

Dry Material Feeder



exact dosing

heated discharge pipe

controllable flow rate

flexible control

high operational safety

high-quality materials

Dry Material Feeder

sera Dry Material Feeder

have been constructed for the exact dosing of powdered dry material.

The dry material feeder is a volumetric feeder, that discharges a reproducible subset from a container as a proportional to the speed. Optionally the discharge rate can be individually adjusted by control electronics. The dry feeder has a heater on the discharge pipe, which prevents moisture from entering the hopper and the dry material forms bridges.

Furthermore, additional options can be delivered for dry material to meet all tasks in different application areas.

Capability characteristics

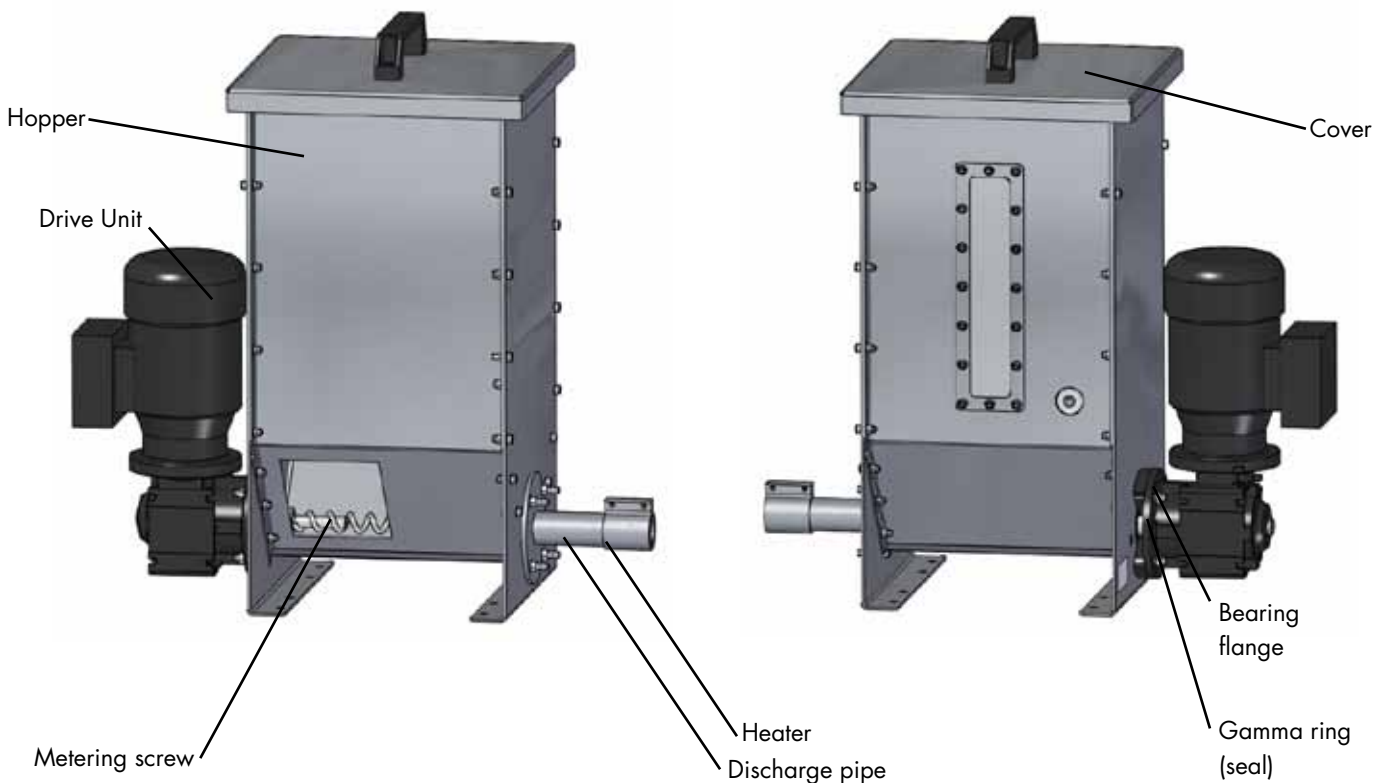
- Highest accuracy
- Flexible control
- High operational safety
- High quality materials
- Optionally expandable

