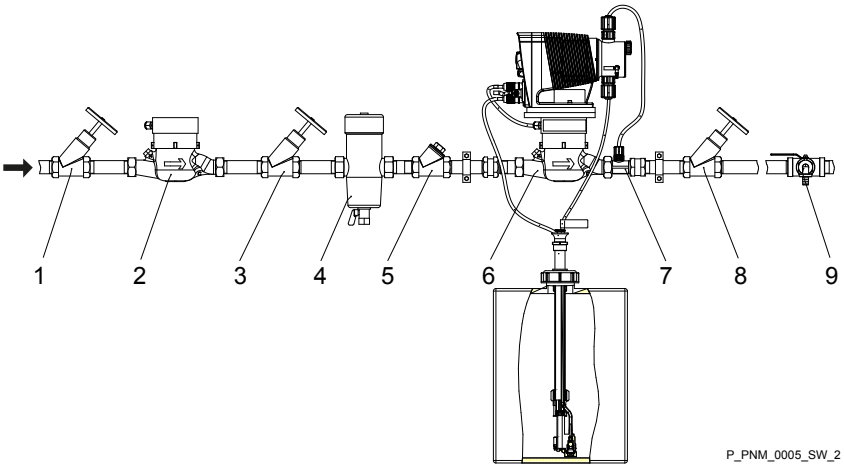


Fig. 8: Sample Promatik® NG installation

1 Shut-off valve
2 Water clock
3 Shut-off valve
4 Protective filter
5 Vacuum breaker (optional)
6 Promatik® NG
7 Injection valve
8 Shut-off valve
9 Sampling tap (optional)

Instructions

1. Carefully remove foreign bodies from the water pipe and the pipe section of the water meter.
2. Screw the two threaded connectors to the ends of the water meter.

Hydraulically position the threaded connector with the injection valve connector upstream of the water meter.

Install the threaded connector with the injection valve connector so that the injection valve connector still points upwards or to the side, but never downwards.

3.

Damage to the water meter and the domestic water installation is possible

Do not use force to pull together or enlarge too large or too small a pipe gap for the water meter in the domestic water installation.

– *Tailor the pipe gap precisely to the water meter.*

Possible damage to the domestic water installation

There can be damage to the pipes if the existing pipework cannot withstand the weight of the equipment.

– *Fix the pipework to the wall with pipe clamps.*

Install the water meter properly into the water line.

4. "W" design only: Fit the metering pump with the wall bracket to a suitable wall near the water meter.
5. Place the solution tank under the metering pump and remove the screw cap.
6. Place the suction lance vertically into the storage tank.

Make sure that the float of the level switch can move freely.

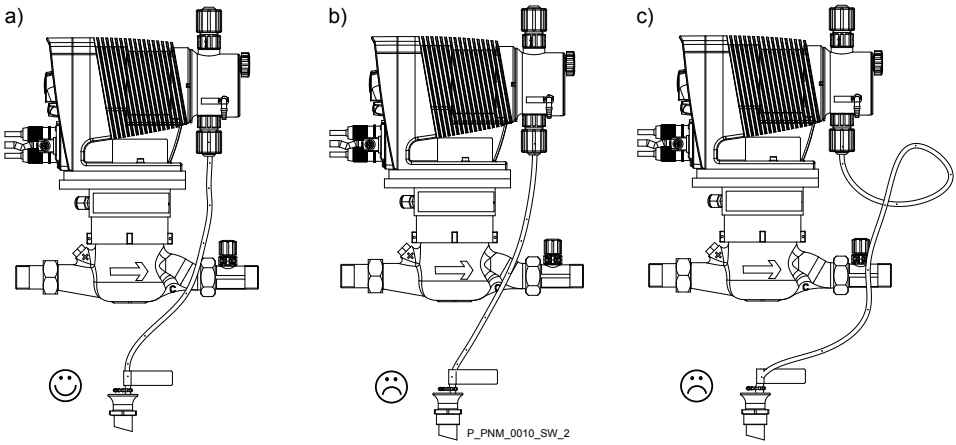


Fig. 9: Suction line: a) Correct length; b) Too tight; c) Looped

7.

Make sure that the hoses are free of tension and do not loop when installed.

Shorten the suction hose to the required length.

