



# ***Power Sockets & Bits***

**2022  
2023**

**ZEMO**  
[www.zemo-tools.de](http://www.zemo-tools.de)



# Power Sockets & Screwdriver Bits



## About us

Decades of experience of our torque specialists, combined with recognised high-quality industrial tools and torque systems, support the efficiency of your manufacturing processes through controlled bolting.

Selected assembly tools and innovative measuring technology in leading industrial quality are available. From tried and tested torque spanners to excellent testing devices, powerful pneumatic tools and ultra-modern EC screwdriving systems to individual special solutions according to drawings.

In particular, we offer you sound personal advice as well as far-reaching service – from individual demonstrations and competent on-site support to authorised calibration and certification to expert repair and maintenance.

For decades, the brand-name tools we supply have been successfully used in vehicle production, in mechanical engineering, but also in the aerospace industry and many other branches of industry.

The tools preferred in industrial manufacturing are reflected in our high-class product line, complemented by reliable pneumatic wrenches for maintenance and repair work (automotive).



## Product Groups

### Torque Application

- Signalling ('clicker')
- Direct reading
- Electron. controlled

### Torque Measurement

- Torque gauges
- Testers, sensors
- Calibration equipment

### Impulse Tools

- Battery powered wrenches
- Pneum. impulse wrenches
- EC tightening systems

### Pneumatic Pliers

- Cutting pliers
- Assembly pliers
- Machine pliers

### Power Sockets

- With/without Magnet
- Sleeve drive
- Adaptors

### Screwdriver Bits

- Bits & holders
- Nutsetter
- Adaptors

### Air Handling & Accs

- Air treatment
- Hoses, couplings
- Balancers, holster

## References



- Efficient bolting technology
- Controlled tightening results
- Lean Production
- Service – Quality – Competence

## Services

- Proven torque application tools, excellent torque measurement equipment and high-class EC tightening systems
- Well founded personal Advice
- Competent support on site
- Effective user training
- Individual demonstration, trial installation, commissioning
- Authorised testing, calibration and certification
- Professional maintenance / repair
- Information newsletter few times a year



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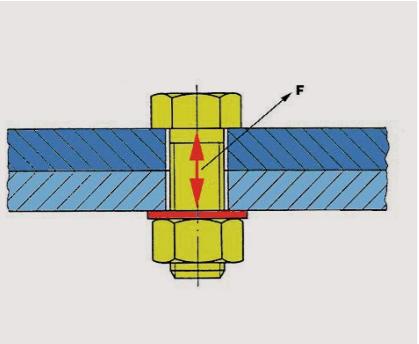
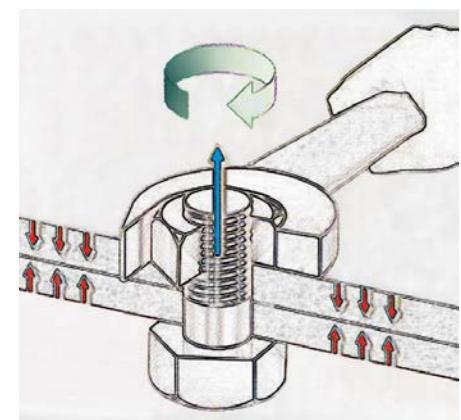
## What affects the bolted joint

### From tightening torque to the preload

The functional principle of a bolted connection consists of pressing several parts or components onto each other. In the process, the applied tightening force (tightening torque) is converted via the bolt thread into a contact pressure (clamping force) that acts on the bolted workpieces.

**Torque** ( $M_d$ ) is the physical force acting perpendicularly on an axis of rotation via a defined lever (perpendicular acceleration of rotation). Torque is measured in Newton metres and is the vector product of force arm times force.

The **preload** ( $F$ ) acts axially in the bolt shank between the bolt head and the nut and generates the **clamping force** with which the components to be bolted are pressed together. From the moment the bolt head or the nut is in contact with the material to be tightened (head contact), the pre-tension is effective. The pre-tensioning force causes a constant and permanent connection of the different workpieces to each other.



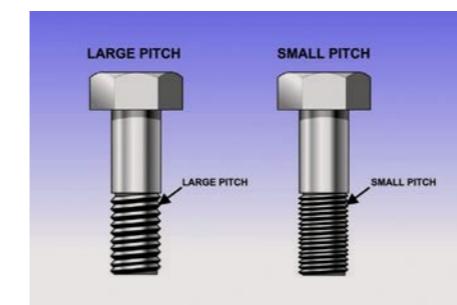
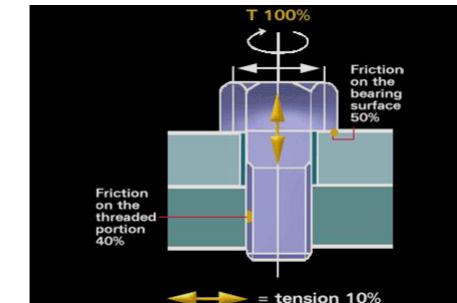
## Where the power goes to

### Friction losses and Tightening hardness

Frictional resistances in the fastener thread ( $\mu_g$ ) and on the fastener head ( $\mu_k$ ) significantly reduce the conversion of the tightening torque ( $M_d$ ) into preload ( $F_v$ ). They essentially depend on the material, the machining and the existing friction surfaces. The frictional forces counteract the torque, i.e. they prevent an applied torque from being fully converted into preload force.

