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PNEUMATIC SEEDERS FERTILISER EDITION

The non-corrosive fertiliser experts



FROM USER TO ENTREPRENEUR



For Jürgen Schöls it was clear from the beginning that his heart beats for agriculture. He took over his parents' farm and he is still managing it today. As a farmer and DIYer, he developed his Single Disc Spreader further in 1997. He realised that his optimisation has potential and founded APV – Technische Produkte GmbH.

The young entrepreneur made the first APV machines himself. Today, he employs more than 100 people. The entire company works according to the motto: EVERYTHING IS POSSIBLE! Keep giving, and good things will come your way! The dynamic enterprise questions everything, does not take anything as a given, and optimises already existing good things.

"Every modern farmer uses APV technology on the farm".

Vision of the Managing Director



MORE INFO ONLINE

Imprint

APV - Technische Produkte GmbH, Geschäftsführer: Ing. Jürgen Schöls, Dallein 15, 3753 Hötzelsdorf, Österreich, marketing@apv.at, www.apv.at, UID: ATU 5067 1107

Photos: Factory photos (© APV) Concept & text: Liane Wöchtl, M.A. (Mash Marketing Sharing eU), Ing. Christian Karrer Graphics: Jürgen Undeutsch, M.A. (Undeutsch Media eU), Sonja Exl Our entire range of products is available at **www.apv.at/en**.

Take advantage of the individual consultation with our sales team.

PNEUMATIC SEEDERS FERTILISER EDITION

YOUR INDIVIDUAL APV SOLUTION

With the PS Fertiliser Edition from APV you have the possibility to customise your professional implement according to your needs. A large selection of hopper sizes, seeding shafts and types of fans allow us to offer you a customised solution for every need and budget.







PRECISE METERING WITH EXCELLENT LATERAL DISTRIBUTION

The precise spreading of seeds, fertiliser and plant protection granules helps you obtain excellent yield. With the Pneumatic Seeders of the fertiliser edition from APV you apply your spreading material efficiently and in an environmentally friendly manner.

APV helps you efficiently use your equipment, because:

• Fewer crossings through the combined use of the seeder on a soil tilling implement or a seed drill means your work duration, the device wear, as well as the soil compaction are reduced and you save fuel.

THE RIGHT DEVICE FOR EVERY PROFESSIONAL

All versions of the PS Fertiliser Edition from APV are characterised by:

- The entire seeder is airtight and non-corrosive: All powder-coated parts are protected with a non-corrosive CDP coating (standard in the car industry).
- All standard parts, the agitator and the brush adjustment are made of stainless steel.
- Precise metering and exact lateral distribution across the entire working width.
- Universal mounting options on almost all implements, such as for example seed drills, single grain machines, culture maintenance implements, soil tillage implements or combine harvesters - irrespective of manufacturer.
- Easy adjustment & comfortable calibration test.

PS 120 M1 D / PS 200 M1 D / PS 300 M1 D

THE NON-CORROSIVE "LITTLE ONES"

The PS 120, 200, and 300 M1 D are professional seeders to be used in small and medium enterprises. They differ from each other by hopper size.

1 TECHNICAL DATA

r _M	Working width	1 - 6 m with electric double fan, 8 outlets 1 - 7 m with hydraulic fan, 8 outlets 1 - 12 m with hydraulic fan, 16 outlets ¹
я ^к	Dimensions	H 90 cm, W 60 cm, D 80 cm (PS 120 M1) H 100 cm, W 70 cm, D 90 cm (PS 200 M1) H 110 cm, W 80 cm, D 100 cm (PS 300 M1)
1	Seed hopper	120 I / 200 I / 300 I plastic hopper 45 kg / - (PS 120 M1) 60 kg / 83 kg (PS 200 M1)

Max. required pressure: 180 bar Max. required oil quantity: 381/min

When equipped with hydraulic fan 1 single-acting control unit (coupling size BG 3) + 1 pressureless return flow (coupling size BG 4) required.

