400 SERIES Weld Head modules for automation



Model 400M Opposed electrode configuration for in-line welding.



Model 408SM Dual electrode configuration for parallel gap or series welding.

MULTIPLE BENEFITS FOR SYSTEMS INTEGRATION

The 400 Series are resistance weld head modules for miniature and microjoining applications. Designed for integration into automated assembly systems, two models are available: the **400M** for opposed welding and the **408SM** for parallel gap or series welding. Both models are constructed of high durability components for consistent, trouble-free operation. Their compact size benefits integration by minimizing space requirements while maximizing system design flexibility.

Durable	Exceeds 50 million cycles in harsh environmental tests	
Compact	Requires minimal space for integration	
Repeatable Triggering	Non-contact, opto-coupled firing switch for consistent triggering	
Minimize Downtime	Mount, set, and lock electrodes in seconds with quick-change holder	
Flexible Tooling	e Tooling Universal electrode holder accommodates 0.125 in., 0.250 in., 3.00 mm, 6.00 mm electrodes	
Easy Mounting	Pre-tapped metric and inch holes require no additional machining for mounting	

OPERATING FEATURES FOR PRECISION METALS JOINING

The 400 Series has a stroke of 0.2 inches (5 mm), ideal for automated welding of small and miniature parts. Its nominal stroke can be extended when integrated into an assembly system as defined by the driver.

The 400 Series has two weld force ranges, easily re-configured in less than sixty seconds via change of a spring. Weld force setting and adjustment are tool-free: the operator releases the anti-rotation adjustment system lock and rotates the knob to the desired setting (see picture at left).

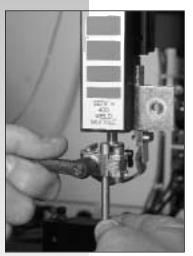
Triggering is enabled with a built-in force firing switch. Upon reaching the programmed force, the switch triggers the power supply to output current. This force dependent control assures consistent and repeatable welds. For complete specifications see the reverse side or contact Unitek Peco.

Unitek Peco is the leading supplier of products and technical expertise for precision resistance welding applications. In addition to the 400 Series, Unitek Peco manufactures power supplies, monitors, and weld heads. The company provides applications engineering and product integration support. Contact our Applications Development Lab for details.





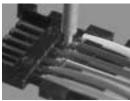
Tool-Free Weld Force Adjustment



Quick Change Electrode Holder

Precision Welding Applications for High Speed Automation







Unitek Peco has developed thousands of successful applications. Contact our Applications Development Lab for assistance.

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MECHANICAL AND ELECTRICAL Weld Force Range, Low Force Spr	2.0 to 12.0 lbs (9 to 53 N)	
Weld Force Range, Mid Force Spri	3.0 to 16.0 lbs (13 to 71 N)	
Differential Weld Force, Low Force	1.0 lbs (4.5 N)	
Differential Weld Force, High Force	1.4 lbs (6.2 N)	
Weld Force Repeatability	10%	
Weld Force Degradation from Spri	<5%	
Moving Mass during weld, no elec	0.31 lbs (0.14 kg)	
Minimum Follow-up Acceleration	6.0 g	
Maximum Weld Current Duty Cycl	1.25%	
Maximum Electrode Holder Opera	100°C	
Maximum Ambient Temperature	40°C	
Electrode Stroke	0.2 in (5 mm)	
Electrode Shank Diameters	3 mm, 0.125 in, 6 mm, 0.25 in	
Electrode Gap Adjustment Range	0.02 in to 0.59 in (0.5 to 15.0 mm)	
Minimum Tested Operating Life at	50 Million Cycles	
Opto Firing Switch Input	5-24 VDC, 35 mA Max	
Opto Firing Switch Output (Open C	5-24 VDC, 40 mA Max	
Minimum Stroke Required to Trigg	0.10 in (2.5 mm)	
Physical Characteristics	400M	408SM
Height	8.5 in (21.6 cm)	8.5 in (21.6 cm)
Width	1.56 in (4.0 cm)	2.59 in (6.6 cm)

RESISTANCE WELD HEAD MODULE DESIGNED FOR AUTOMATION

ORDERING INFORMATION				
MODEL	DESCRIPTION	INCLUDES		
400M	Single, opposed weld head module, with low force spring	"Ship Kit": Metric hex key set, SAE hex key set, electrodes, mid-force spring, electrode insertion stop collars, head module mounting screws and washer set, 73 in. (1.85 M) opto-firing switch cable and RJ 11 phone jack and box, manual		
408SM	Dual, parallel gap/series weld head module, with low force spring	"Ship Kit": Metric hex key set, electrodes, mid-force springs, head module mounting screws and washer set, 73 in. (1.85 M) opto-firing switch cable and RJ 11 phone jack and box, manual		

Your Local Representative

Depth

Weight

Throat Depth



Specifications subject to change without notice.

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2.93 in (7.4 cm)

1.45 in (3.7 cm)

1.71 lbs (0.8 kg)

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3.62 in (9.2 cm)

2.00 in (5.0 cm)

2.62 lbs (1.2 kg)

ISO 9001 Certified Company

12/04