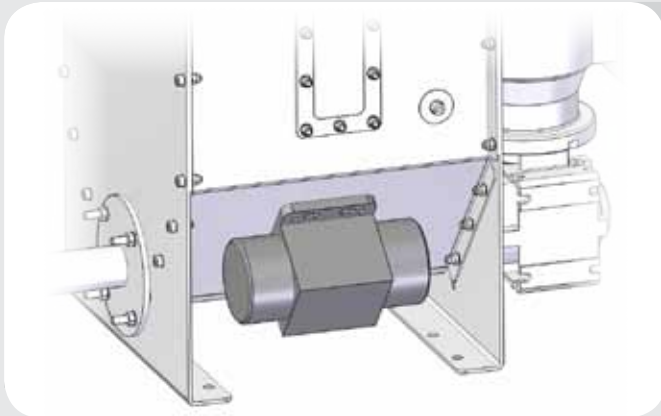
Applications

All industries and applications where free-flowing, not adhering and not bridging bulk materials must be conveyed.

For example:

- Sewage technology
- Drinking and process water treatment
- Sludge dewatering
- Treatment of process and circuit water
- Chemical industry
- Power plants
- Paper industry





Vibrator

The vibrator prevents the building of bridges of the dry material in the hopper, to ensure continuous production.

Sensor Empty signal for hopper

The capacitive limit switch of the funnel allows a good control of the filling level in the hopper.

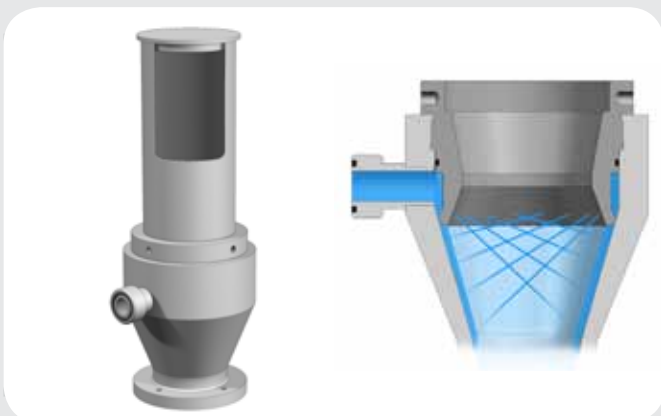


Hopper extension

The storage volume of the dry material can be expanded with the help of a hopper extension.

Conveying system

The conveying system is used for automatic charging of the DMF-housing with the dry material.



Mixing device

The mixing device is used for the moisture of hardly soluble or poorly moistured dry materials with solvent water and prevents the formation of lumps in the mixing level.

Controllable dry material feeder



Functions + Mode selections

- Analogue operation (0/4-20mA, standardization)
- Batch operation
- Extern STOP/ Extern wait
- 3 LEDs for status indication
- Multiline illuminated text display
- Menu-driven parameterization
- 4 key operation
- 2 digital outputs (PLC)
- 1 digital input (PLC or contact signal)
- 2 analogue/ digital inputs (reversible)
- Programmable input-/ output functions
- 2-stage level monitoring
- Speed control