✓ ITEMS INCLUDED

- Optionally with Control Box 1.2, 3.2, 5.2 or 6.2² (different price category)
- Complete non-corrosive seeder with hoses (25 m)
- Seeding shaft for fine seed, seeding shaft for coarse seed
- Agitator made of stainless steel
- 6 m cable from seeder to control box
- Non-corrosive calibration slide, calibration bag, counter plate (galvanised), seed scale
- Fan pressure monitoring³ for hydraulic fan
- 8 stainless steel dispersion plates
 & 4 galvanised hexagonal bars
 (for dispersion plate mounting)



⊕ YOU

YOUR BENEFITS

PS 120 M1 D AND PS 200 M1 D

- Due to the compact size, ideal for implements with restricted space (e.g. foldable implements)
- There is little weight on the soil tillage implement and on the seed drill

PS 300 M1 D

- Comfortable operation also in the case of larger spread rates
- Saves time, because refilling is not necessary as often



⊕ B F

BENEFITS OF ALL APV FERTILISER PS

- Possibility to spread fertiliser, micro granules, pesticides and catch crops
- All powder-coated parts (except hydraulic fan) with CDP coating (automotive standard)
- Standard parts (bolts, flat discs, nuts, etc.), agitator, brush adjustment made of stainless steel
- Airtight and corrosion-resistant seeding shaft cover
- Pressure gauge for optimal air flow setting for hydraulic fan





² Select the control box based on your desired functions (page 12-15)

³ For use with the Control Box 1.2, 5.2 & 6.2

PS 500 M2 D

EQUIPMENT FOR ANY APPLICATION

The PS 500 M2 D convinces primarily with its multiple applications. With a hopper capacity of 500 litres, this special device is able to take up large quantities of spreading material. We recommend the PS 500 M2 D to farmers and contractors managing large surfaces.

TECHNICAL DATA

K 2	Working width	1 - 6 m with electric double fan, 8 outlet
		1 - 7 m with hydraulic fan, 8 outlets
		1 - 12 m with hydraulic fan, 16 outlets ¹
ЯK	Dimensions	H 125 cm, W 80 cm, D 120 cm
Ø	Seed hopper	500 l plastic hopper
<u> </u>	Net weight elec. / hydr	93 kg / 116 kg
•	Power data	12 V / 25 A

Max. required pressure: 180 bar Max. required oil quantity: 38 l / min

When equipped with hydraulic fan 1 single-acting control unit (coupling size BG 3) + 1 pressureless return flow (coupling size BG 4) required.

ITEMS INCLUDED

- Optionally with Control Box 1.2, 3.2, 5.2 or 6.22 (different price category)
- Complete non-corrosive seeder with hoses (25 m)
- Seeding shaft for fine seed, seeding shaft for coarse seed
- Agitator made of stainless steel
- 6 m cable from seeder to control box
- · Non-corrosive calibration slide, calibration bag, counter plate (galvanised), seed scale, fill level sensor³
- Fan pressure monitoring³ for hydraulic fan
- 8 stainless steel dispersion plates & 4 galvanised hexagonal bars (for dispersion plate mounting)



YOUR BENEFITS

COMFORTABLE OPERATION

- Fill level sensor³ that reminds you on time to refill the fertiliser or seed
- Infrequent refilling due to large hopper
- Larger hopper opening that facilitates filling

VERSATILITY

 You are equipped for almost any application



BENEFITS OF ALL APV FERTILISER PS

- Possibility to spread fertiliser, micro granules, pesticides and catch crops
- All powder-coated parts (except hydraulic fan) with CDP coating (automotive standard)
- · Standard parts (bolts, flat discs, nuts, etc.), agitator, brush adjustment made of stainless steel
- Airtight and corrosion-resistant seeding shaft cover
- Pressure gauge for optimal air flow setting for hydraulic fan





² Select the control box based on your desired functions (page 12-15)3 For use with the Control Box 1.2, 5.2 & 6.2

PS 800 M1 D

LARGE VOLUME FOR GREATER CHALLENGES

The PS 800 M1 D with 800 I capacity has the largest hopper volume of the Pneumatic Seeders of the APV Fertiliser Edition. All components are perfectly adapted for intensive use. The seeder is equipped with 16 outlets, a strong hydraulic fan and a steel hopper, as well as many other extras.

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TECHNICAL DATA

Working width..... 3 - 12 m with hydraulic fan, 16 outlets

3 - 12 m with hydraulic fan, 32 outlets¹

Seed hopper 800 I steel hopper

> Max. required pressure: 180 bar Max. required oil quantity: 381/ min

One single-acting control unit (coupling size BG 3) + 1 pressureless return flow (coupling size BG 4) required.