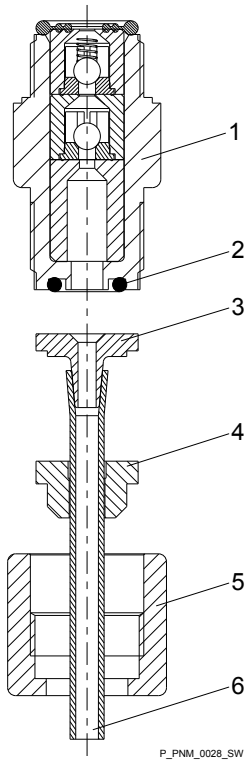


Fig. 10: Connect the hose correctly to the valve

1 Suction valve
2 O-ring
3 Nozzle
4 Clamp ring
5 Union nut
6 Suction hose

8. Connect the suction hose to the suction valve.

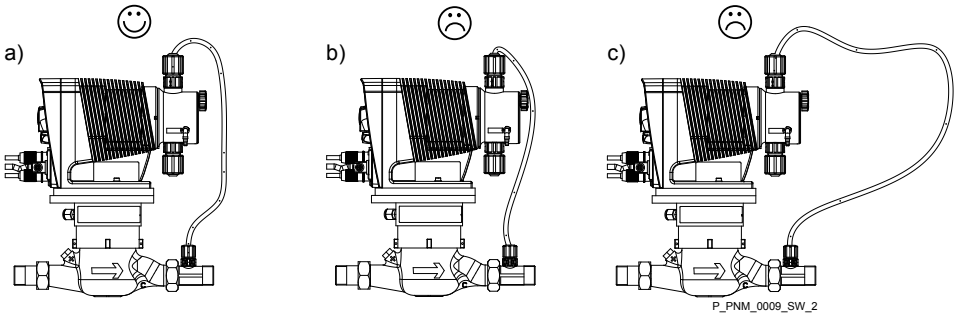


Fig. 11: Discharge line: a) Correct length; b) Too short; c) Looped

9. Shorten the discharge hose to the required length and connect it to the discharge valve.

Secure a long discharge line with cable connectors if necessary.

10. Screw the injection valve into the threaded connector of the water meter - maximum tightening torque 5 Nm.

11. Connect the discharge hose to the injection valve.

- *Check that the connection is sitting correctly.*
- *Keep the suction line as short as possible.*
- *Do not bend the hose line.*
- *Avoid loops in the hose line.*

10 Installation, Electrical

1. Insert the level switch plug into the "Level" socket ⊘ of the metering pump.
2. Connect the control cable of the water meter to the "External" socket ⇄ of the metering pump.
3. Do not insert the mains plug into the power socket yet - do so when starting up the unit.
4. Roll up and secure the excess cable length, using a cable connector if necessary.

11 Start Up

Safety information

WARNING!

Only start up the ProMatik® NG precisely in accordance with the operating instructions.

CAUTION!

Warning of feed chemical spraying around

Feed chemical can spray out of the hydraulic components if they are manipulated or opened due to pressure in the liquid end and adjacent parts of the system.

– Disconnect the pump from the mains power supply and ensure that it cannot be switched on again by unauthorised persons.
– Depressurise the system before commencing any work on hydraulic parts.

CAUTION!

Danger with dangerous feed chemicals

Provided the following handling instructions are followed, contact with the feed chemical is possible.

– If the feed chemical is dangerous, take appropriate safety precautions when carrying out the following handling instructions.
– Observe the feed chemical safety data sheet.

Starting up the unit

Materials required:

- Cup

1. Slowly open the shut-off valves on the water line upstream and downstream of the unit until the water meter is full.
2. Check that the installation is tight.
3. Insert the metering pump mains plug into the socket.

   ⇨ The green "Operation" LED lights up.
4. Set the stroke length to 100%.
5. Hold the cup under the bleed valve.
6. Turn the bleed valve on the dosing head.
7. Turn the multifunctional valve on the metering pump to "Test" - the metering pump operates at maximum stroke rate.
8. Hold the multifunctional valve in the "Test" position until the feed chemical escapes bubble-free from the bleed valve.
9. Close the bleed valve.
10. Turn the multifunctional valve again to "Test" until there is feed chemical pending at the injection valve.
11. Test: Remove approximately 20 litres of water at the next tapping point and simultaneously check whether the unit is metering.

    This simultaneously flushes through the installation.

