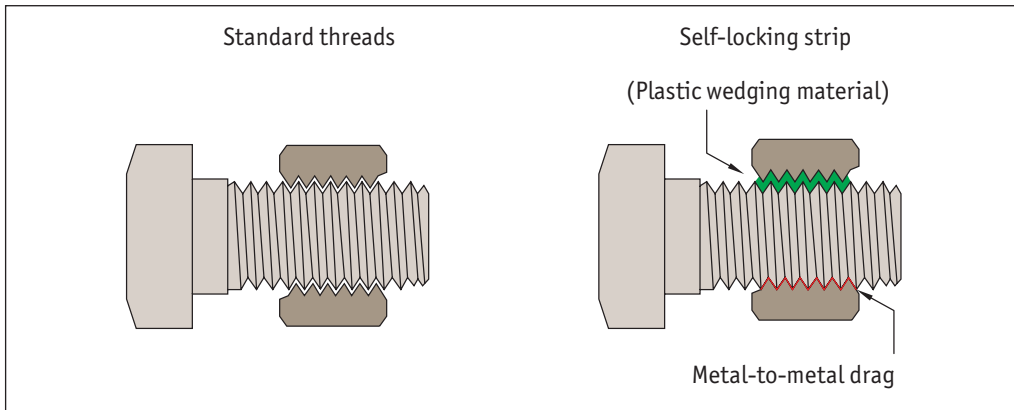


This type of fastener is the only fastener that retains its locking torque independent of an axial load. When pre-load is lost, the prevailing torque fastener can prevent the loosening of an assembly subjected to continued shock or vibration.

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



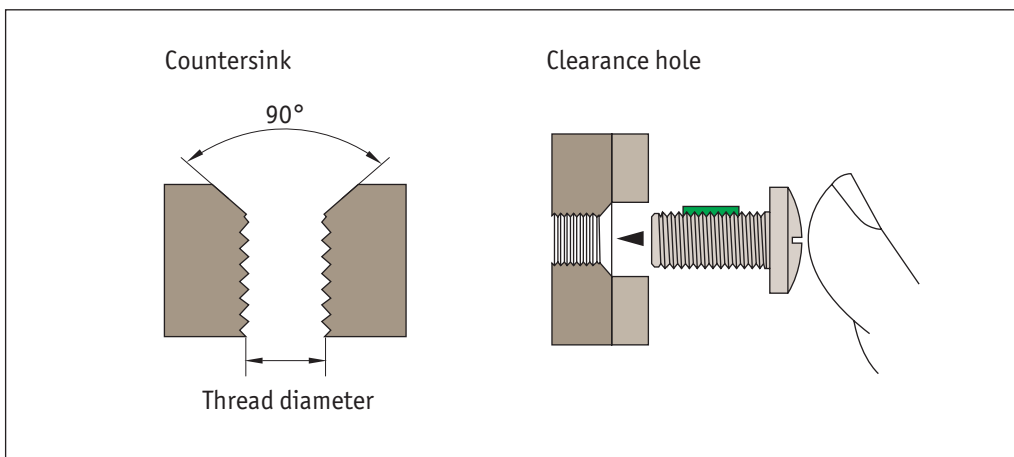
A resilient polymer (generally nylon) strip is inserted into a precisely machined slot that is milled into the thread. The strips are typically positioned one to three threads back from the end of the fastener to assure ease of starting.

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°C). Other materials available which can offer -250°C to +300°C (with lower reusability cycles).

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



Plating

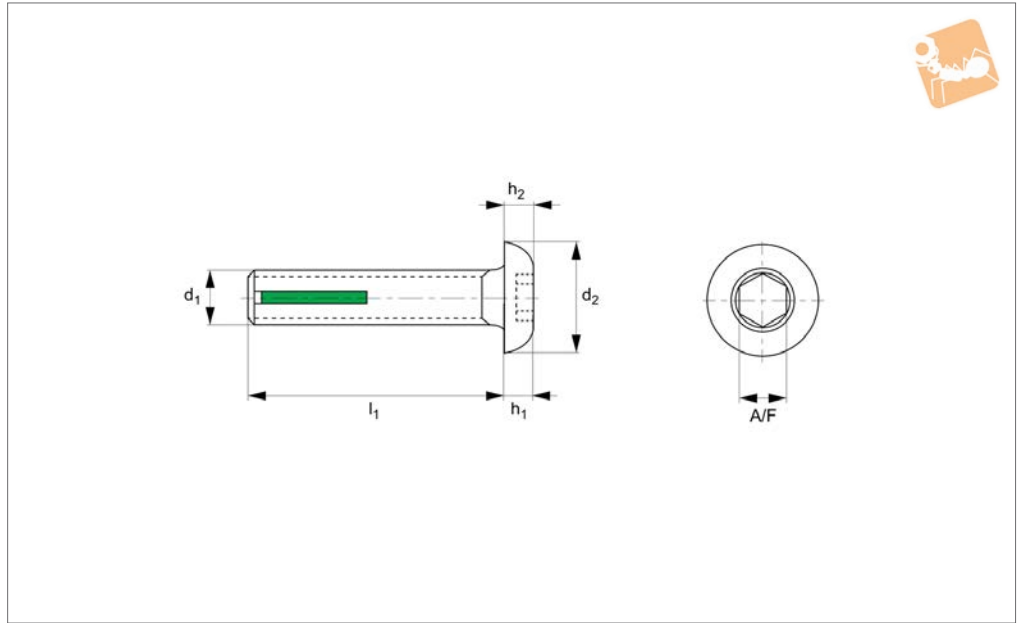
Locking inserts can be damaged by some plating processes or surface treatments so should never be attempted after user installation.