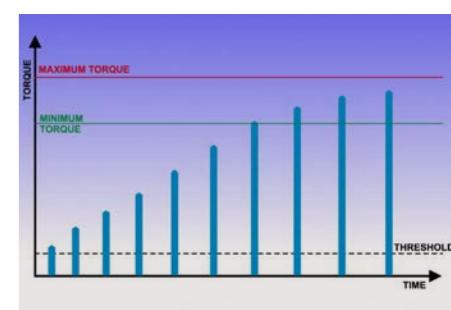
Around 90% of the applied torque is lost due to friction losses:

- 50% by head friction
- 40% by thread friction



Three different procedures have been established for checking:

1. dynamically at the bolting point during ongoing production.
2. by means of a measuring wrench at the tightening point after assembly, or
3. stationary on the tool during maintenance or repair.



### Monitoring torque

Direct measurement of the pretensioning force can only be carried out in the laboratory or by ultrasound, which is very time-consuming and therefore costly. Therefore, in the vast majority of cases, the preload force is determined via the torque (tightening torque). The torque can be measured in the production process with reasonable effort. Detected torque fluctuations allow conclusions to be drawn about:

- Component alterations.
- Bad assembly tool.
- Handling mistakes, etc.

We also offer you a wide range of high-precision torque measurement technology. Ask our technical advisors.





## Special features of Action® power sockets



### The Square Drive

The contour of the square of the Action® power sockets is rounded outwards in the corners. On the one hand, this gives the drive spindle of the wrench an excellent fit. On the other hand, the torque is not only transmitted in the corners of the power socket, but mainly on the flanks. This increases the service life of both the power socket and the drive spindle of the nutrunner.



### The Hexagon

Rounded inner corners of the Action® hexagonal power sockets cause a certain amount of play in the corners of the hexagon in the fastener head. This leads to increased force application on the flanks. It also has the effect of reducing wear on the corners of the fastener head or nut. The same applies to twelve-point power sockets.



### Surface Drive

Action® power sockets with Surface Drive are designed to drive only the flank centre of the bolt or nut. The surface drive is recommended for nuts with worn corners or nuts made of softer material as well as for polished nuts and bolts.

The facilitated „finding“ of the socket, nut or bolt makes it possible to put on the socket with the nutrunner turning slowly and to carry out the number of tightening operations more quickly.

With continuously rotating drives, the additional play has no influence on the torque accuracy. With impulse wrenches, however, this additional play is very disadvantageous, as there is then a kickback with each impulse instead of continuous contact with the socket. Surface drive' sockets should therefore **not be used for impulse tools**.



### CAUTION!

- Protect your health!  
Always wear Personal Protective Equipment when working with power tools (safety glasses, work gloves, etc.).
- Never hold mechanically rotating parts by hand!
- Replace worn power sockets at an early stage.
- According to EU Directive 2006/42/EC (Machinery Directive) and EN/ISO 11148-6 only power sockets may be used on power tools.



For more info, visit our website.



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## Insert the matching bit

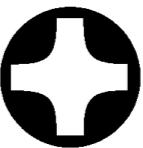
Due to the size of the components or the special manufacturing process, screws with internal drive are an indispensable part of the world of tools. The most common tool for this is the screwdriver insert – known worldwide by its abbreviated name: insert bit.

The demands on this tool in terms of tool life and the maximum torque to be transferred to the screw have increased enormously in recent years. The reason for these requirements are ever shorter cycle times and the increasing need for fast handheld screwdriving systems and automatic screwdriving machines in the manufacture of products. This production method no longer gives unreliable tools a chance. Currently available bits have little more in common with the bits manufactured 10 years ago than the geometry of the output drive.

The positive effect for the user is that the bits in this catalogue are at the limit of what is technically feasible in terms of service life and maximum torque transmission due to exact fit and sophisticated hardening technology. This means that you are working with a highly resilient and accurately fitting tool that offers an optimal price-performance ratio.

The area of safety-relevant screw connections is constantly increasing. Be it the screw that should only allow access to the control of the braking system to the authorised specialist. Be it the connection that should make the disassembly of components more difficult or prevent it. Such screws have the most diverse drive profiles.

Should you ever need a profile that is not listed in this catalogue, please send us your request. We will be happy to help you get the tool you need.



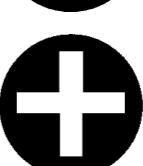
### Crosshead

Invented in the early 1930s by Henry Phillips, the Phillips (PH) screw head profile is rounded on the inside. (Ironically, the Phillips Screw Company that exists today has never manufactured PH screws or screwdrivers).

The Pozidriv® profile is distinguished by right-angled „guide lugs“ that strengthen the hold of the tool in the screw head.