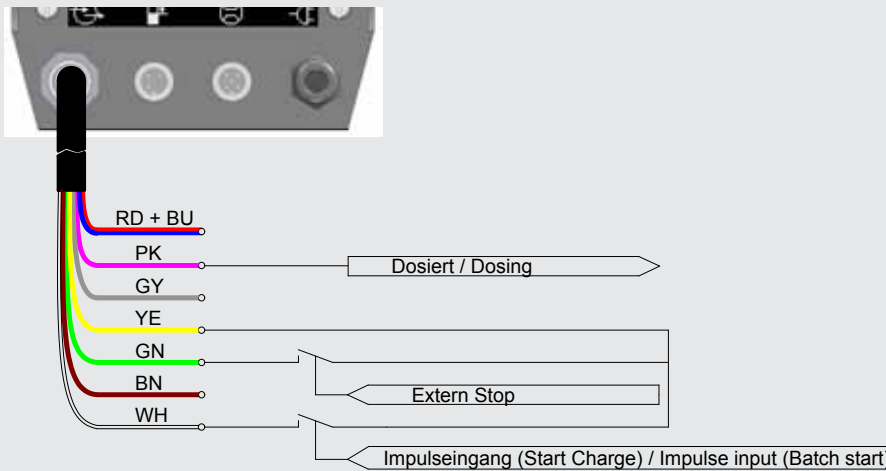
Electrical connecting data

Type	Voltage 50/60 Hz	Electrical connection	Recommended fuse 230V AC
DMF - EB.2	210-250 V	Length approx. 2 m with Euro-plug	C6A Circuit breaker

Electrical interfaces

The function of the control inputs and outputs is programmable. The contact is to be set as switch normally open (switch NO) or switch normally closed (switch NC). Digital inputs are controllable by PLC or contact signal. Assignment of the 8-pole control cable:

Strand color	Function (Pre setting ex works)	Description
WH white	Input 01 (Impulse)	Digital input
BN brown	Input 02 (Analogue 01)	Programmable as digital- or analogue input
GN green	Input 03 (Extern STOP)	Programmable as digital- or analogue input
YE yellow	Output +/- Signal + / 15V DC	
GY grau	Output 01 (Collective fault)	Digital output
PK pink	Output 02 (Run signal)	Digital output
RD red	Ground	
BU blue	Ground	



Technical data In- and Outputs

Analogue Input	Digital Input	Digital Output
0/4...20mA, Input impedance 100 Ω	5 - 30V DC, 50mA, minimum impulse length 55ms minimum impulse distance 55ms	<ul style="list-style-type: none"> max. 15V DC, 50mA (internal supply) max. 30V DC, 350mA (external supply)

Programmable functions of In- and Outputs

Analogue Input	Digital Input	Digital Output
0/4...20mA <ul style="list-style-type: none"> Input value drive speed or capacity * (Analogue) Input value run time or quantity * (Batch) 	<ul style="list-style-type: none"> Impulse (Batch start) Extern Stop Change-over between analogue inputs (only Input 01) Extern wait Vibrator ON ** 	<ul style="list-style-type: none"> Operational Dosing... Dry running Pre-alarm level Batch finish Internal error Collective report Collecting fault Hopper empty **

Operating modes

MANUAL	manual operation with programmable speed (%) or input value capacity * (in kg/h)	<ul style="list-style-type: none"> Extern Stop Dosing process is aborted (batch) or stopped Extern wait Dosing process is interrupted (batch) or stopped
BATCH	Input value running time (in sec) or volume * (in kg/h) manually or via analogue signal (0/4-20mA). Start is possible manually or via an external signal	
ANALOGUE	external input value speed or capacity by analogue-signal (0/4...20mA)	

