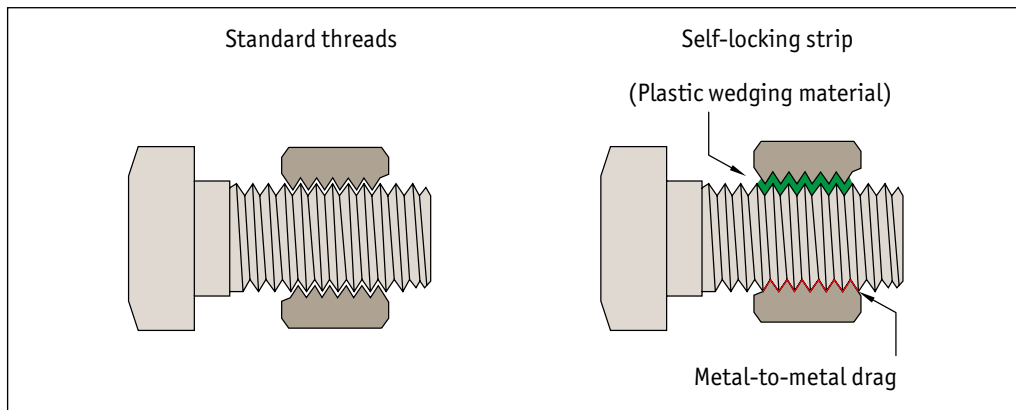


This type of fastener is the only fastener that retains its locking torque independent of an axial load. When pre-load is lost, the prevailing torque fastener can prevent the loosening of an assembly subjected to continued shock or vibration.

The nylon strip wedges the fastener against the opposite of the locking device, causing metal-to-metal drag.



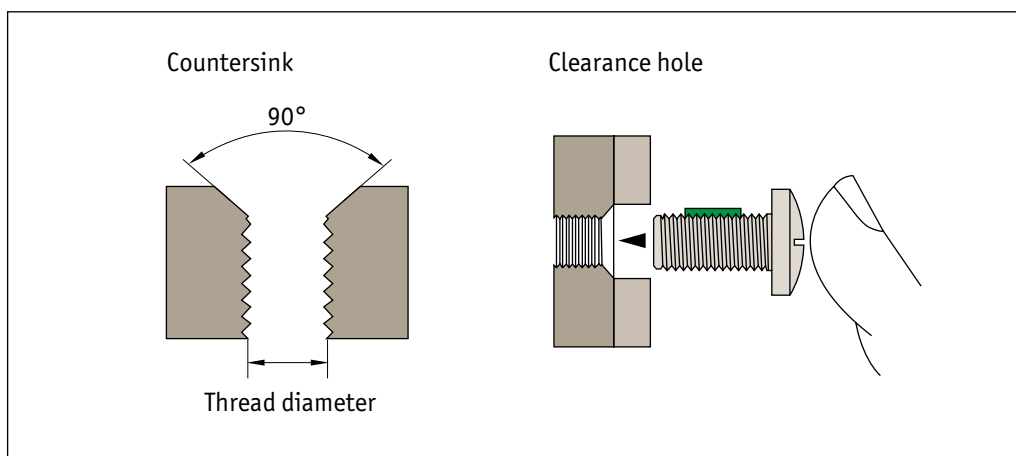
A resilient polymer (generally nylon) strip is inserted into a precisely machined slot that is milled into the thread. The strips are typically positioned one to three threads back from the end of the fastener to assure ease of starting.

When assembled with a mating part the strip is compressed and this provides a locking action in the thread. The locking strip is held in place on the thread without the use of adhesives or thread distortion. This results in a reusable fastener that is both locking and repeatedly adjustable.

These self-locking fasteners are produced to IFI 524 standard (requiring a re-usability of up to 15 on/off cycles). The strips will not dry, shrink or lose resiliency when exposed to commercial solvents, alcohol, oil etc.

Standard nylon temperature range (-50°C to $+120^{\circ}\text{C}$). Other materials available which can offer -250°C to $+300^{\circ}\text{C}$ (with lower reusability cycles).

We recommend a countersunk or counter-bored clearance hole to aid installation.