Today there are a number of variations of the Phillips crosshead profile, such as Phillips II®. Phillips Square-Driv® (3rd picture from top) or Pozisquare-Driv®, among others.

Less common, but easily confused with „PH“ crosshead profile, is the „Frearson“ cross slot, which has true 90° flanks.

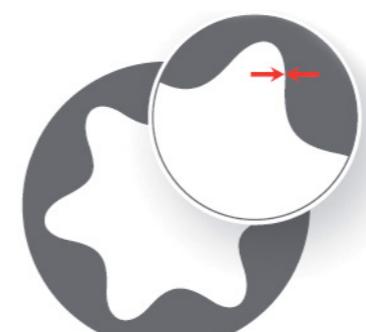


### 12-point

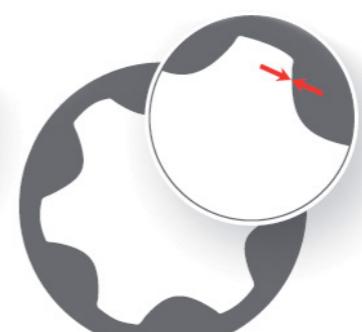
The multi-tooth profile, also called XZN, consists of three squares offset against each other. As a result, it has 12 right-angled edges on the outside. This is why it is called a „triple square“.

The double hexagonal profile also has 12 outer edges. However, it is created from two symmetrically offset hexagons that result in twelve „blunt“ edges (á 120°).

But there are also other 12-edged profiles, such as those created from four staggered triangles with pointed edges (á 60°), and so on.



TORX®



TORX PLUS®



Tamper-Resistant  
Torx® (TR)



Tamper-Resistant  
TorxPlus® (IPR)

### Hexalobular

The six-round profile developed in 1967 by Camcar® (Textron) under the brand name Torx® has alternating radially curved projections and flutes. Free of camout effect, it enabled a significantly higher power transmission than all drive profiles known until then.

Here, too, a number of modifications and further developments have been made over time, such as Torx® Tamper Resistant, also: Tamper Proof (see illustration below) or Security Torx®, and finally the TorxPlus® profile, which has been unsurpassed for many years, with an almost true zero-degree drive angle.

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# Power Sockets with 1/4" square drive according to DIN 3121 G 6.3



## 6-point – normal

Model	Item No.	A/F mm	L mm	D1 mm	D2 mm	L2 mm	Pk
K1/4-4	210011	4	23	7.6	13	4.0	5
K1/4-4.5	210012	4.5	23	8.2	13	5.0	5
K1/4-5	210013	5	23	8.8	13	5.0	5
K1/4-5.5	210014	5.5	23	9.5	13	5.0	5
K1/4-6	210015	6	23	10.0	13	6.0	5
K1/4-7	210016	7	23	11.3	13	6.0	5
K1/4-8	210017	8	23	12.5	13	7.0	5
K1/4-9	210018	9	23	13.8	13	7.0	5
K1/4-10	210019	10	23	15.0	13	7.0	5
K1/4-11	210020	11	23	16.3	13	8.0	5
K1/4-12	210021	12	23	17.0	13	8.0	5
K1/4-13	210022	13	23	18.8	13	8.0	5
K1/4-14	210023	14	23	20.0	13	8.0	5
K1/4-15	210024	15	23	21.0	13	8.0	5



## 6-point – normal – inch

Model	Item No.	A/F inch	L mm	D1 mm	D2 mm	L2 mm	Pk
K1/4-3/16	210050	3/16	23	8.5	13	5.0	5
K1/4-1/4	210051	1/4	23	10.3	13	6.0	5
K1/4-5/16	210052	5/16	23	12.5	13	7.0	5
K1/4-3/8	210053	3/8	23	15.0	13	7.0	5
K1/4-7/16	210054	7/16	23	16.3	13	8.0	5
K1/4-1/2	210055	1/2	23	18.8	13	8.0	5



## 6-point – extra hard

Model	Item No.	A/F mm	L mm	D1 mm	D2 mm	L2 mm	Pk
K1/4-5.5-XH	210210	5.5	23	9.5	13	3.0	5
K1/4-6-XH	210211	6	23	10.0	13	3.0	5
K1/4-7-XH	210212	7	23	11.3	13	3.0	5
K1/4-8-XH	210213	8	23	12.5	13	3.0	5
K1/4-9-XH	210214	9	23	13.8	13	4.0	5
K1/4-10-XH	210215	10	23	15.0	13	4.0	5



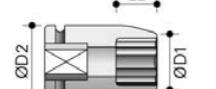
## 6-point – deep

Model	Item No.	A/F mm	L mm	D1 mm	D2 mm	L2 mm	Pk
K1/4-4L	210306	4	50	8.2	13	4.0	5
K1/4-4.5L	210307	4.5	50	8.2	13	6.0	5
K1/4-5L	210308	5	50	8.8	13	6.0	5
K1/4-6L	210309	6	50	10.0	13	7.0	5
K1/4-7L	210310	7	50	11.3	13	5.0	5
K1/4-8L	210311	8	50	12.5	13	5.0	5
K1/4-9L	210312	9	50	13.8	13	5.0	5
K1/4-10L	210313	10	50	15.0	13	9.0	5
K1/4-11L	210314	11	50	16.3	13	9.0	5
K1/4-12L	210315	12	50	17.0	13	9.0	5
K1/4-13L	210316	13	50	18.8	13	9.0	5
K1/4-14L	210318	14	50	20.0	13	9.0	5
K1/4-15L	210317	15	50	21.0	13	9.0	5



