

DIN to ISO Fastener Migration — What Changed Size by Size (DIN 931/933 !' ISO 4014/4017, DIN 912 !' ISO 4762, DIN 934 !' ISO 4032, DIN 125 !' ISO 7089, DIN 7991 !' ISO 10642 and 40 more)



Cross-reference · ISO 4014 / ISO 4017 / ISO 4032 / ISO 4762 / ISO 7089 · cBallast Technical Sourcing · issued 2026-09-15 · Catalogue data: Bufab (Värnamo, Sweden) · cballast.com/documents/din-to-iso-fastener-migration-what-changed

Most DIN fastener standards were withdrawn between the 1990s and 2010s once the corresponding ISO standard existed, and the ISO documents were adopted in Germany as DIN EN ISO. For the majority of parts the ISO version is dimensionally identical and the two designations can be treated as interchangeable. The exceptions are well known but still cause spanner and socket mismatches on site: ISO reduced the hexagon across-flats of M10, M12 and M14 by 1 mm and increased M22 by 2 mm, made hexagon nuts slightly taller, and revised some thread lengths. Where no ISO equivalent exists, the DIN standard remains current and continues to be used worldwide.

DIN	ISO	Part	Dimensional change
DIN 931	ISO 4014	Hexagon bolt, partially threaded	Across-flats M10 17!16, M12 19!18, M14 22!21, M22 32!34; thread length b unchanged
DIN 933	ISO 4017	Hexagon screw, fully threaded	Same across-flats changes as DIN 931/ISO 4014
DIN 960 / 961	ISO 8765 / 8676	Hexagon bolt/screw, fine pitch	Same across-flats changes
DIN 6921	ISO 4162 (small series) / EN 1665	Hexagon flange bolt	Across-flats M10 15! (ISO 4162 uses 15 on M10, 18 on M12); check per size
DIN 912	ISO 4762	Socket head cap screw	Head and key sizes unchanged; thread length b and some transitional radii differ slightly
DIN 7984	— (stays DIN)	Low-head socket cap screw	No ISO equivalent
DIN 6912	— (stays DIN)	Low-head socket cap screw with pilot recess	No ISO equivalent
DIN 7991	ISO 10642	Countersunk socket screw	Head diameter and key unchanged; M12 key 8 in both
DIN 7380	ISO 7380-1 / -2	Button head socket screw (plain / flanged)	Identical
DIN 913 / 914 / 915 / 916	ISO 4026 / 4027 / 4028 / 4029	Set screws: flat / cone / dog / cup point	Identical dimensions; class 45H retained
DIN 934	ISO 4032 (style 1)	Hexagon nut	Across-flats M10 17!16, M12 19!18, M14 22!21, M22 32!34; nut height increased (see table below)
DIN 439	ISO 4035	Thin hexagon nut	Same across-flats changes; class 04/05
DIN 985	ISO 10511 (thin) / ISO 7040 (normal height)	Prevailing-torque nut, nylon insert	DIN 985 height lies between the two ISO types; across-flats changes apply
DIN 982	ISO 7040	Prevailing-torque nut, nylon insert, full height	Across-flats changes apply
DIN 980	ISO 7042 / ISO 10513	All-metal prevailing-torque nut	Across-flats changes apply
DIN 6923	ISO 4161 / EN 1661	Hexagon flange nut	Flange diameter and height differ slightly by size
DIN 1587	— (stays DIN)	Domed cap nut	No ISO equivalent
DIN 315	— (stays DIN)	Wing nut	No ISO equivalent
DIN 125	ISO 7089 (200 HV) / ISO 7090 (chamfered)	Plain washer, normal series	Dimensions identical for M3–M36; hardness now 200 HV or 300 HV classes
DIN 126	ISO 7091 (100 HV)	Plain washer, product grade C	Identical
DIN 433	ISO 7092	Plain washer, small series	Identical
DIN 9021	ISO 7093-1	Plain washer, large series	Identical
DIN 127 / DIN 128 / DIN 7980	— (stay DIN)	Spring lock washers	No ISO equivalent (spring lock washers are not recognised by ISO as locking elements)
DIN 6798 / 6797	— (stay DIN)	Serrated / tooth lock washers	No ISO equivalent
DIN 6796	— (stays DIN)	Conical spring washer	No ISO equivalent
DIN 2093	— (stays DIN)	Disc spring	No ISO equivalent
DIN 471 / 472	— (stay DIN)	Retaining rings for shafts / bores	No ISO equivalent in general use
DIN 6799	— (stays DIN)	E-clip retaining washer	No ISO equivalent
DIN 7	ISO 2338	Parallel pin (dowel), m6 / h8	Identical
DIN 6325	ISO 8734	Hardened dowel pin	Identical