Adjusting the concentration

When using for the first time:

1. Analyse the water after approx. 6 months.
2. If the result is good, reduce the stroke length to 70% on a trial basis.

> *The stroke length can be set within the range of 50 ... 100%.*
>
> *This corresponds to a concentration of 50 ... 165 ml/m³.*

3. Regularly monitor the water and adjust the stroke length if you need to.

In other cases:

1. Allow the unit to run until you are sure that there is treated water at the sampling tap.
2. Remove and analyse a sample from the sampling tap.
3. Adjust the stroke length of the metering pump if you need to.

Prior to handover for operation

1. Pass the log book to the customer (template in the appendix) along with the operating instructions with the address stamp of the authorised company in the "Maintenance" chapter. Insert both into the transparent pouch, which is hung close to the unit.
2. Show the customer how to replace a solution tank.
3. Show the customer what needs to be inspected on the system.

12 Maintenance

CAUTION!

Risk of personal injury

There is a risk of personal injury if the system is not regularly maintained in line with these operating instructions.

- It is the duty of the customer to ensure that the system is regularly inspected in accordance with the following inspection schedule.
- It is the responsibility of the customer to ensure that the authorised company regularly maintains the system in accordance with these operating instructions.

This inspection schedule can be used by an instructed person as a check-list for regular inspections:

Regular, preferably daily

Inspection work (instructed personnel)	OK
Check whether the solution is also being consumed - place your hand for a short while on the discharge line to feel whether a pressure pulse occurs now and then. Alternatively, use a felt-tip pen to mark the current liquid level at the inspection window of the solution tank.	
Check for leaks.	
Check whether the solution is running out - as signalled by the yellow or red LED on the metering pump. Replace the solution tank if this is the case - see *further information on page 32*. Enter the replacement of the solution tank in the log book with the date and signature.	

CAUTION!

Risk of personal injury

There is a risk of personal injury if something unusual occurs or the system is clearly not metering.

- Immediately call ProMinent Service.

CAUTION!

Danger of injury to personnel and material damage

Aged metering solution can cause injuries to personnel and material damage.

– Replace the metering solution with new solution once the expiry date on the solution tank has passed.

Replacing the solution container

Personal protective equipment:

- in accordance with the material safety data sheet for the solution

1. Disconnect the mains supply.
2. Place the new solution container underneath the metering pump and open it.

Check the expiry date on the solution tank.

3. Carefully remove the suction lance vertically from the old solution container, insert it into the new one and screw in place.
4. Insert the mains plug into the socket.
5. Switch on a water consumer, e.g. open a sampling tap (to collect the water).
6. Turn the multifunctional switch to "Test" and hold it there.

   ⇨ The metering pump draws in liquid.

7. Release the multifunctional switch as soon as there are no more air bubbles in the suction line.
8. Bleed the suction line and the liquid end if the air bubbles do not disappear - refer to the "Start Up" chapter.
9. As a functional test - while water is being consumed - check whether the metering pump is performing strokes in accordance with the incoming contacts and reduction. Allow a little water to escape at the next water tap or sampling tap if no water is being consumed.
10. Properly dispose of the old solution container:

Dispose of the solution tank in accordance with the information in chapter 13 of the material safety data sheet. The material safety data sheet can be downloaded at www.prominent.com; search for "P612" or "SP210".

Address stamp of the authorised company



Only for the authorised company

It is the duty of the authorised company to enter every maintenance and repair in the log book.

The following maintenance schedule can be used by the authorised company as a check-list for regular maintenance work:

Quarterly*

Liquid end

Maintenance work	OK
Check the diaphragm for damage.	
Check that the hydraulic lines are fixed firmly to the liquid end and the injection valve.	
Check that the suction valve and discharge valve are fitted tightly.	
Check that the entire liquid end is leak-tight - particularly around the leakage hole - refer to Fig. 12.	
Check that the flow is correct: Allow the pump to prime for a short time - briefly turn the multifunctional switch to "Test".	
Check that the electrical connections are intact.	
Check the integrity of the housing.	
Check that the dosing head screws are tight.	
Check that the bypass line is fixed firmly to the liquid end.	
Check that the bleed valve is tight.	
Check the discharge and bypass line for kinks.	
Check that the bleed valve is operating correctly.	

* Under normal loading (approx. 30% of continuous operation).

Under heavy loading (e.g. continuous operation): Shorter intervals.