* only if calibrated

** if available

Dry Material Feeder DMF -2

Illustration



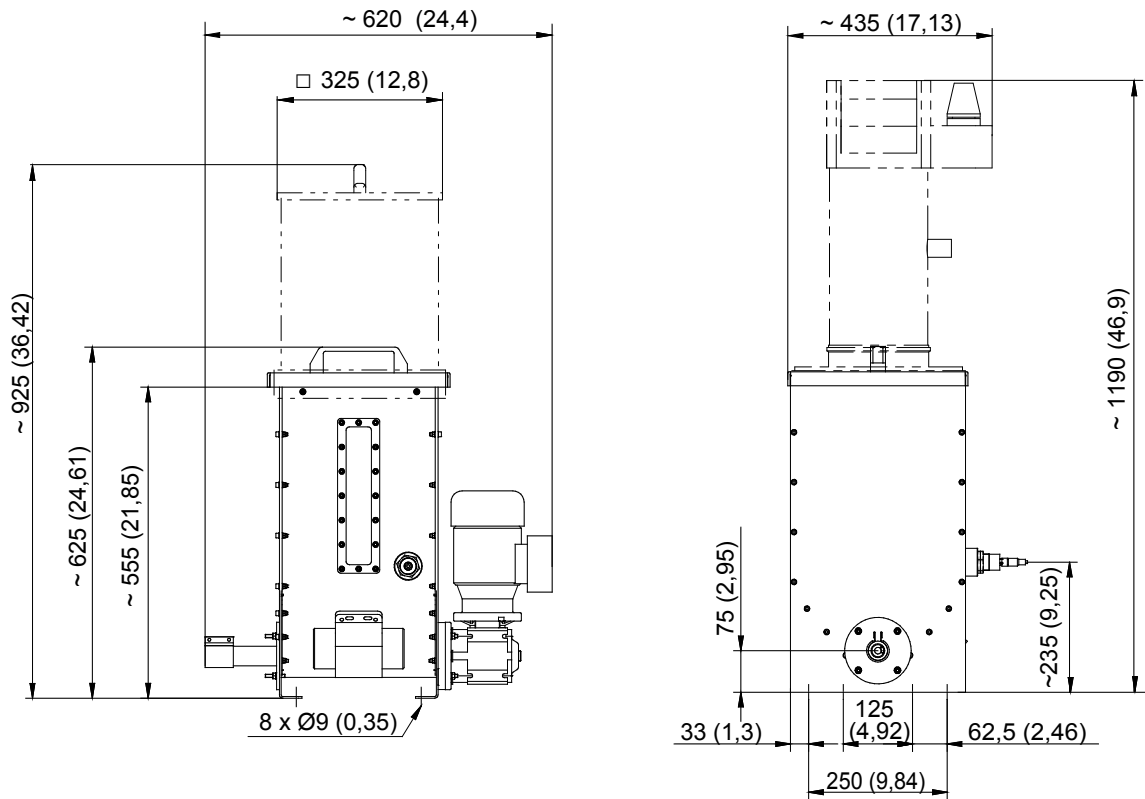
Technical data

Type	Power l/h	Hopper volume Litre	Empty Weight ¹⁾ kg	for dry material	
				Density kg/l	Grain size mm
DMF - 5.2	5	35	28	0,5 - 1,2	1,5
DMF - 20.2	20	35			
DMF - 50.2	50	35			
DMF - 200.2	200	35			

1) Standard execution

Dimensional drawing

mm (inch)



Motor data

Type	Power kW	Frequency Hz	Voltage V	Rated current A	Isolation class	Protection class IP	Rotation min ⁻¹
DMF - 5	0,09	50	230 / 400	0,94 ¹⁾ / 0,54 ²⁾	F	55	17
DMF - 20	0,18			1,18 ¹⁾ / 0,68 ²⁾			68
DMF - 50	0,09			0,94 ¹⁾ / 0,54 ²⁾			17
DMF - 200	0,18			1,18 ¹⁾ / 0,68 ²⁾			68

1) Δ Delta connection 2) Y Star connection

Locally present for our global customers

With a headquarter in Germany and local offices in England and South Africa and a worldwide sales and service network with more than 30 foreign representatives in more than 80 countries across all continents, sera guarantees optimum support for customers locally.



sera ProDos GmbH
sera-Straße 1
34376 Immenhausen
Deutschland

Tel.: +49 5673 999-02
Fax: +49 5673 999-03

info-prodos@sera-web.com
www.sera-web.com

sera ProDos UK Ltd.
Axon 2, Commerce Road,
Lynchwood
Peterborough, PE2 6LR
Grossbritannien

Tel.: +44 1733 396040
Fax: +44 1733 396050

sales.uk@sera-web.com
www.sera-web.com

sera ProDos SA (PTY) Ltd.
Unit 3-4, Airborne Park
Cnr Empire & Taljaard Str
Bartletts, Boksburg,
1459 Gauteng
Südafrika

Tel : +27 11 397 5120
Fax : +27 11 397 5502

sales.za@sera-web.com
www.sera-web.com

Local **sera** contact:

