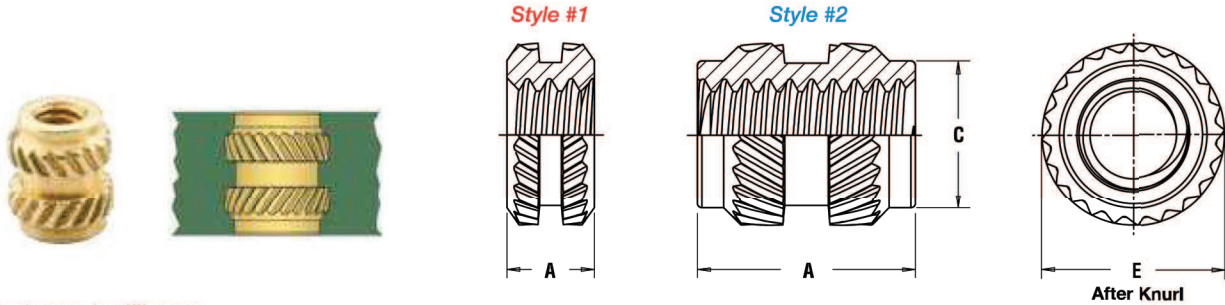


ULTRASONIC / HEAT STAKING INSERTS

microPEM® Symmetrical, Thru-Threaded, Type MSIB™

- Threads as small as M1.
- Symmetrical design eliminates the need for orientation.
- Provides excellent performance in wide range of plastics.



All dimensions are in millimeters.

| METRIC | Thread Size x Pitch | Type Brass | Thread Code | Length Code | A ±0.1 | E ± 0.1 | C Max. | Mounting Hole in Material | | |
|----------------------------|---------------------|---------------|--------------------|-------------|-----------|------------|-----------|---------------------------|-----------------|---------------------|
| | | | | | | | | Min. Wall Thickness (6) | Hole Depth Min. | Hole Diameter +0.05 |
| | | | | | | | | M1 x 0.25 ⁽³⁾ | MSIB | M1 |
| | | | 250 ⁽²⁾ | 2.5 | 1.75 | 3.27 | | | | |
| M1.2 x 0.25 ⁽³⁾ | MSIB | M1.2 | 100 ⁽¹⁾ | 1 | 2.1 | — | 0.7 | 1.77 | 1.75 | |
| | | | 250 ⁽²⁾ | 2.5 | | 1.75 | | 3.27 | | |
| M1.4 x 0.3 ⁽⁴⁾ | MSIB | M1.4 | 150 ⁽²⁾ | 1.5 | 2.5 | 2.15 | 0.8 | 2.27 | 2.15 | |
| | | | 300 ⁽²⁾ | 3 | | | | 3.77 | | |
| | | | 150 ⁽²⁾ | 1.5 | | | | 2.27 | | |
| M1.6 x 0.35 ⁽⁵⁾ | MSIB | M1.6 | 150 ⁽²⁾ | 1.5 | 2.5 | 2.15 | 0.8 | 2.27 | 2.15 | |
| | | | 300 ⁽²⁾ | 3 | | | | 3.77 | | |

- (1) **Style #1** - length codes less than 150
- (2) **Style #2** - length codes 150 and greater
- (3) Metric ISO 68-1, 5H
- (4) Metric ISO 68-1, 6H
- (5) Metric ASME B1.13M, 6H
- (6) Refers to wall diameter of boss as tested in ABS and polycarbonate.

microPEM®
FASTENERS



| METRIC | Type | Thread Code | Length Code | Test Sheet Material | | | |
|--------|------|-------------|-------------|---------------------|-----------------------|---------------|-----------------------|
| | | | | ABS | | Polycarbonate | |
| | | | | Pullout (N) | Torque-out (N•cm) (2) | Pullout (N) | Torque-out (N•cm) (2) |
| MSIB | M1 | | 100 | 50 | 3.5 | 50 | 4.5 |
| | | | 250 | 150 | 10 | 200 | 12 |
| MSIB | M1.2 | | 100 | 50 | 3.5 | 50 | 4.5 |
| | | | 250 | 150 | 10 | 200 | 12 |
| MSIB | M1.4 | | 150 | 100 | 15 | 140 | 15 |
| | | | 300 | 330 | 30 | 400 | 30 |
| MSIB | M1.6 | | 150 | 100 | 15 | 140 | 15 |
| | | | 300 | 330 | 30 | 400 | 30 |

- (1) The values reported are averages for ultrasonically inserted inserts when all installation specifications and procedures are followed. Variations in mounting hole size, sheet material and installation procedure will affect results. Performance testing of this product in your application is recommended. Samples can be provided for this purpose.
- (2) Torque-out performance will depend on the strength and type of screw being used. In most cases, the screw threads will fail before the insert threads. For testing purposes, inserts were installed using heat stake equipment into a flat sheet.