Tightening torques

Data	Value	Unit
Tightening torques for dosing head screws:	4.5 ... 5.0	Nm

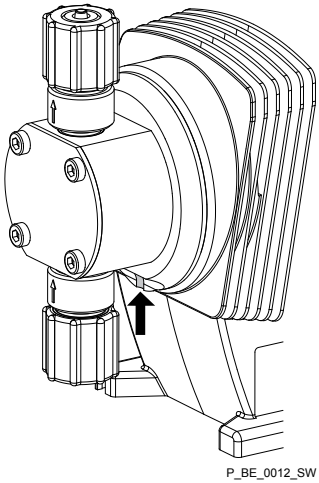


Fig. 12: The leakage hole

13 Clearing Faults (Authorised Company Only)

Fault description	Cause	Remedy	Personnel
The unit does not meter although the green LED is lit (but does not briefly go out), the red LED does not light up and water flows.	A foreign body is blocking the contact water meter.	Remove the foreign body from the contact water meter. Eliminate the cause.	Technical personnel
	The contact water meter contact output is faulty.	Repair the contact water meter contact output.	Electrician
	The contact cable has no contact.	Rectify the cause.	Electrician
The feed chemical is not consumed, although the metering pump is working - the green LED briefly goes out when water flows.	There is air in the suction line or liquid end.	Bleeding - see the "Start up" chapter.	Technical personnel
The metering pump does not draw in liquid.	The valves are dried out or somewhat blocked.	■ Lower the priming lift by raising the solution tank until the metering pump draws in liquid. ■ If unsuccessful: Open the bleed valve on the liquid end (by turning the star handle approx. 1 revolution to the left). Then lift the suction lance and insert it several times into the feed chemical until feed chemical escapes from the side bleed nozzle with each insertion. ■ If unsuccessful: Dismantle and clean the discharge and suction valve. Note the stroke length. Re-set the original stroke length again after bleeding at maximum stroke length.	Technical personnel

14 Decommissioning and Disposal

14.1 Decommissioning

Temporary

It is not necessary to switch off the device if it is decommissioned for a short time (e.g. holiday).

Final

CAUTION!

Risk of personal injury

The potable water can become carcinogenic if the system is not handled in accordance with hygiene regulations.

– Observe the hygiene regulations in the "Safety chapter".

1. Properly de-install the unit.
2. Properly de-install the solution tank.
3. Inform the authorised company.

14.2 Disposal

Dispose of the solution tank in accordance with the information in chapter 13 of the material safety data sheet. The material safety data sheet can be downloaded at www.prominent.com; search for "P612" or "SP210".

15 Technical data

15.1 Performance data

Promatik® NG

Size	Unit	NG 5	NG 10	NG 20	NG 30
Nominal flow Q_N	m^3/h	2.5	6	10	15
Upper operating limit	m^3/h	5	11	16	27
Meter connector thread (external) (DIN ISO 228-G)	Inch	G 1 B	G 1 1/4 B	G 2 B	G 2 1/2 B
Nominal size DN	mm	20	25	40	50
Construction length without threaded connector	mm	190	260	300	270
Construction length with threaded connector. approx.	mm	240	320	370	330
Lower operating limit	m^3/h	0.05	0.08	0.13	0.24
Capacity 50 ... 100%	ml/m^3	50 ... 165	50 ... 165	50 ... 165	50 ... 165
Max. operating pressure of the Promatik® NG	bar	10	10	10	10
Operating pressure of the Promatik® NG	bar	1	1	1	1
Pressure loss at the upper operating limit	bar	0.75	0.75	0.75	0.75
Pulse interval K of the water meter	l	0.5	1	2	2
Reduction factor	-	1:0.75	1:1.026	1:1.1	1:0.71
Metering interval of the Promatik® NG	l	0.66	1.05	1.82	2.82
Metering pump	-	BT4b1000	BT4b1601	BT4b1602	BT4b1604

15.2 Material Specifications

Component	Material
Dosing head	PP
Valves	PP
Seals, O-rings, ball seats	EPDM
Diaphragm	EPDM with PTFE coating
Valve balls	Ceramic
Suction lance	PP, EPDM
Suction line	Soft PVC
Metering line	PE
Contact water meter housing	Brass
Contact water meter threaded connectors	Brass
Threaded connector seal	EPDM
Injection valve	PP
Injection valve seal	EPDM

15.3 Electrical Data

Design: 100 - 230 V ±10%, 50/60 Hz

Specification	Unit	NG 5	NG 10	NG 20	NG 30
Current strength I eff	A	0.25 ... 0.1	0.35 ... 0.15	0.35 ... 0.2	0.65 ... 0.25
Switch on peak current (falling within 1 ms)	A	15	15	15	15
Power consumption	W	7.6	8.3	12.2	16.5
Fuse *	-	0.8 AT	0.8 AT	0.8 AT	0.8 AT

* Fuses must have VDE, UL and CSA certification. E.G. type 19195 manufactured by Wickmann in compliance with IEC Publ. 127 - 2/3.