## 6-point – with joint\*

Model	Item No.	A/F mm	L mm	D1 mm	D2 mm	L2 mm	Pk
KG1/4-5	210550	5	43	8.8	15	5.0	5
KG1/4-5.5	210551	5.5	43	9.5	15	6.0	5
KG1/4-6	210552	6	43	10.0	15	6.0	5
KG1/4-7	210553	7	43	11.5	15	8.0	5
KG1/4-8	210554	8	43	12.5	15	8.0	5
KG1/4-9	210555	9	43	14.0	15	8.0	5
KG1/4-10	210556	10	43	15.0	15	8.0	5
KG1/4-11	210557	11	43	16.5	15	8.0	5
KG1/4-12	210558	12	48	16.8	16	8.0	5
KG1/4-13	210559	13	48	18.8	16	8.0	5
KG1/4-14	210560	14	48	19.8	16	8.0	5
KG1/4-15	210561	15	48	20.8	16	8.0	5



# Power Sockets with 1/4" square drive according to DIN 3121 G 6.3



Hex driver (Allen) – normal

Model	Item No.	A/F mm	L mm	D1 mm	D2 mm	L1 mm	Pk
K1/4-A2.5	210730	2.5	35	–	13	4.0	5
K1/4-A3	210731	3	35	–	13	6.0	5
K1/4-A4	210732	4	35	–	13	6.0	5
K1/4-A5	210733	5	35	–	13	6.0	5
K1/4-A6	210734	6	35	–	13	8.0	5
K1/4-A7	210735	7	35	–	13	8.0	5
K1/4-A8	210736	8	35	–	13	8.0	5
K1/4-A9	210737	9	35	–	13	10	5
K1/4-A10	210738	10	35	–	13	10	5



Torx® driver TX – normal

Model	Item No.	A/F #	L mm	D1 mm	D2 mm	L1 mm	Pk
K1/4-T5	210850	T5	35	–	13	2.0	5
K1/4-T6	210851	T6	35	–	13	2.0	5
K1/4-T7	210852	T7	35	–	13	2.0	5
K1/4-T8	210853	T8	35	–	13	2.0	5
K1/4-T9	210854	T9	35	–	13	2.0	5
K1/4-T10	210855	T10	35	–	13	2.8	5
K1/4-T15	210856	T15	35	–	13	2.8	5
K1/4-T20	210857	T20	35	–	13	2.8	5
K1/4-T25	210858	T25	35	–	13	3.0	5
K1/4-T27	210859	T27	35	–	13	3.0	5
K1/4-T30	210860	T30	35	–	13	3.8	5



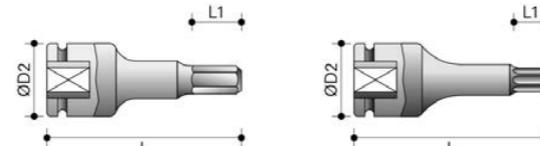
Rubber ring & locking pin

Model	Item No.	Size inch	–	D1 mm	D2 mm	–	Pk
RS-1/4	210950	1/4	–	–	13	–	5



Torx® driver TR (Tamper Resistant) – normal

Model	Item No.	A/F #	L mm	D1 mm	D2 mm	L1 mm	Pk
K1/4-TR8	210913	TR 8	35	–	13	2.0	5
K1/4-TR9	210914	TR 9	35	–	13	2.0	5
K1/4-TR10	210915	TR 10	35	–	13	2.8	5
K1/4-TR15	210916	TR 15	35	–	13	2.8	5
K1/4-TR20	210917	TR 20	35	–	13	2.8	5
K1/4-TR25	210918	TR 25	35	–	13	3.0	5
K1/4-TR27	210919	TR 27	35	–	13	3.0	5
K1/4-TR30	210920	TR 30	35	–	13	3.8	5



For more info, visit our website.



# Power Sockets with 1/4" square drive according to DIN 3121 G 6.3



6-point w Magnet – normal

Model	Item No.	A/F mm	L mm	D1 mm	D2 mm	L2 mm	Pk
KM1/4-5	210110	5	23	8.8	13	3.0	5
KM1/4-5.5	210111	5.5	23	9.5	13	3.0	5
KM1/4-6	210112	6	23	10.0	13	3.0	5
KM1/4-7	210113	7	23	11.3	13	3.0	5
KM1/4-8	210114	8	23	12.5	13	3.0	5
KM1/4-9	210115	9	23	13.8	13	4.0	5
KM1/4-10	210116	10	23	15.0	13	4.0	5
KM1/4-11	210117	11	23	16.3	13	5.0	5
KM1/4-12	210118	12	23	17.0	13	5.0	5
KM1/4-13	210119	13	23	18.8	13	5.0	5
KM1/4-14	210120	14	23	20.0	13	6.0	5
KM1/4-15	210121	15	23	21.0	13	6.0	5

