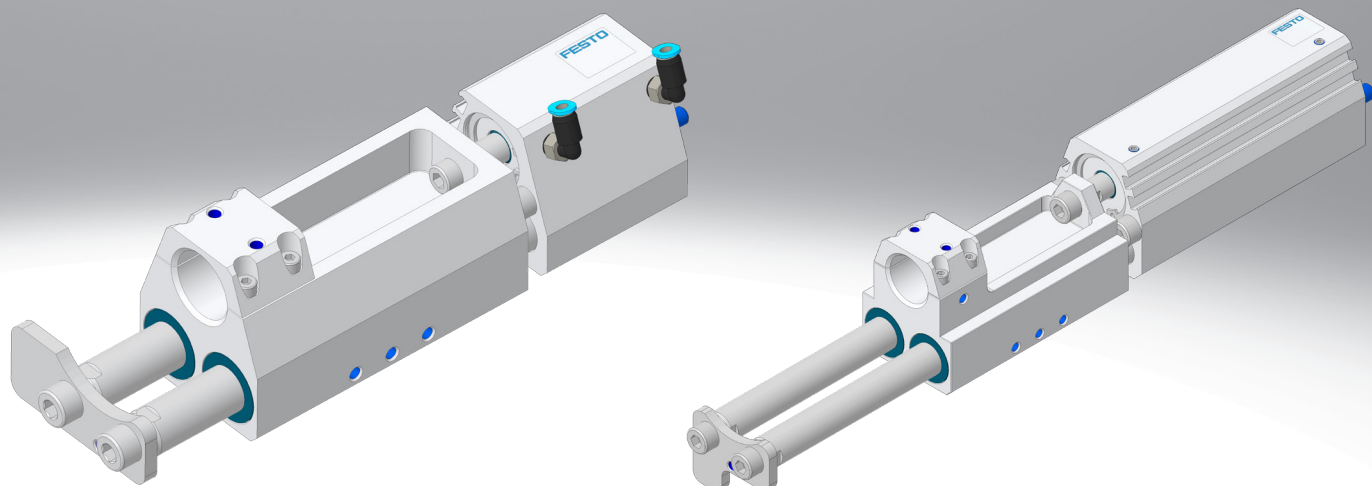


# Pneumatic Welding Unit DFM25-PW/DFM32-PW

**FESTO**



# Pneumatic Welding Unit

## Picture of product

Key features:

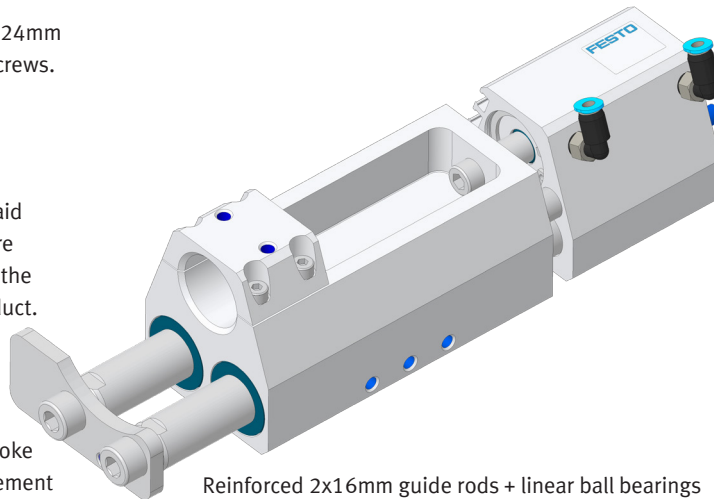
- Used for ultrasonic welding field.
- Compact and lightweight guided carriage.
- Strong guide rod.
- Ball linear bearings guided.
- Adjustable stroke.

Sensor Slot

Clamping the welding head, 24mm round hole, locked by four screws.

Stroke adjustment with the aid of screws, 0-20mm, to ensure overall safe displacement of the displacement sensor or product.

Stopper for adjusting the stroke limit and the limit of displacement sensor, which can be removed for right-left reversal or model replacement.