15.4 Temperatures

Unit temperatures

Data	Value	Unit
Storage and transport temperature:	-10 ... +45	°C
Ambient temperature during operation:	+5 ... +30	°C
Water temperature:	+1 ... +30	°C

Temperatures for the EXACTAPHOS®

Data	Value	Unit
Storage and transport temperature	+5 ... +30	°C *

* frost-free!

15.5 Climate

Data	Value	Unit
Maximum air humidity*:	95	% relative humidity

* non-condensing

Exposure in a humid and changing climate:

According to DIN EN 60068-2-38



Fit a protective cover over the unit if there is a chance that water could drip onto it (possibly from a water pipe above).

15.6 Degree of Protection and Safety Requirements

Degree of protection

Protection against accidental contact and humidity:

IP 63 according to DIN EN 60529

Safety requirements

Degree of protection:

1 - mains power connection with protective earth conductor

15.7 Weight

Type	Weight
	kg
NG 5	5.3
NG 10	6.3
NG 20	8.6
NG 30	10.2

15.8 Sound pressure level

Sound pressure level

The sound pressure level is < 70 dB (A)

at a maximum stroke length, maximum stroke rate, maximum back pressure (water) according to:

DIN EN ISO 3743

16 Ordering Information

Solution canisters of EXACTAPHOS®

Metering solution	Quantity	Order no.
EXACTAPHOS® P 612	20 l	950098
EXACTAPHOS® P 1020	20 l	950099
EXACTAPHOS® SP 210	20 l	950097

Spare parts

Spare part	NG 5	NG 10	NG 20	NG 30
Metering pump	1048286	1048287	1048288	1048289
Contact water meter	1037111	1037112	1037113	1038012
Injection valve	1037466	1037466	1037991	1037991
Metering hose 6x4	37205	37205	37205	37205
Suction lance	802277	802277	802277	802277

17 Dimensional Drawing

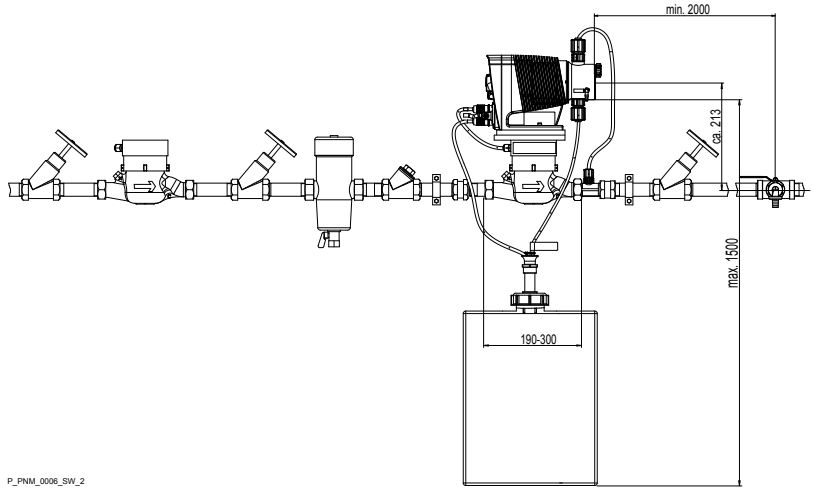


Fig. 13: Dimensional drawing of the Promatik® NG - dimensions in mm

18 EC Declaration of Conformity for Machinery

In accordance with DIRECTIVE 2006/42/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL, Appendix I, BASIC HEALTH AND SAFETY REQUIREMENTS, section 1.7.4.2. C.

We,

- ProMinent GmbH
- Im Schuhmachergewann 5 - 11
- D - 69123 Heidelberg,

hereby declare that the product specified in the following, complies with the relevant basic health and safety requirements of the EC Directive, on the basis of its functional concept and design and in the version distributed by us.

Any modification to the product not approved by us will invalidate this declaration.