6-point w Magnet – deep

Model	Item No.	A/F mm	-L mm	D1 mm	D2 mm	-L2 mm	Pk
KM1/4-5-L	210346	5	50	8.8	13	3.0	5
KM1/4-5.5-L	210347	5.5	50	9.5	13	3.0	5
KM1/4-6-L	210349	6	50	10.0	13	3.0	5
KM1/4-7-L	210350	7	50	11.3	13	3.0	5
KM1/4-8-L	210351	8	50	12.5	13	3.0	5
KM1/4-9-L	210352	9	50	13.8	13	4.0	5
KM1/4-10-L	210353	10	50	15.0	13	4.0	5
KM1/4-11-L	210354	11	50	16.3	13	5.0	5
KM1/4-12-L	210355	12	50	17.0	13	5.0	5
KM1/4-13-L	210356	13	50	18.8	13	5.0	5
KM1/4-14-L	210357	14	50	20.0	13	6.0	5
KM1/4-15-L	210358	15	50	21.0	13	6.0	5



6-point w Magnet – extra hard

Model	Item No.	A/F mm	L mm	D1 mm	D2 mm	L2 mm	Pk
KM1/4-5-XH	210249	5	23	–	13	3.0	5
KM1/4-5.5-XH	210250	5.5	23	10.0	13	3.0	5
KM1/4-7-XH	210252	7	23	12.5	13	3.0	5
KM1/4-8-XH	210253	8	23	13.8	13	4.0	5
KM1/4-9-XH	210254	9	23	15.0	13	4.0	5
KM1/4-10-XH	210255	10	23	16.3	13	5.0	5
KM1/4-11-XH	210256	11	23	–	13	5.0	5
KM1/4-13-X							



### 6-point – normal

Model	Item No.	A/F mm	L mm	D1 mm	D2 mm	L2 mm	Pk
K3/8-6	220050	6	30	11.0	19	4.0	5
K3/8-7	220051	7	30	12.5	19	8.0	5
K3/8-8	220052	8	30	14.0	19	8.0	5
K3/8-9	220053	9	30	15.0	19	8.0	5
K3/8-10	220054	10	30	16.0	19	8.0	5
K3/8-11	220055	11	30	17.5	19	9.0	5
K3/8-12	220056	12	30	19.0	19	9.0	5
K3/8-13	220057	13	30	20.0	22	9.0	5
K3/8-14	220058	14	30	21.0	22	9.0	5
K3/8-15	220059	15	30	22.0	22	11.0	5
K3/8-16	220060	16	30	24.0	22	11.0	5
K3/8-17	220061	17	30	25.0	22	11.0	5
K3/8-18	220062	18	30	26.0	22	11.0	5
K3/8-19	220063	19	30	27.5	22	11.0	5
K3/8-20	220064	20	30	28.0	22	12.0	5
K3/8-21	220065	21	30	30.0	22	13.0	5
K3/8-22	220066	22	30	32.0	23	13.0	5
K3/8-24	220067	24	30	34.0	23	13.0	5

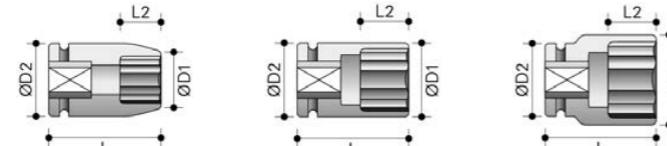


### 6-point – deep



### 6-point – deep

Model	Item No.	A/F mm	L mm	D1 mm	D2 mm	L2 mm	Pk
K3/8-6-L	220209	6	65	11.0	19	12.0	5
K3/8-7-L	220210	7	65	12.5	19	12.0	5
K3/8-8-L	220211	8	65	13.8	19	12.0	5
K3/8-9-L	220212	9	65	15.0	19	12.0	5
K3/8-10-L	220213	10	65	16.0	19	12.0	5
K3/8-11-L	220214	11	65	17.5	19	25.0	5
K3/8-12-L	220215	12	65	19.0	19	25.0	5
K3/8-13-L	220216	13	65	20.0	22	25.0	5
K3/8-14-L	220217	14	65	21.0	22	25.0	5
K3/8-15-L	220218	15	65	22.0	22	25.0	5
K3/8-16-L	220219	16	65	24.0	22	25.0	5
K3/8-17-L	220220	17	65	25.0	22	25.0	5
K3/8-18-L	220221	18	65	26.0	22	25.0	5
K3/8-19-L	220222	19	65	27.5	22	25.0	5
K3/8-20-L	220223	20	65	28.0	22	25.0	5
K3/8-21-L	220224	21	65	30.0	22	25.0	5
K3/8-22-L	220225	22	65	32.0	23	25.0	5
K3/8-24-L	220226	24	65	34.0	23	25.0	5