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.



P0111



Material

Stainless steel A2, with nylon locking patch.
A4 available on request.

Technical Notes

To ISO 7380 with nylon locking patch.
Vibration proof.
Threaded within 2,5 x pitch of head.

Screw to DIN 912 with locking patch.
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 cadmium 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	h ₁	h ₂	A/F
P0111.030-004L	M 3	4	5.7	1.65	1.04	2
P0111.030-005L	M 3	5	5.7	1.65	1.04	2
P0111.030-006L	M 3	6	5.7	1.65	1.04	2
P0111.030-008L	M 3	8	5.7	1.65	1.04	2
P0111.030-010L	M 3	10	5.7	1.65	1.04	2
P0111.030-012L	M 3	12	5.7	1.65	1.04	2
P0111.030-016L	M 3	16	5.7	1.65	1.04	2
P0111.030-020L	M 3	20	5.7	1.65	1.04	2
P0111.030-025L	M 3	25	5.7	1.65	1.04	2
P0111.030-030L	M 3	30	5.7	1.65	1.04	2
P0111.030-035L	M 3	35	5.7	1.65	1.04	2
P0111.030-040L	M 3	40	5.7	1.65	1.04	2
P0111.040-005L	M 4	5	7.6	2.2	1.3	2.5
P0111.040-006L	M 4	6	7.6	2.2	1.3	2.5
P0111.040-008L	M 4	8	7.6	2.2	1.3	2.5
P0111.040-010L	M 4	10	7.6	2.2	1.3	2.5
P0111.040-012L	M 4	12	7.6	2.2	1.3	2.5
P0111.040-014L	M 4	14	7.6	2.2	1.3	2.5
P0111.040-016L	M 4	16	7.6	2.2	1.3	2.5
P0111.040-020L	M 4	20	7.6	2.2	1.3	2.5
P0111.040-025L	M 4	25	7.6	2.2	1.3	2.5
P0111.040-030L	M 4	30	7.6	2.2	1.3	2.5
P0111.040-035L	M 4	35	7.6	2.2	1.3	2.5
P0111.040-040L	M 4	40	7.6	2.2	1.3	2.5
P0111.040-045L	M 4	45	7.6	2.2	1.3	2.5
P0111.040-050L	M 4	40	7.6	2.2	1.3	2.5
P0111.050-005L	M 5	5	9.5	2.75	1.56	3
P0111.050-006L	M 5	6	9.5	2.75	1.56	3
P0111.050-008L	M 5	8	9.5	2.75	1.56	3