4mm O.D. tubing, push-in

3xM6 screws through the cylinder, provide maximum possible rigidity and guarantee positional accuracy of the welding head.

Compact cylinder, diameter 25mm, stroke length 30mm, delivering more than 200N of force to the welding head while requiring minimum space.

Reinforced 2x16mm guide rods + linear ball bearings  
To ensure positional accuracy of the welding head under lateral forces and vibrations.

Thread M5 on all sides for accessories such as displacement sensor, cooling tubes, etc.

## Ordering table

Part number	8199863
Type	DFM-PW-25-30-P-A-KF-CS
Function	Cylinder with guided carriage

## Application information

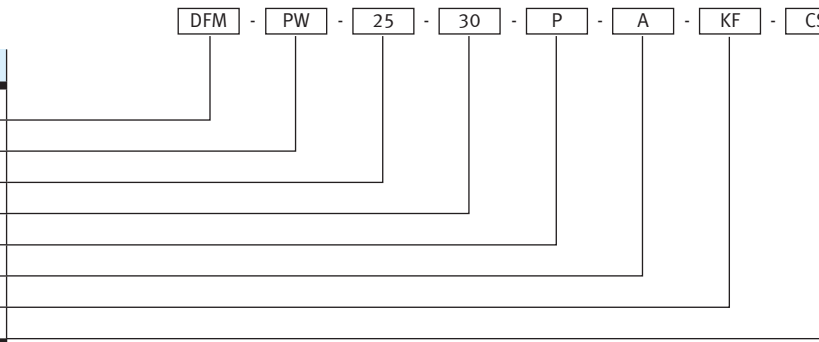
Description of application	In the production process of automotive interiors, a large number of plastic parts require ultrasonic welding. The function of this cylinder is to provide the extension and retraction power of the welding head, and to withstand a certain lateral force to maintain the welding position. The cylinder is usually installed vertically, with the bottom of the cylinder fixed on the top mounting bracket and the welding head welded vertically downwards
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**Type code**

DFM - PW - 25 - 30 - P - A - KF - CS

**Code designation**

DFM	Pneumatic Welding Unit
PW	Plastic welding
25	Piston diameter mm
30	Stroke mm
P	Elastic cushioning plates at both ends
A	For proximity sensor
KF	Recirculating ball bearing guide
CS	CP project



**General technical data**

Piston diameter	25 mm
Stroke	30 mm
Pneumatic connection	Tube Ø4 mm
Design	Guidance
Maximum lateral torque capacity	6 Nm
Deflection at the end of the guide rod	< 0.15 mm
Mode of operation	Double-acting
Cushioning	Elastic cushioning rings/plates at both ends
Position detection	Via proximity switch
Mounting position	Three bolt through cylinder housing
Guide	Recirculating ball bearing guide
Interface for customer	Ø24 mm clamp holder
Corrosion resistance class acc. to FN940 070	CRC 1
Weight	1480g

**Operating and environmental conditions**

Type	
Operating medium	Compressed air accordance with ISO 8573-1:2010 [7:4:4]
Ambient temperature	0...+60 °C
PWIS criterion	VDMA24364 Zone III