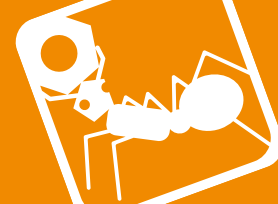


Plating

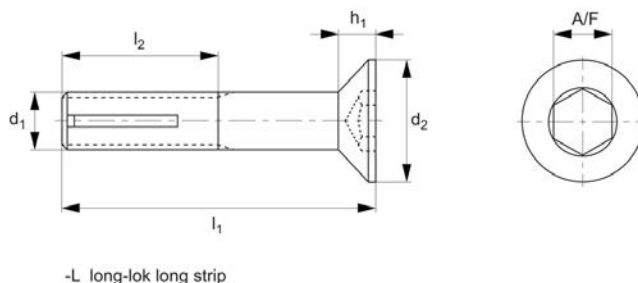
Locking inserts can be damaged by some plating processes or surface treatments so should never be attempted after user installation.

Please advise Automation components of any plating requirements when ordering so that the appropriate process can be applied.

Locking insert patches should never be removed by the end user. Removal and replacement will destroy the effectiveness of the insert.



P0112



Material

Stainless steel A2, with nylon locking patch.

A4 available on request.

Technical Notes

To DIN 7991, ISO 10642, with nylon locking patch. Vibration proof.

Standard green locking patch. Breakaway torque values are complex and can be calculated on request.

Can be manufactured to MIL spec on request (MIL-DTL-18240 and NAS1283).

Tips

Surface finishes such as cadum plating,

nickel plating, armalloy coating, black oxide coating - all available on request. Due to the wide range of sizes, material grades and finishes, these parts are manufactured on demand - minimum batch size is 100 pieces.

Order No.	d ₁	l ₁	d ₂	l ₂	h ₁	A/F
P0112.030-006L	M 3	6	6	-	1.7	2
P0112.030-008L	M 3	8	6	-	1.7	2
P0112.030-010L	M 3	10	6	-	1.7	2
P0112.030-012L	M 3	12	6	-	1.7	2
P0112.030-014L	M 3	14	6	-	1.7	2
P0112.030-016L	M 3	16	6	-	1.7	2
P0112.030-018L	M 3	18	6	-	1.7	2
P0112.030-020L	M 3	20	6	-	1.7	2
P0112.040-006L	M 4	6	8	-	2.3	2.5
P0112.040-008L	M 4	8	8	-	2.3	2.5
P0112.040-010L	M 4	10	8	-	2.3	2.5
P0112.040-012L	M 4	12	8	-	2.3	2.5
P0112.040-014L	M 4	14	8	-	2.3	2.5
P0112.040-016L	M 4	16	8	-	2.3	2.5
P0112.040-018L	M 4	18	8	-	2.3	2.5
P0112.040-020L	M 4	20	8	-	2.3	2.5
P0112.040-025L	M 4	25	8	-	2.3	2.5
P0112.040-030L	M 4	30	8	20	2.3	2.5
P0112.040-035L	M 4	35	8	20	2.3	2.5
P0112.040-040L	M 4	40	8	20	2.3	2.5
P0112.040-045L	M 4	45	8	20	2.3	2.5
P0112.040-050L	M 4	50	8	20	2.3	2.5
P0112.040-060L	M 4	60	8	20	2.3	2.5
P0112.050-006L	M 5	6	10	-	2.8	3
P0112.050-008L	M 5	8	10	-	2.8	3
P0112.050-010L	M 5	10	10	-	2.8	3
P0112.050-012L	M 5	12	10	-	2.8	3
P0112.050-014L	M 5	14	10	-	2.8	3
P0112.050-016L	M 5	16	10	-	2.8	3
P0112.050-018L	M 5	18	10	-	2.8	3
P0112.050-020L	M 5	20	10	-	2.8	3



Self-Locking Countersunk Screws

Hex. socket - nylon strip

Self Locking
Screws

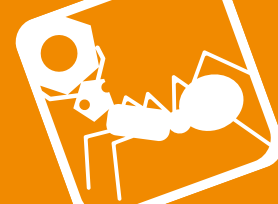
Order No.	d ₁	l ₁	d ₂	l ₂	h ₁	A/F
P0112.050-022L	M 5	22	10	-	2.8	3
P0112.050-025L	M 5	25	10	-	2.8	3
P0112.050-030L	M 5	30	10	-	2.8	3
P0112.050-035L	M 5	35	10	22	2.8	3
P0112.050-040L	M 5	40	10	22	2.8	3
P0112.050-045L	M 5	45	10	22	2.8	3
P0112.050-050L	M 5	50	10	22	2.8	3
P0112.050-060L	M 5	60	10	22	2.8	3
P0112.050-070L	M 5	70	10	22	2.8	3
P0112.050-080L	M 5	80	10	22	2.8	3
P0112.050-090L	M 5	90	10	22	2.8	3
P0112.050-100L	M 5	60	10	22	2.8	3
P0112.060-008L	M 6	8	12	-	3.3	4
P0112.060-010L	M 6	10	12	-	3.3	4
P0112.060-012L	M 6	12	12	-	3.3	4
P0112.060-014L	M 6	14	12	-	3.3	4
P0112.060-016L	M 6	16	12	-	3.3	4
P0112.060-018L	M 6	18	12	-	3.3	4
P0112.060-020L	M 6	20	12	-	3.3	4
P0112.060-022L	M 6	22	12	-	3.3	4
P0112.060-025L	M 6	25	12	-	3.3	4
P0112.060-030L	M 6	30	12	-	3.3	4
P0112.060-035L	M 6	35	12	-	3.3	4
P0112.060-040L	M 6	40	12	24	3.3	4
P0112.060-045L	M 6	45	12	24	3.3	4
P0112.060-050L	M 6	50	12	24	3.3	4
P0112.060-055L	M 6	55	12	24	3.3	4
P0112.060-060L	M 6	60	12	24	3.3	4
P0112.060-070L	M 6	70	12	24	3.3	4
P0112.060-080L	M 6	80	12	24	3.3	4
P0112.060-090L	M 6	90	12	24	3.3	4
P0112.060-100L	M 6	100	12	24	3.3	4
P0112.080-010L	M 8	10	16	-	4.4	5
P0112.080-012L	M 8	12	16	-	4.4	5
P0112.080-014L	M 8	14	16	-	4.4	5
P0112.080-016L	M 8	16	16	-	4.4	5
P0112.080-018L	M 8	18	16	-	4.4	5
P0112.080-020L	M 8	20	16	-	4.4	5
P0112.080-022L	M 8	22	16	-	4.4	5
P0112.080-025L	M 8	25	16	-	4.4	5
P0112.080-030L	M 8	30	16	-	4.4	5
P0112.080-035L	M 8	35	16	-	4.4	5
P0112.080-040L	M 8	40	16	-	4.4	5
P0112.080-045L	M 8	45	16	-	4.4	5
P0112.080-050L	M 8	50	16	28	4.4	5
P0112.080-055L	M 8	55	16	28	4.4	5
P0112.080-060L	M 8	60	16	28	4.4	5
P0112.080-065L	M 8	65	16	28	4.4	5
P0112.080-070L	M 8	70	16	28	4.4	5
P0112.080-075L	M 8	75	16	28	4.4	5
P0112.080-080L	M 8	80	16	28	4.4	5
P0112.080-090L	M 8	90	16	28	4.4	5
P0112.080-100L	M 8	100	16	28	4.4	5
P0112.100-016L	M10	16	20	-	5.5	6
P0112.100-020L	M10	20	20	-	5.5	6
P0112.100-025L	M10	25	20	-	5.5	6
P0112.100-030L	M10	30	20	-	5.5	6
P0112.100-035L	M10	35	20	-	5.5	6
P0112.100-040L	M10	40	20	-	5.5	6
P0112.100-045L	M10	45	20	-	5.5	6
P0112.100-050L	M10	50	20	-	5.5	6
P0112.100-055L	M10	55	20	32	5.5	6
P0112.100-060L	M10	60	20	32	5.5	6
P0112.100-065L	M10	65	20	32	5.5	6
P0112.100-070L	M10	70	20	32	5.5	6
P0112.100-075L	M10	75	20	32	5.5	6
P0112.100-080L	M10	80	20	32	5.5	6
P0112.100-090L	M10	90	20	32	5.5	6
P0112.100-100L	M10	100	20	32	5.5	6

SELF LOCKING SCREWS

Self Locking Screws

Self-Locking Countersunk Screws

Hex. socket - nylon strip



SELF-LOCKING SCREWS

Order No.	d ₁	l ₁	d ₂	l ₂	h ₁	A/F
P0112.120-020L	M12	20	24	-	6.5	8
P0112.120-025L	M12	25	24	-	6.5	8
P0112.120-030L	M12	30	24	-	6.5	8
P0112.120-035L	M12	35	24	-	6.5	8
P0112.120-040L	M12	40	24	-	6.5	8
P0112.120-045L	M12	45	24	-	6.5	8
P0112.120-050L	M12	50	24	-	6.5	8
P0112.120-055L	M12	55	24	-	6.5	8
P0112.120-060L	M12	60	24	-	6.5	8
P0112.120-065L	M12	65	24	36	6.5	8
P0112.120-070L	M12	70	24	36	6.5	8
P0112.120-075L	M12	75	24	36	6.5	8
P0112.120-080L	M12	80	24	36	6.5	8
P0112.120-090L	M12	90	24	36	6.5	8
P0112.120-100L	M12	100	24	36	6.5	8
P0112.160-025L	M16	25	30	-	7.5	10
P0112.160-030L	M16	30	30	-	7.5	10
P0112.160-035L	M16	35	30	-	7.5	10
P0112.160-040L	M16	40	30	-	7.5	10
P0112.160-045L	M16	45	30	-	7.5	10
P0112.160-050L	M16	50	30	-	7.5	10
P0112.160-055L	M16	55	30	-	7.5	10
P0112.160-060L	M16	60	30	-	7.5	10
P0112.160-065L	M16	65	30	-	7.5	10
P0112.160-070L	M16	70	30	-	7.5	10
P0112.160-080L	M16	80	30	44	7.5	10
P0112.160-090L	M16	90	30	44	7.5	10
P0112.160-100L	M16	100	30	44	7.5	10
P0112.200-040L	M20	40	36	-	8.5	12
P0112.200-045L	M20	45	36	-	8.5	12
P0112.200-050L	M20	50	36	-	8.5	12
P0112.200-060L	M20	60	36	-	8.5	12
P0112.200-070L	M20	70	36	-	8.5	12
P0112.200-080L	M20	80	36	-	8.5	12
P0112.200-090L	M20	90	36	-	8.5	12
P0112.200.100L	M20	100	36	52	8.5	12

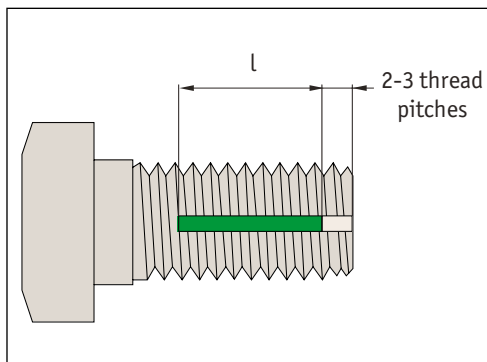
Strip materials

Materials	Colour code	Operating Temperature Range	Material Specification
Polycap Nylon	Green	-50°C to +120°C	ASTM-D-4066
Kel-F®	Blue	-200°C to +200°C	AMS 3650
Vespe®	Brown	-250°C to +300°C	-
Hot-Lok™	Silver	-250°C to +650°C	-

*These inserts are not recommended for reuse. Consult Automotion Components for technical details.

Standard "L" dimensions

Thread size	Approx "L" insert length
1,5	3,5
1,8	3,5
2,2	4,5
2,5	4,5
3,0	6,0
3,5	7,5
4,0	8,5
5,0	8,5
6,5	11,0
8,0	10,7
9,5	12,0
11,0	13,5
12,5	14,0
14,0	14,5
16,0	16,0
19,0	19,0
22,0	19,0
25,0	19,0



Insert length can be affected by overall length of thread.

Self-Locking Fasteners from Automotion Components