### 6-point – XL & XXL

Model	Item No.	A/F mm	L mm	D1 mm	D2 mm	L2 mm	Pk
K3/8-6-150	220310	6	150	11.0	19	4.0	–
K3/8-8-150	220311	8	150	13.0	19	8.0	–
K3/8-10-150	220312	10	150	16.0	19	8.0	–
K3/8-12-150	220313	12	150	18.5	19	9.0	–
K3/8-13-150	220314	13	150	20.0	22	9.0	–
K3/8-14-150	220315	14	150	21.0	22	9.0	–
K3/8-15-150	220316	15	150	22.0	22	11.0	–
K3/8-16-150	220317	16	150	24.0	22	11.0	–
K3/8-17-150	220318	17	150	25.0	22	11.0	–
K3/8-18-150	220319	18	150	26.0	22	12.0	–
K3/8-6-200	220350	6	200	11.0	19	4.0	–
K3/8-8-200	220351	8	200	13.0	19	8.0	–
K3/8-10-200	220352	10	200	16.0	19	8.0	–
K3/8-12-200	220353	12	200	18.5	19	9.0	–
K3/8-13-200	220354	13	200	20.0	22	9.0	–
K3/8-14-200	220355	14	200	21.0	22	9.0	–
K3/8-15-200	220356	15	200	22.0	22	11.0	–
K3/8-16-200	220357	16	200	24.0	22	11.0	–
K3/8-17-200	220358	17	200	25.0	22	11.0	–
K3/8-6-250	220410	6	250	11.0	19	4.0	–
K3/8-8-250	220411	8	250	13.0	19	8.0	–
K3/8-10-250	220412	10	250	16.0	19	8.0	–
K3/8-12-250	220413	12	250	18.5	19	9.0	–
K3/8-13-250	220414	13	250	20.0	22	9.0	–
K3/8-14-250	220415	14	250	21.0	22	9.0	–
K3/8-15-250	220416	15	250	22.0	22	11.0	–
K3/8-16-250	220417	16	250	24.0	22	11.0	–
K3/8-17-250	220418	17	250	25.0	22	11.0	–



### 6-point – with joint\* – normal

Model	Item No.	A/F mm	L mm	D1 mm	D2 mm	L2 mm	Pk
KG3/8-9-K	220750	9	53	15.0	24	9.0	–
KG3/8-10-K	220751	10	53	15.0	24	9.0	–
KG3/8-11-K	220752	11	53	17.0	24	9.0	–
KG3/8-12-K	220753	12	53	19.0	24	12.0	–
KG3/8-13-K	220754	13	53	19.0	24	13.0	–
KG3/8-14-K	220755	14	53	21.0	24	13.0	–
KG3/8-15-K	220756	15	53	22.0	24	13.0	–
KG3/8-16-K	220757	16	53	23.0	24	13.0	–
KG3/8-17-K	220758	17	53	25.0	24	13.0	–
KG3/8-18-K	220759	18	53	25.0	24	13.0	–
KG3/8-19-K	220760	19	53	27.0	24	13.0	–
KG3/8-20-K	220761	20	53	30.0	24	13.0	–



### 6-point – thin-walled\* – normal

Model	Item No.	A/F mm	L mm	D1 mm	D2 mm	L2 mm	Pk
K3/8-6-DW	220948	6	30	10.5	19.0	4.0	5
K3/8-7-DW	220949	7	30	11.5	19.0	8.0	5
K3/8-8-DW	220950	8	30	12.3	18.5	5.0	5
K3/8-9-DW	220951	9	30	13.5	18.5	6.0	5
K3/8-10-DW	220952	10	30	14.8	18.5	6.0	5
K3/8-11-DW	220953	11	30	16.0	18.5	7.0	5
K3/8-12-DW	220954	12	30	17.3	18.5	8.0	5
K3/8-13-DW	220955	13	30	18.5	21.5	10.0	5
K3/8-14-DW	220956	14	30	19.8	21.5	10.0	5



### 6-point Surface Drive – normal

Model	Item No.	A/F mm	L mm	D1 mm	D2 mm	L2 mm	Pk
K3/8-8-SD	220450	8	32	13.8	19	8.0	5
K3/8-9-SD	220451	9	32	15.0	19	8.0	5
K3/8-10-SD	220452	10	32	16.0	19	8.0	5
K3/8-11-SD	220453	11	32	17.5	19	9.0	5
K3/8-12-SD	220454	12	32	19.0	19	9.0	5
K3/8-13-SD	220455	13	32	20.0	22	9.0	5
K3/8-14-SD	220456	14	32	22.0	22	9.0	5
K3/8-15-SD	220457	15	32	22.0	22	11.0	5
K3/8-16-SD	220458	16	32	24.0	22	11.0	5
K3/8-17-SD	220459	17	32	25.0	22	11.0	5
K3/8-18-SD	220460	18	32	26.0	22	11.0	5
K3/8-19-SD	220461	19	32	28.0	22	11.0	5