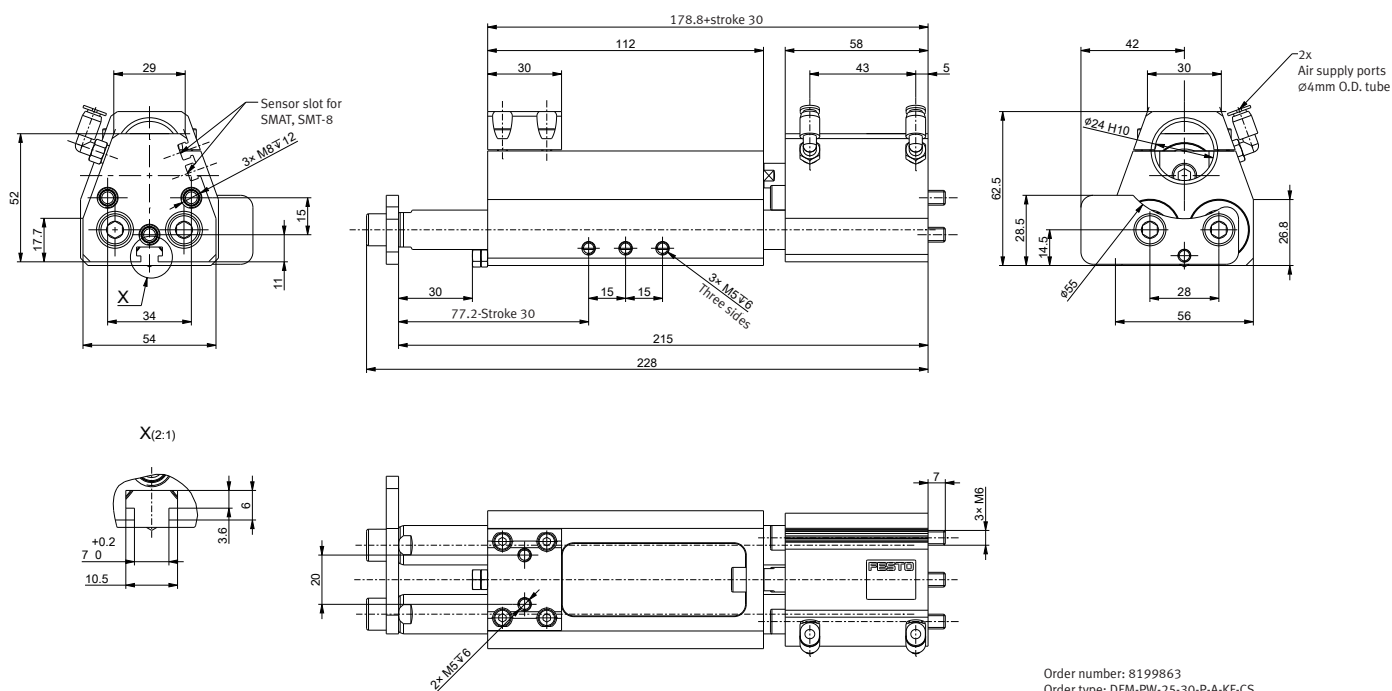
**Forces and impact energy**

Piston Ø	25
Theoretical force at 0.6 MPa, advance stroke	295 N
Theoretical force at 0.6 MPa, return stroke	247 N

## Data sheet

### Dimensions

Download CAD data → [www.festo.com](http://www.festo.com)



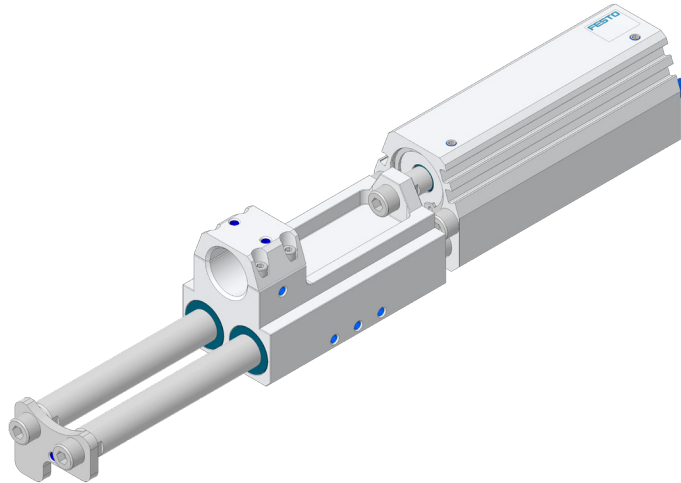
Order number: 8199863  
Order type: DFM-PW-25-30-P-A-KF-CS

- Specific feature:
- Used for ultrasonic welding field.
  - Compact and lightweight guided carriage.
  - Strong guide rod.
  - Ball linear bearings guided.
  - Adjustable stroke.

### Picture of product

Key features:

- Used for ultrasonic welding field.
- Compact and lightweight guided carriage.
- Strong guide rod.
- Ball linear bearings guided.
- Adjustable stroke.



### Ordering table

Part number	8214971	8214673	8214672
Type	DFM-PW-32-40-P-A-KF-R-CS	DFM-PW-32-60-P-A-KF-R-CS	DFM-PW-32-100-P-A-KF-R-CS
Stroke	40 mm	60 mm	100 mm
Function	Cylinder with guided carriage		

### Application information

Description of application	<p>In the production process of automotive interiors, a large number of plastic parts require ultrasonic welding. The function of this cylinder is to provide the extension and retraction power of the welding head, and to withstand a certain lateral force to maintain the welding position.</p> <p>The cylinder is usually installed vertically, with the bottom of the cylinder fixed on the top mounting bracket and the welding head welded vertically downwards</p>
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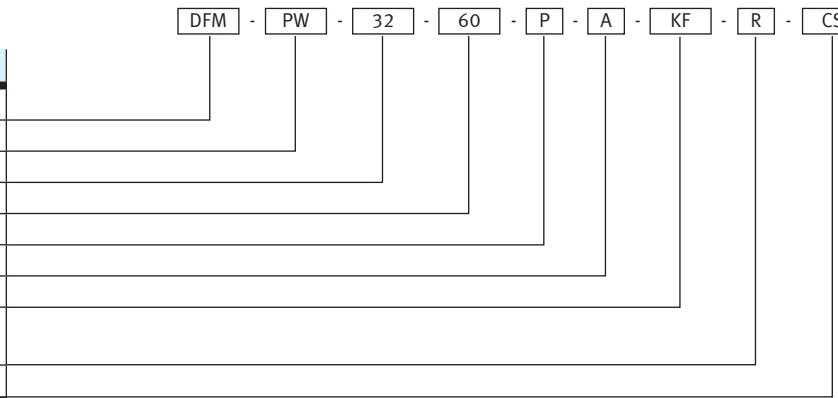
# Pneumatic Welding Unit

## Type code

DFM - PW - 32 - 60 - P - A - KF - R - CS

### Code designation

DFM	Pneumatic Welding Unit
PW	Plastic welding
32	Piston diameter mm
40/60/100	Stroke 40/60/100 mm
P	Elastic cushioning inside of cylinder
A	For proximity sensor
KF	Recirculating ball bearing guide
F	Customer interface Flat
R	Customer interface Round
CS	CP project



### General technical data

Piston diameter	25 mm		
Stroke	40 mm	60 mm	100 mm
Pneumatic connection	Thread M5		
Design	Guidance		
Maximum lateral torque capacity	6 Nm		
Deflection at the end of the guide rod	< 0.15 mm		
Mode of operation	Double-acting		
Cushioning	Elastic cushioning rings/plates at both ends		
Position detection	Via proximity switch		
Mounting position	Three bolt through cylinder housing		
Guide	Recirculating ball bearing guide		
Interface for customer	Flat interface with thread holes		
Corrosion resistance class acc. to FN940 070	CRC 1		
Weight	1912g	2122g	2544g

### Operating and environmental conditions

Type	
Operating medium	Compressed air accordance with ISO 8573-1:2010 [7:4:4]
Ambient temperature	0...+60 °C
PWIS criterion	VDMA24364 Zone III