⊘

ITEMS INCLUDED

- Optionally with Control Box 5.2 or 6.2² (different price category)
- Complete non-corrosive seeder with hoses (75 m)
- Seeding shaft for fine seed, seeding shaft for coarse seed
- · Agitator made of stainless steel
- 6 m cable from seeder to control box
- Non-corrosive calibration slide, calibration bag, counter plate (galvanised), seed scale, fill level sensor³ fan pressure monitoring³
- 16 stainless steel dispersion plates
 & 8 galvanised hexagonal bars
 (for dispersion plate mounting)
- crane straps for easier handling during mounting
- foreign body sieve



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YOUR BENEFITS

COMFORTABLE OPERATION:

- Fill level sensor³ that reminds you on time to refill the seed
- Infrequent refilling
- Easier filling due to largest hopper opening for big bag filling
- Reversible hopper cover
- On/off agitator

VERSATILITY

- Spreading of large quantities of seed per hectare
- You always have a second seeding shaft in parking position with you





BENEFITS OF ALL APV FERTILISER PS

- Possibility to spread fertiliser, micro granules, pesticides, and catch crops
- All powder-coated parts (except hydraulic fan) with CDP coating (automotive standard)
- Standard parts (bolts, flat discs, nuts, etc.), agitator, brush adjustment made of stainless steel
- Airtight and corrosion-resistant seeding shaft cover
- Pressure gauge for optimal air flow setting





² Select the control box based on your desired functions (page 12-15)

³ For use with the Control Box 5.2 & 6.2

PS 300 M1 D TWIN

BEST RESULTS DUE TO DIVIDED HOPPER AND TWO SEEDING SHAFTS

The PS 300 M1 D TWIN makes it possible to spread two entirely different seed types/fertilisers with one machine. The hopper is divided in the middle by a partition wall. With the Control Box 5.7, every side of the seeding shaft can be controlled separately.

TECHNICAL DATA

Working width...... 3 m with 4 outlets per seeding shaft

(8 outlets with 8 Y distributors or

doubling pieces available as accessories) Dimensions H 105 cm, W 75 cm, D 100 cm

(PS 300 TWIN+ elec. fan)

H 105 cm, W 70 cm, D 115 cm

(PS 300 TWIN+ hydr. fan)

Seed hopper 300 l steel hopper with hopper division

Net weight elec. / hydr. 100 kg / 123 kg

Power data 12 V / max. 40 A

Max. required pressure: 180 bar Max. required oil quantity: 38 l / min

When equipped with hydraulic fan 1 single-acting control unit (coupling size BG 3) + 1 pressureless return flow (coupling size BG 4) required.



ITEMS INCLUDED

- Complete seeder with hoses (25 m)
- Seeding shaft f-fb for fine seed and Flex20 for coarse seed
- 6 m cable from seeder to control box
- Divided calibration slide, counter plate (galvanised)
- 8 stainless steel dispersion plates & 4 galvanised hexagonal bars (for dispersion plate mounting)
- 2 x calibration bag, seed scale
- Pressure monitor¹ for hydraulic fan
- 2 x fill level sensors¹ (1 per hopper half)



YOUR BENEFITS

- Completely non-corrosive (CDP coating) as Pneumatic Seeders of the fertiliser edition
- Better overall sealing than PS standard
- Divided steel hopper
- Divided seeding shaft with one gearbox motor each
- Divided calibration slide
- One air flap per seeding shaft for individual air regulation
- Agitator drive via gear wheel (can be switched off)
- Power supply directly from the battery to the control box
- Control Box 5.7 with 62-pin plug
- Fan pressure monitoring¹ for hydraulic fan
- Fill level monitoring¹ in each hopper half









APPLICATIONS

- Catch crop cultivation with several components in different grain sizes (no segregation)
- Catch crop cultivation with several components with different positions (e.g. before the roller and in the tines)
- Fertiliser and pesticide spreading in one step, e.g. for corn cultivation
- One-sided shutoff on one machine

1 For use with the Control Box 5.7

CONTROL BOX 5.2

THE BEST-SELLER CONTROL BOX

The Control Box 5.2 is the most popular version of the APV control boxes and includes extensive functions.