### 6-point Surface Drive – normal – inch

Model	Item No.	A/F inch	L mm	D1 mm	D2 mm	L2 mm	Pk
K3/8-1/4-SD	220510	1/4	32	11.5	19	4.0	5
K3/8-5/16-SD	220511	5/16	32	13.8	19	8.0	5
K3/8-3/8-SD	220512	3/8	32	15.5	19	8.0	5
K3/8-7/16-SD	220513	7/16	32	17.5	19	9.0	5
K3/8-1/2-SD	220514	1/2	32	20.0	22	9.0	5
K3/8-9/16-SD	220515	9/16	32	22.0	22	11.0	5
K3/8-5/8-SD	220516	5/8	32	24.0	22	11.0	5
K3/8-11/16-SD	220517	11/16	32	26.0	22	11.0	5
K3/8-3/4-SD	220518	3/4	32	28.0	22	11.0	5



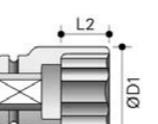
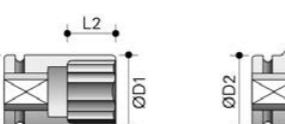
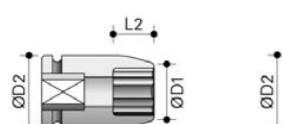
### 6-point – thin-walled\* – deep

Model	Item No.	A/F mm	L mm	D1 mm	D2 mm	L2 mm	Pk
K3/8-7-DWL	221010	7	65	11.5	19	12.0	5
K3/8-8-DWL	221011	8	65	12.5	19	12.0	5
K3/8-9-DWL	221012	9	65	14.0	19	12.0	5
K3/8-10-DWL	221013	10	65	15.0	19	25.0	5
K3/8-11-DWL	221014	11	65	17.0	19	25.0	5
K3/8-12-DWL	221015	12	65	17.5	19	25.0	5
K3/8-13-DWL	221016	13	65	19.0	19	25.0	5
K3/8-14-DWL	221017	14	65	20.0	20	25.0	5
K3/8-15-DWL	221018	15	65	21.0	22	25.0	5
K3/8-16-DWL	221019	16	65	22.5	22	25.0	5
K3/8-17-DWL	221020	17	65	24.0	22	25.0	5
K3/8-18-DWL	221021	18	65	25.0	22	25.0	5
K3/8-19-DWL	221022	19	65	26.0	22	25.0	5
K3/8-20-DWL	221023	20	65	27.0	22	25.0	5
K3/8-21-DWL	221024	21	65	28.0	22	25.0	5
K3/8-22-DWL	221025	22	65	30.0	23	25.0	5



### 6-point Fast Lead – normal

Model	Item No.	A/F mm	L mm	D1 mm	D2 mm	L2 mm	Pk
K3/8-10-FL	220710	10	32	15.8	19	8.0	5
K3/8-11-FL	220711	11	32	17.0	19	8.0	5
K3/8-12-FL	220712	12	32	18.3	19	9.0	5
K3/8-13-FL	220713	13	32	19.5	22	9.0	5
K3/8-14-FL	220714	14	32	20.8	22	11.0	5
K3/8-15-FL	220715	15	32	22.0	22	11.0	5
K3/8-16-FL	220716	16	32	23.3	22	11.0	5
K3/8-17-FL	220717	17	32	24.5	22	12.0	5
K3/8-18-FL	220718	18	32	25.8	22	13.0	5
K3/8-19-FL	220719	19	32	27.0	22	13.0	5



\* excluded from the manufacturer's warranty.

For more info, visit our website.



### 6-point Surface Drive – deep

Model	Item No.	A/F mm	L mm	D1 mm	D2 mm	L2 mm	Pk
K3/8-8-SDL	220610	8	80	13.8	19	12.0	–
K3/8-9-SDL	220611	9	80	15.0	19	12.0	–
K3/8-10-SDL	220612	10	80	16.0	19	12.0	–
K3/8-11-SDL	220613	11	80	17.5	19	25.0	–
K3/8-12-SDL	220614	12	80	19.0	19	25.0	–
K3/8-13-SDL	220615	13	80	20.0	22	25.0	–
K3/8-14-SDL	220616	14	80	22.0	22	25.0	–

# Power Sockets with 3/8" square drive according to DIN 3121 G 10



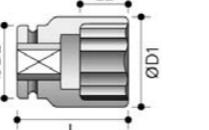
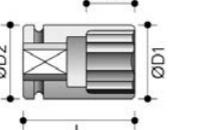
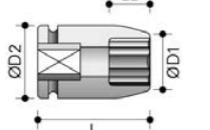
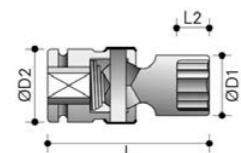
12-point – deep