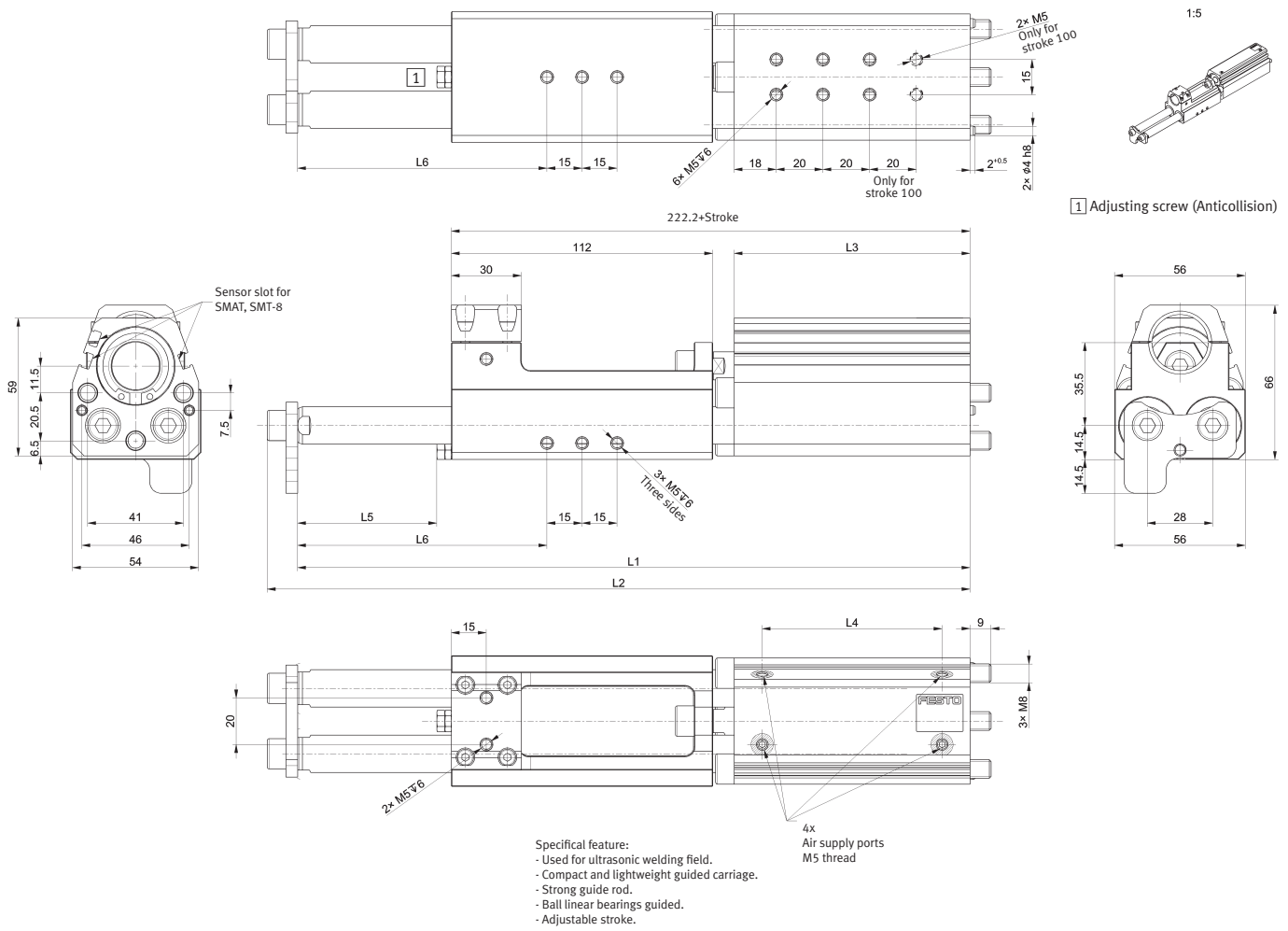
### Forces and impact energy

Piston Ø	32
Theoretical force at 0.6 MPa, advance stroke	482 N
Theoretical force at 0.6 MPa, return stroke	415 N

# Data sheet

## Dimensions

Download CAD data → [www.festo.com](http://www.festo.com)



Order number	Product type	Stroke	L1	L2	L3	L4	L5	L6
8214971	DFM-PW-32-40-P-A-KF-R-CS	40	248	261	81	57	39.6	86.8
8214673	DFM-PW-32-60-P-A-KF-R-CS	60	288	301	101	77	59.6	106.8
8214672	DFM-PW-32-100-P-A-KF-R-CS	100	368	381	141	117	99.6	146.8

Spare parts				
0480		8214676	Tubing holder	DFM-PW-25/32-CS:SP
0480		8214352	Stop plate	DFM-PW-25/32-A-CS:SP
040		8214867	Stop plate	DFM-PW-25/32-B-CS:SP