DIN 1481	ISO 8752	Slotted spring pin, heavy duty	Identical
DIN 7346	ISO 13337	Slotted spring pin, light duty	Identical
DIN 7343 / 7344	ISO 8750 / 8748	Spiral pin, standard / heavy	Identical
DIN 94	ISO 1234	Split pin (cotter pin)	Identical
DIN 1 / DIN 258	ISO 2339 / ISO 8737	Taper pin, plain / threaded	Identical
DIN 603	ISO 8677	Carriage bolt (mushroom head, square neck)	Identical
DIN 580 / 582	— (stay DIN)	Lifting eye bolt / eye nut	No ISO equivalent; DIN 580 remains the reference (CE-marked variants to the Machinery Directive)
DIN 975 / 976	— (stay DIN)	Threaded rod 1 m / 2 m, stud	No ISO equivalent
DIN 84	ISO 1207	Slotted cheese head screw	Identical
DIN 85	ISO 1580	Slotted pan head screw	Identical
DIN 963 / 964	ISO 2009 / ISO 2010	Slotted countersunk / raised countersunk	Identical
DIN 7985	ISO 7045	Pan head screw, cross recess (H/Z)	Identical
DIN 965 / 966	ISO 7046 / ISO 7047	Countersunk / raised countersunk, cross recess	Identical
DIN 7981 / 7982 / 7983	ISO 7049 / ISO 7050 / ISO 7051	Tapping screws: pan / countersunk / raised countersunk, cross recess	Identical (ST thread ISO 1478)
DIN 7971 / 7972 / 7973	ISO 1481 / ISO 1482 / ISO 1483	Tapping screws, slotted	Identical
DIN 7976	ISO 1479	Hexagon head tapping screw	Identical
DIN 7504	ISO 15480 / 15481 / 15482	Self-drilling screws (hex flange / pan / countersunk)	Identical
DIN 660 / 661	ISO 1051	Solid rivets, round / countersunk head	Identical
DIN 7337	ISO 15977–15984	Blind rivets	ISO series split by head form and material
DIN 908 / 910 / 906	— (stay DIN)	Screw plugs (socket / hexagon head / conical)	No ISO equivalent
DIN 988	— (stays DIN)	Shim ring / supporting ring	No ISO equivalent

Across-flats (mm) — DIN vs ISO for hexagon bolts and nuts

M5: 8 / 8. M6: 10 / 10. M8: 13 / 13. M10: 17 / 16. M12: 19 / 18. M14: 22 / 21. M16: 24 / 24. M18: 27 / 27. M20: 30 / 30. M22: 32 / 34. M24: 36 / 36. M27: 41 / 41. M30: 46 / 46. M36: 55 / 55. (DIN 931/933/934 vs ISO 4014/4017/4032.) Consequence: a 17 mm socket does not fit an ISO M10 bolt, and a 16 mm wrench slips on a DIN M10 nut. Mixed sets on one machine are common; specify ISO for new drawings and keep both socket sizes in the kit.

Nut height (mm) — DIN 934 vs ISO 4032 style 1

M5: 4.0 / 4.7. M6: 5.0 / 5.2. M8: 6.5 / 6.8. M10: 8.0 / 8.4. M12: 10.0 / 10.8. M16: 13.0 / 14.8. M20: 16.0 / 18.0. M24: 19.0 / 21.5. M30: 24.0 / 25.6. M36: 29.0 / 31.0. ISO nuts are taller (m "H 0.9 d) to meet the ISO 898-2 proof-load requirement; where stack height or thread protrusion was designed around DIN 934, check that the ISO nut still fully engages and clears.

Interchangeability rules

- Bolts/screws — an ISO 4014 bolt replaces a DIN 931 bolt in the joint (same thread, length, class, head height) but needs the ISO wrench size on M10/M12/M14/M22.
- Nuts — an ISO 4032 nut replaces DIN 934 provided the extra height (up to 2 mm on M20) fits; class requirements unchanged.
- Washers — ISO 7089/7090 replace DIN 125 one-for-one; specify 200 HV (standard) or 300 HV (for 10.9 joints) as DIN 125 did not fix hardness.
- Socket screws — ISO 4762 and DIN 912 are interchangeable in practice; head and key sizes are identical.
- Withdrawn without ISO replacement — DIN 127, DIN 6798, DIN 471/472, DIN 580, DIN 975/976, DIN 1587, DIN 315, DIN 2093, DIN 908/910 remain valid DIN standards and are still manufactured and stocked.

Drawing and purchasing practice

Quote the ISO number on new drawings and orders, with the DIN number in brackets during transition ("ISO 4017 (DIN 933)"). Add the property class, finish and, for nuts, the ISO 4032 style. Where a legacy drawing calls DIN 931 M12 and the spare is supplied as ISO 4014, the only visible difference is the 18 mm hexagon; the mechanical properties, thread and length are the same. Treat DIN and ISO part numbers as one stock item only after the across-flats difference has been accepted by the maintenance team that carries the tools.

Values are nominal reference data compiled from the cited standards and supplier catalogue data (Bufab). Confirm against the controlling standard revision, the manufacturer's data sheet and the joint calculation before procurement or assembly. © cBallast 2026 · cballast.com