Self-Locking Button Head Screws

Hex button head - nylon strip

Self Locking
Screws



Order No.	d ₁	l ₁	d ₂	h ₁	h ₂	A/F
P0111.050-010L	M 5	10	9.5	2.75	1.56	3
P0111.050-012L	M 5	12	9.5	2.75	1.56	3
P0111.050-014L	M 5	14	9.5	2.75	1.56	3
P0111.050-016L	M 5	16	9.5	2.75	1.56	3
P0111.050-020L	M 5	20	9.5	2.75	1.56	3
P0111.050-025L	M 5	25	9.5	2.75	1.56	3
P0111.050-030L	M 5	30	9.5	2.75	1.56	3
P0111.050-035L	M 5	35	9.5	2.75	1.56	3
P0111.050-040L	M 5	40	9.5	2.75	1.56	3
P0111.050-045L	M 5	45	9.5	2.75	1.56	3
P0111.050-050L	M 5	50	9.5	2.75	1.56	3
P0111.050-055L	M 5	55	9.5	2.75	1.56	3
P0111.050-060L	M 5	60	9.5	2.75	1.56	3
P0111.060-008L	M 6	8	10.5	3.3	2.08	4
P0111.060-010L	M 6	10	10.5	3.3	2.08	4
P0111.060-012L	M 6	12	10.5	3.3	2.08	4
P0111.060-014L	M 6	14	10.5	3.3	2.08	4
P0111.060-016L	M 6	16	10.5	3.3	2.08	4
P0111.060-020L	M 6	20	10.5	3.3	2.08	4
P0111.060-025L	M 6	25	10.5	3.3	2.08	4
P0111.060-030L	M 6	30	10.5	3.3	2.08	4
P0111.060-035L	M 6	35	10.5	3.3	2.08	4
P0111.060-040L	M 6	40	10.5	3.3	2.08	4
P0111.060-045L	M 6	45	10.5	3.3	2.08	4
P0111.060-050L	M 6	50	10.5	3.3	2.08	4
P0111.060-055L	M 6	55	10.5	3.3	2.08	4
P0111.060-060L	M 6	60	10.5	3.3	2.08	4
P0111.060-070L	M 6	70	10.5	3.3	2.08	4
P0111.080-010L	M 8	10	14	4.4	2.6	5
P0111.080-012L	M 8	12	14	4.4	2.6	5
P0111.080-014L	M 8	14	14	4.4	2.6	5
P0111.080-016L	M 8	16	14	4.4	2.6	5
P0111.080-020L	M 8	20	14	4.4	2.6	5
P0111.080-025L	M 8	25	14	4.4	2.6	5
P0111.080-030L	M 8	30	14	4.4	2.6	5
P0111.080-035L	M 8	35	14	4.4	2.6	5
P0111.080-040L	M 8	40	14	4.4	2.6	5
P0111.080-045L	M 8	45	14	4.4	2.6	5
P0111.080-050L	M 8	50	14	4.4	2.6	5
P0111.080-055L	M 8	55	14	4.4	2.6	5
P0111.080-060L	M 8	60	14	4.4	2.6	5
P0111.080-070L	M 8	70	14	4.4	2.6	5
P0111.080-080L	M 8	80	14	4.4	2.6	5
P0111.100-012L	M10	12	17.5	5.5	3.12	6
P0111.100-016L	M10	16	17.5	5.5	3.12	6
P0111.100-020L	M10	20	17.5	5.5	3.12	6
P0111.100-025L	M10	25	17.5	5.5	3.12	6
P0111.100-030L	M10	30	17.5	5.5	3.12	6
P0111.100-035L	M10	35	17.5	5.5	3.12	6
P0111.100-040L	M10	40	17.5	5.5	3.12	6
P0111.100-045L	M10	45	17.5	5.5	3.12	6
P0111.100-050L	M10	50	17.5	5.5	3.12	6
P0111.100-055L	M10	55	17.5	5.5	3.12	6
P0111.100-060L	M10	60	17.5	5.5	3.12	6
P0111.100-070L	M10	70	17.5	5.5	3.12	6
P0111.100-080L	M10	80	17.5	5.5	3.12	6
P0111.120-020L	M12	20	21	6.6	4.16	8
P0111.120-025L	M12	25	21	6.6	4.16	8
P0111.120-030L	M12	30	21	6.6	4.16	8
P0111.120-035L	M12	35	21	6.6	4.16	8
P0111.120-040L	M12	40	21	6.6	4.16	8
P0111.120-045L	M12	45	21	6.6	4.16	8
P0111.120-050L	M12	50	21	6.6	4.16	8
P0111.120-055L	M12	55	21	6.6	4.16	8
P0111.120-060L	M12	60	21	6.6	4.16	8
P0111.120-070L	M12	70	21	6.6	4.16	8
P0111.120-080L	M12	80	21	6.6	4.16	8

SELF LOCKING SCREWS



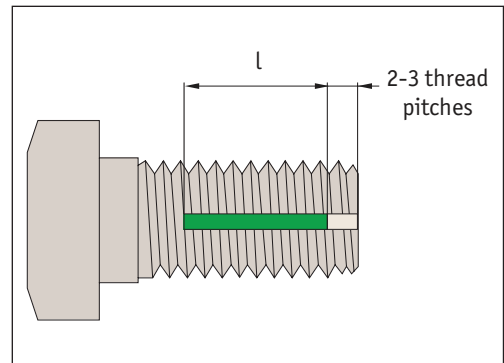
Strip materials

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
Vespel®	Brown	-250°C to +300°C	-
Hot-Lok™**	Silver	-250°C to +650°C	-

*These inserts are not recommended for reuse. Consult Automation 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 Automation Components

SELF-LOCKING SCREWS