Such functions as adjusting the spread rate to the travel speed, the automatic switch-off on headland, the ability to precisely regulate the electric fan or the automatic execution of the calibration test simplify work enormously.



USER BENEFITS

- · Electronic control and monitoring of the seeding shaft
- Electronic adjustment of the spread rate Calibration test: Display possible in during operation
- Emptying
- Speed calibration
- Automatic adjustment of spread rate to travel speed (in combination with the speed sensor)
- Pre-seeding
- Adjustment of electric fan

- Automatic calibration test (only weighing!)
- kg/ha and grains/m²
- Display of operation voltage and current intensity
- Total hours and daily hours counter
- Total hectares and daily hectares counter
- Headland management (in combination with tractor linkage sensor)

ADDITIONAL FUNCTIONS

- Various languages available
- Choice between various measurement units (metric, imperial)
- Device monitoring (in combination with implement sensors. Examples: pressure monitor and fill level sensor)

The Control Box 5.2. is optimised for use with the following seeders:

- PS 120 M1 D
- PS 200 M1 D
- PS 300 M1 D
- PS 500 M2 D
- PS 800 M1 D



CONTROL BOX 6.2

THE TOUCH CONTROL BOX

The Control Box 6.2 convinces with even more functionality for the professional farmer and contractor. The large touch display shows all key machine processes at one glance. The menu is designed for intuitive operation with self-explanatory symbols.

Due to the additional functions, such as for example the automatic pre-seeding of the seeds and the creation of a seed library, you are able to configure the use of your seeder even more efficiently.



USER BENEFITS

All functions of the Control Box 5.2

in addition:

- Seed library: Store your regular seeds and switch the application by pressing a button (without a new calibration test)
- Remaining quantity indicator (surface & itinerary)
- Storage of up to 5 speed calibration values for regular use of different tractors
- Speed indicator with hydraulic fan (optional fan speed sensor)
- Automatic pre-seeding

ADDITIONAL FUNCTIONS

- Operation via the touch colour display
- · Update option via USB flashdrive and Internet
- Robust aluminium case

The Control Box 6.2. is optimised for use with the following seeders:

- PS 120 M1 D
- PS 200 M1 D
- PS 300 M1 D
- PS 500 M2 D
- PS 800 M1 D



CONTROL BOX 3.2 | CONTROL BOX 1.2

THE STARTER CONTROL BOX | THE SOLID BASIS

The Control Boxes 3.2 and 1.2 are the ideal starter control boxes and stand out due to their compactness. Both have the key basic functions for seeding, while the Control Box 1.2 is also compatible with selected implement sensors. The speed of the seeding shaft and fan can be adjusted with both models easily, fast and straightforward.



BASIC FUNCTIONS

- Electronic control and monitoring of the seeding shaft
- Electronic control and monitoring of the electric fan
- Electronic adjustment of the spread rate during operation
- Calibration test function
- Acoustic and visual error warning



ADDITIONAL FUNCTIONS CONTROL BOX 1.2

- Implement monitoring (in combination with implement sensors. Example: pressure monitor)
- Possibility of fill level alert (in combination with implement sensors. Example: fill level sensor)

The Control Boxes 3.2 and 1.2. are optimised for use with the following seeders:



- PS 120 M1 D
- PS 300 M1 D
- PS 200 M1 D
- PS 500 M2 D



CONTROL BOX 5.7

THE TWIN CONTROL BOX

The Control Box 5.7 completes the PS 300 M1 D TWIN and allows the separate control of two seeding shafts. With the same type of functioning, the Control Box 5.7 also offers the possibility to operate up to two APV seeders in parallel and independently of each other with an additional adapter cable. In order to complete the package of the multitasking control box, the control is compatible and can be combined with any sensors.¹



USER BENEFITS

All functions of the Control Box 5.2

in addition:

- Independent control of up to two seeding shafts and an electric fan (PS 300 M1 D TWIN)
- Parallel operation of up to two APV seeders independently of each other with electric or hydraulic fan
- No limitation on the use of additional implement sensors



USER'S INSTRUCTIONS

 When jointly using two PS with electric fan or two MDP, pay attention to a possible reduction of the ventilation system performance due to the greater power consumption.

The Control Box 5.7. is optimised for use with the following seeders:

- PS 300 M1 D TWIN
- Individual or parallel use:
 - PS 120 M1 D
 - PS 200 M1 D
 - PS 300 M1 D
 - PS 500 M2 D
 - PS 800 M1 D



1 Except fan speed sensor

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SEEDING SHAFTS

These seeding shafts have special corrosion protection.

PS FERTILISER EDITION

STANDARD EQUIPMENT

TYPE

IMAGE

THE FINE-BLIND roller fb-f-fb-fb



THE FLEX 20 roller fb-Flex20-fb

Phacelia

Micro granules

Mustard

RELIABLE METERING OF THE FOLLOWING SEEDS

Peas Beans

Fertilisers

THE FINE-FULL

roller

fb-fv-fv-fb

THE EXTRA FINE-FULL

fb-efv-efv-fb

THE FINE roller f-f-f-f

THE FLEX 40 roller Flex40

Clover

Cress

Micro granules

Canola



Grass

Mustard

Cress



Fertilisers

Cereals

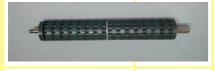
Peas

TWIN-PS

STANDARD EQUIPMENT

THE FINE-BLIND roller fb-f

Flex20



Mustard

Micro granules

Clover

· Phacelia

THE FLEX 20 roller

Cereals

Fertilisers

Buckwheat

ACCESSORIES

THE FINE roller



- Grass
- Cereals
- Cress

FAN

Depending on application, we recommend different types of fans. The fans differ by ventilation system performance, connection requirements (electric, hydraulic, or power take-off) and price.

- As a rule, you can equip the PS 120-500 with all three types of fans, the electric fan, the hydraulic fan, and the PTO shaft fan. We recommend that you seek advice from our sales team or distributors regarding the suitability of individual fans for your application.
- For the PS 800 we include in the standard equipment an even more powerful hydraulic fan.¹

Below you will find an overview of the functions of individual fans.



ELECTRIC FAN²



The electric fan is the basic version. It is suitable for spreading on limited working widths. The benefit of the electric fan is that you do not need a hydraulic connection.



HYDRAULIC FAN



If the ventilation system performance of the electric fan is too low, then the hydraulic fan is the right choice. It is recommended for spreading on large working widths or large spread rates.

Max. required pressure: 180 bar Max. required oil quantity: 38 l / min



PTO SHAFT FAN



Like the hydraulic fan, the PTO shaft fan offers high ventilation system performance on large working widths. The PTO shaft fan is the alternative if you cannot use a hydraulic fan.

¹ Due to the special requirements of the PS 800 M1, only the use of the hydraulic fan is possible

² The electric fan is a powerful double fan.

PS FOR SPECIAL APPLICATIONS

The "PS for special applications" expands the hose outlets of your PS. Acquisition is only possible when purchasing a new PS, as the entire seeder is adapted to the extension of the outlets. This is how we guarantee exact metering and best lateral distribution.



YOUR BENEFITS

- The PS 120-500 are available with 9 16 outlets
- With PS 800 we offer doubling from 16 to 32 outlets
- Precise seed lateral distribution on large working widths
- Precise placement of the seed
- Direct metering of the seed in up to 16 seeding blades (PS 120-500) and up to 32 seeding blades (PS 800)
- Individual adjustment: All PS components are adjusted for the extended outflows in the APV factory
- Easy hose routing
- All quality standards remain in place

NOTE:

Pneumatic Seeders for special applications

- are not suitable for large and heavy seeds (e.g. peas, beans).
- can only be acquired when purchasing a new seeder, as it is adjusted directly in the APV factory.

When buying, ask for advice regarding the other planned applications.



SENSORS

In order to be able to use all functions of your Pneumatic Seeder, we offer a wide range of sensors as accessories.

Choosing the right sensor depends on various factors. Allow our experts to guide you in the selection of the matching sensor.



SPEED SENSORS

Speed sensors transmit your travel speed to the control box¹. Based on this information, the control box adjusts the spread rate automatically to the travel speed.

Depending on your needs, you may choose from the following sensors:

- GPSa sensor
- Radar sensor MX 35
- · Wheel sensor
- 7-pin signal cable



SENSORS FOR HEADLAND MANAGEMENT

When your machine becomes stuck, this sensor automatically transmits this information to the control box¹. The seeding shaft stops and starts automatically when the machine is ready for operation again.

Depending on your needs, you may choose from the following sensors:

- Tractor linkage upper bar sensor
- · Tractor linkage lower bar sensor
- · Tractor linkage pull switch sensor
- Hydraulic tractor linkage sensor
- · Inductive tractor linkage sensor



SENSORS FOR IMPLEMENT MONITORING

We offer implement sensors, such as the fill level sensor and the fan speed sensor. These allow you to work more comfortably.

- The **fill level sensor** tells you when the seed hopper is becoming empty.
- The **fan speed sensor for hydraulic fan**² continuously checks the right speed of the hydraulic fan for your application.

¹ Control Box 5.2, 5.7 or 6.2 are required

² Control Box 6.2 is required

ADDITIONAL ACCESSORIES

CALIBRATION BUTTON¹



Affix the calibration button with the integrated magnet in your desired position.

Your benefit: Execute the calibration test and the hopper discharge directly on the machine. With the calibration button you can decide the duration of the calibration test.

FILL LEVEL SENSOR FOR PS²



The fill level sensor triggers an alarm on the control box if there is too little seed / fertiliser in the hopper.

Your benefit: You will be alerted in a timely manner that the seed / fertiliser needs to be refilled.

SEED FLOW MONITORING



For the permanent monitoring of the seed flow of each individual outlet/hose. The unit can be mounted and used completely independently of other control boxes.

Your benefit: Hose blockage is immediately recognised and unseeded or unfertilised strips avoided during seeding.

ADDITIONAL ACCESSORIES

+ HOSE COUPLER



Our quick connection system is used in order to switch the PS between several soil tillage implements.

Your benefit: The separation process can be done without tools.

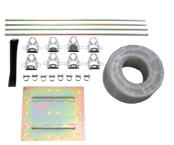
Y DISTRIBUTOR IMPACT-FREE



The Y distributor is installed in order to split a hose. It provides a homogeneous mix of the seed and an optimal distribution on the 2 other hoses.

Your benefit: Obtain precise lateral distribution despite the splitting of the hoses.

ACCESSORY KIT FOR SECOND PS ON SOIL TILLAGE IMPLEMENT



The accessory kit for the second mounting PS contains the key parts for mounting the PS on an additional soil tillage implement.

Your benefit: This means that these parts do not need to be dismantled and assembled.

ADDITIONAL ACCESSORIES

TRAINING ELEMENT MOUNTING KIT FOR DISC SPREADERS, MULTI-METERING SYSTEMS AND PNEUMATIC SEEDERS



This bracket is mounted on the back crossbar of the soil tillage implement so the spreader can be assembled. The mounting kit includes an access platform, an operator platform and a bracket whose angle can be adjusted for the mounting of the Disc Spreader, Multi-Metering System or Pneumatic Seeder PS 120 - 500 (with electric or hydraulic fan).

→ MODULAR ACCESS PLATFORM



This kit allows you to safely fill the hopper. It can be added later to your soil tillage implement if there is no step or fill platform yet.

Your benefit: Safe filling of the hopper.

AIR SEPARATOR AIR GUARD



This adjustable air separator makes sure that the air flow is separated and fertiliser / micro granules are securely placed in the desired location and also stay there (they are not blown from the channel).

Your benefit: Safe and careful placement of your fertiliser!

ADDITIONAL ACCESSORIES

FAN SPEED SENSOR FOR HYDRAULIC FAN¹



With the help of this sensor, the speed of the hydraulic fan is displayed on the Control Box 6.2.

Your benefit: You can check whether the right speed is set depending on application.

CONTROL BOX BRACKET



The control box bracket can be mounted on an already existing Müller bracket (pipe).

Your benefit: Optimal fixing of the control box on your tractor.

SUBSEQUENT INSTALLATION OF 3-PIN STANDARD PLUG ON TRACTOR



The 8 m cable is screwed on the battery side directly with the battery poles and a 3-pin standard plug is mounted at the other end, which can be installed permanently in the tractor.

Your benefit: This simplifies the dismantling and assembly of devices with a 3-pin standard plug.

1 Not suitable for TWIN PS

Innovation for the Future

- since 1997 -



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