Extract from the EC Declaration of Conformity

Designation of the product:	Proportional flow dosing system, Promatik product range
Product type:	Promatik NG 5R, NG 10R, NG 20R, NG 30R Promatik NG 5W, NG 10W, NG 20W, NG 30W
Serial number:	see nameplate on the device
Relevant EC directives:	EC Machinery Directive (2006/42/EC) EC EMC Directive (2004/108/EC) Compliance with the protection targets of the Low Voltage Directive 2006/95/EC according to Appendix I, No. 1.5.1 of the Machinery Directive 2006/42/EC
Harmonised standards applied, in particular:	EN ISO 12100, EN 809 EN 61010-1 EN 61000-6-2/3 EN 14812
DVGW registration number:	NW-9101CM0179
Date:	13.02.2014

You will find the EC Declaration of Conformity to download on our homepage.

19 Decontamination declaration

Declaration of Decontamination

(see download: www.prominent.com)

Because of legal regulations and for the safety of our employees and operation equipment, we need the „declaration of decontamination", with your signature, before your order can be handled.
Please make absolutely sure to include it with the shipping documents, or – even better – attach it to the outside of the packaging.

Please return your products to:	

Type of instrument / sensor: _____ **Serial number:** _____
Gerätetyp: Seriennummer:

Process data: Temperature: _____ [°C] Pressure: _____ [bar]
Prozessdaten: Temperatur: Druck:

Mediums and warnings:
Warnhinweise zum Medium:



	Medium/ Concentration Medium/ Konzentration	**Identification** CAS No.	**flammable** entzündlich	**toxic** giftig	**corrosive** ätzend	**harmful/ irritant** gesundheitsschädlich/reizend	**other*** sonstiges*	**harmless** unbedenklich
Process medium Medium im Prozess								
Medium for process-cleaning Medium zur Prozessreinigung								
Returned part cleaned with Medium zur Endreinigung								

* explosive; oxidising; dangerous for the environment; biological risk; radioactive
* explosiv; brandfördernd; umweltgefährlich; biogefährlich; radioaktiv

Please tick should one of the above be applicable, include security sheet and, if necessary, special handling instructions.

Reason for return:

Company data:

Company:	_____	Phone number:	_____
Contact person:	_____	Fax:	_____
Street:	_____	E-Mail:	_____
Address:	_____	Your order No:	_____

"We hereby certify that the returned parts have been carefully cleaned. To the best of our knowledge they are free from any residues in dangerous quantities."

_____ _____
Place, date Company stamp and legally binding signature

20 Log book

Work (canister replacement, maintenance, repairs)	Date	Signature

Use this sheet as a template.

Retain the sheets in the transparent pouch close to the unit.

21 Index

1, 2, 3 ...

"R" design 6
"W" design 6

A

About This Product 6
Adjusting the concentration 30
Applied harmonised standards 45
Assembly 19, 21

B

Bleeding 30

C

Check-list 32, 35
Clearing Faults (Authorised Company Only) 37
Climate 41
Compact metering system 6
Control Elements 16

D

Declaration of Decontamination 10
Decommissioning 38
Decontamination declaration 46
Degree of protection 41
Designation of the product 45
Dimensional Drawing 44
Disposal 38

E

Electrical Data 40
Emergency 9
External contact 16

F

Fault indicator (red) 16
Functional Description 17

H

Hydraulic installation 23
Hygienic regulations 8

I

Identification of safety notes 7
Information in the event of an emergency . . . 9
Installation site 18
Installation, Electrical 29
Installation, hydraulic 23
Intended use 7
IP 41

L

Leakage hole 35
Length 39
Level switch 16
Log book 32, 34, 47

M

Maintenance 32
Material Specifications 40
Metering interval 39
Multifunctional Switch 16

N

Nominal size 39

O

Operating indicator (green) 16
Ordering Information 43
Overview of Equipment 15

P

Performance data 39
Personal protective equipment 9
Pressure 39
Pressure loss 39
Priming function 16
Product Identification 5
Protection against contact and humidity . . . 41
Protection class 41
Protective equipment 9
Protective filter 24
Pulse factor 39

Q

Qualification of personnel 7

R

Relevant EC directives 45
Requirements Relating to the Installation Site 18

S

Safety Chapter 7
Safety declaration form 10
Safety requirements 41
Sampling tap 24
Scope of delivery 12
Serial number 45
Sound pressure level 9, 42
Spare parts 43
Split system 6
Start Up 30
Storage 10
Stroke Length Adjustment Button 16

T

Technical data 39
Temperatures 41
Test (function) 16
Transparent pouch 47
Transport 10

U

Unpacking 10

V

Vacuum breaker 24

W

Warning indicator (yellow) 16
Warning symbol 7
Weight 42
Working limit 39



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