

Power Clamps

Technical Instructions GN 8620 / GN 8621

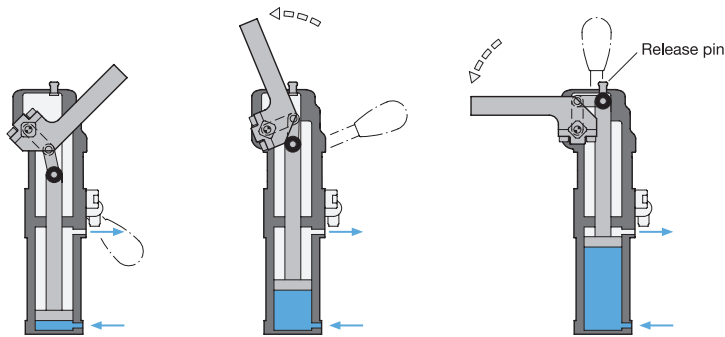
Electrical properties of electromagnetic sensor		
Output function	NO (normally open)	
Switch output	PNP	
Supply voltage	10 ... 30 VDC	
Continuous current I _a	≤ 100 mA	
Connection type	4-pin plug M12x1	
Protection class	IP 68	
Power consumption	≤ 30 mA	
Voltage drop	≤ 2 V	
EMC	According to EN 60947-5-2	
Operating temperature	0 °C ... +50 °C	
Short-circuit protection	Yes	
Supply voltage indication	LED green	
Power clamp open indication	LED yellow	
Power clamp closed / clamped indication	LED red	

Safety Instructions

The information in the operating instructions must be complied with during installation, commissioning and use. Enclosed with the product and available digitally on the product page at [elesa-ganter.com](https://www.elesa-ganter.com).

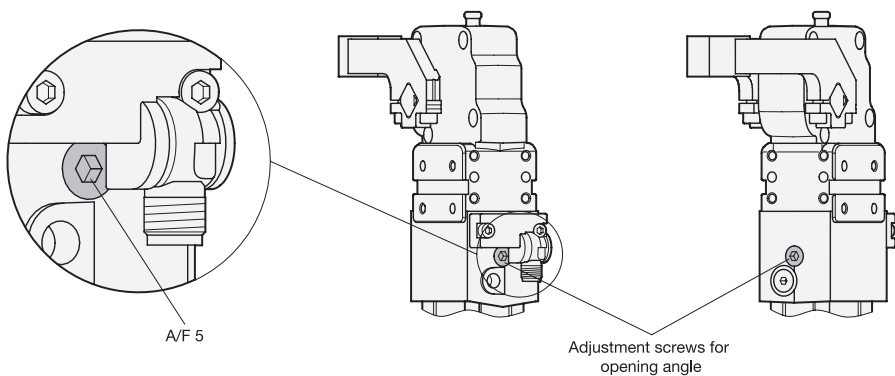
Operating Principle

In the clamping position, the knee lever mechanism is above the dead point and therefore secured by the self-locking feature. This makes the clamping force significantly higher than the tensioning force required to engage the clamp. Assuming no pneumatic actuation and no hand lever, the clamping arm can only be opened from this position by manually pressing the release pin.



Setting the Opening Angle

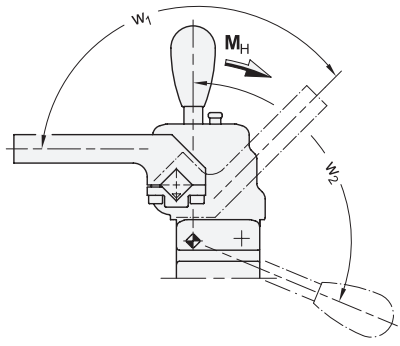
The opening angle of the clamping arm in the open position can be limited or set at any angle from 135° to 0°. To do this, fully drive in one of the two adjustment screws by hand using a hex key without ball end or by using a cordless screwdriver. Then rotate to set the opening angle.



Hand Lever Kinematics

w_1 Clamping arm opening angle	w_2 Hand lever angle		
	Size 25	Size 40	Size 63
0°	-3,77°	4,12°	2,65°
45°	53°	58,4°	56°
90°	109,5°	123,6°	94°
135°	130°	140°	110,7°

Size	M_H max. Torque limiting hand levers in Nm
25	26
40	32
63	40

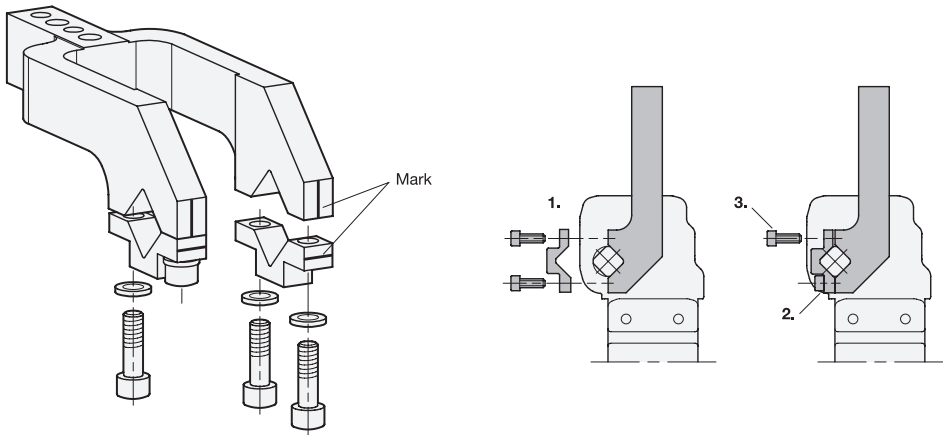


Clamping Arm Mounting Instructions

The clamping arms can be mounted on the square shaft of the power clamp in two angular positions offset by 90° and in a mirror-image configuration. This can offer better accessibility in the clamped or open state.

When mounting the clamping arms, the marks on the arm and on the clamp pieces must be situated on the same side. The screws that are located closer to the mark must be tightened first.

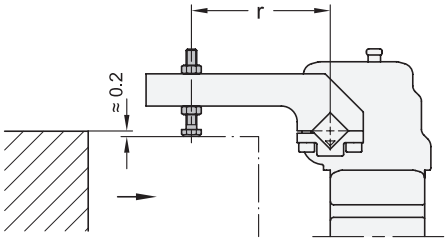
For power clamps of type S, the clamping arms are loosely enclosed.



Recommended Preload on the Clamping Arm / Tolerance Compensation

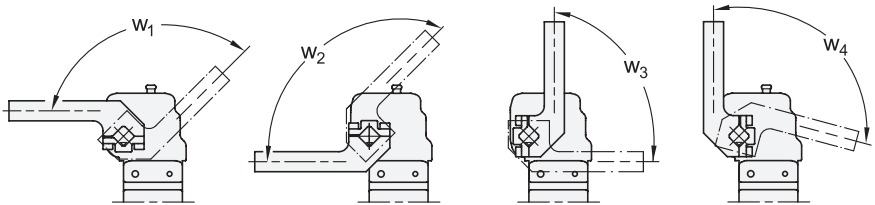
To reliably clamp the workpiece, pre-tensioning of the clamping arm is recommended. This should be about 0.2 mm closer the workpiece surface, measured based on the distance r from the pivot point of the clamping arm.

For varying workpiece dimensions, elastic clamping elements protect the power clamp mechanism and compensate for tolerances. Spring washers, elastomer springs, rubber thrust pads or the like can be used for this..



Maximum Opening Angle Depending on the Mounting Position of the Clamping Arm

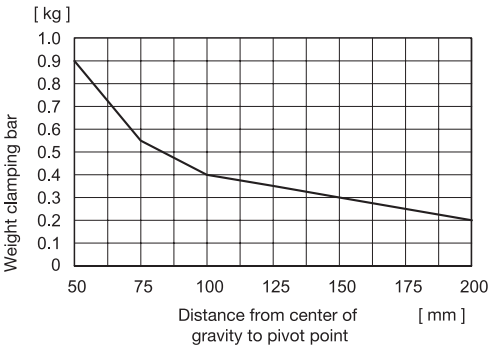
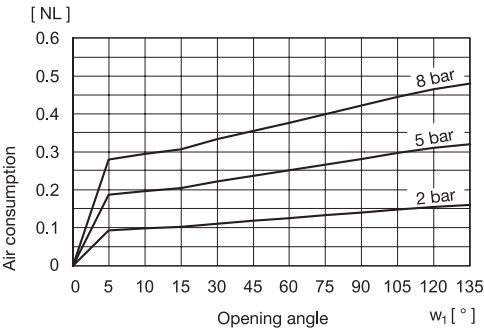
The maximum possible opening angle is limited depending on the mounting position and size of the clamping arm and must be set accordingly.



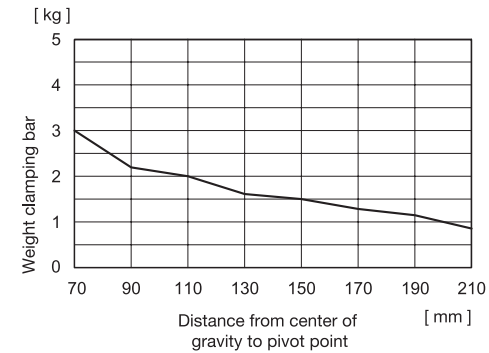
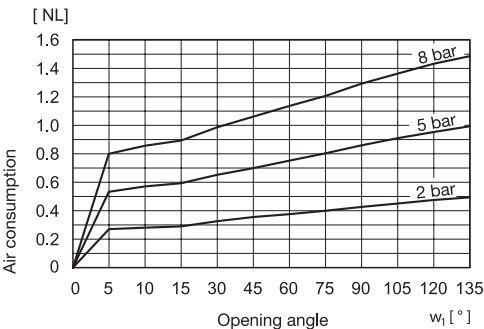
Size (Piston Ø)	w ₁	w ₂	w ₃	w ₄
25	135°	135°	90°	105°
40	135°	-	45°	125°
63	135°	135°	80°	115°

Air Consumption / Load Diagrams

Size 25



Size 40



Size 63