Model	Item No.	A/F mm	L mm	D1 mm	D2 mm	L2 mm	Pk
K3/8-6-DSKL	221250	6	63	11.0	19	5.0	5
K3/8-7-DSKL	221251	7	63	12.0	19	12.0	5
K3/8-8-DSKL	221252	8	63	13.0	19	12.0	5
K3/8-9-DSKL	221253	9	65	15.0	19	12.0	5
K3/8-10-DSKL	221254	10	65	16.0	19	22.0	5
K3/8-11-DSKL	221255	11	65	17.5	19	22.0	5
K3/8-12-DSKL	221256	12	65	18.5	19	22.0	5
K3/8-13-DSKL	221257	13	65	20.0	22	22.0	5
K3/8-14-DSKL	221258	14	65	21.0	22	22.0	5
K3/8-15-DSKL	221259	15	65	22.0	22	22.0	5
K3/8-16-DSKL	221260	16	65	24.0	22	24.0	5
K3/8-17-DSKL	221261	17	65	25.0	22	24.0	5
K3/8-18-DSKL	221262	18	65	26.0	22	24.0	5
K3/8-19-DSKL	221263	19	65	27.0	22	24.0	5
K3/8-20-DSKL	221264	20	65	28.0	22	24.0	5
K3/8-21-DSKL	221265	21	65	30.0	22	24.0	5
K3/8-22-DSKL	221266	22	65	31.0	23	24.0	5
K3/8-23-DSKL	221267	23	65	32.0	23	24.0	5
K3/8-24-DSKL	221268	24	65	34.0	23	24.0	5
K3/8-25-DSKL	221269	25	65	35.0	23	24.0	5
K3/8-26-DSKL	221270	26	65	36.0	23	24.0	5



Torx® E – normal

Model	Item No.	A/F #	L mm	D1 mm	D2 mm	L2 mm	Pk
K3/8-E5	221510	E5	32	9.0	19	4.5	5
K3/8-E6	221511	E6	32	10.0	19	5.0	5
K3/8-E7	221512	E7	32	10.0	19	6.0	5
K3/8-E8	221513	E8	32	10.5	19	6.0	5
K3/8-E10	221514	E10	32	12.5	19	7.5	5
K3/8-E11	221515	E11	32	14.5	19	8.0	5
K3/8-E12	221516	E12	32	15.0	19	8.5	5
K3/8-E14	221517	E14	32	17.5	19	10.0	5
K3/8-E16	221518	E16	32	19.0	19	11.0	5
K3/8-E18	221519	E18	34	21.0	21	12.5	5



\* excluded from the manufacturer's warranty.

For more info, visit our website.



# Power Sockets with 3/8" square drive according to DIN 3121 G 10



Hex driver (Allen) – normal

Model	Item No.	A/F mm	L mm	D1 mm	D2 mm	L1 mm	Pk
K3/8-A3	221310	3	50	–	19	16	5
K3/8-A4	221311	4	50	–	19	16	5
K3/8-A5	221312	5	50	–	19	16	5
K3/8-A6	221313	6	50	–	19	16	5
K3/8-A7	221314	7	50	–	19	16	5
K3/8-A8	221315	8	50	–	19	16	5
K3/8-A9	221316	9	50	–	19	16	5
K3/8-A10	221317	10	50	–	19	16	5
K3/8-A11	221318	11	50	–	19	16	5
K3/8-A12	221319	12	50	–	19	16	5
K3/8-A13	221320	13	50	–	19	16	5
K3/8-A14	221321	14	50	–	19	16	5
K3/8-A15	221322	15	50	–	19	16	5
K3/8-A16	221323	16	50	–	19	16	5



Hex driver (Allen) – with joint\*

Model	Item No.	A/F mm	L mm	D1 mm	D2 mm	L1 mm	Pk
KG3/8-A5	221350	5	60	–	24	11	5
KG3/8-A6	221351	6	60	–	24	11	5
KG3/8-A7	221352	7	60	–	24	15	5
KG3/8-A8	221353	8	60	–	24	15	5
KG3/8-A9	221354	9	60	–	24	15	5
KG3/8-A10	221355	10	60	–	24	15	5
KG3/8-A11	221356	11	60	–	24	15	5
KG3/8-A12	221357	12	60	–	24	15	5
KG3/8-A13	221358	13	60	–	24	15	5
KG3/8-A14	221359	14	60	–	24	15	5
KG3/8-A15	221360	15	60	–	24	15	5
KG3/8-A16	221361	16	60	–	24	15	5



Holder & interchangeable hex bits

Model	Item No.	A/F mm	L mm	D1 mm	D2 mm	T mm	Pk
K3/8-AWE7/16	221410	7/16	32	22.0	22	–	–
AWE7/16-A5	221450	5	35	–	–	–	5
AWE7/16-A6	221451	6	35	–	–	–	5
AWE7/16-A8	221452	8	35	–	–	–	5
AWE7/16-A10	221453	10	35	–	–	–	5
AWE7/16-A12	221454	12	35	–	–	–	5
AWE7/16-A14	221455	14	35	–	–	–	5
AWE7/16-A17	221456	17	35	–	–	–	5



RIBE® driver – normal

Model	Item No.	A/F #	L mm	D1 mm	D2 mm	L1 mm	Pk
K3/8-R5	221830	R5	50	–	19	4.5	5
K3/8-R6	221831	R6	50				



#### Torx® driver TX – normal<sup>1)</sup>

Model	Item No.	A/F #	L mm	D1 mm	D2 mm	L1 mm	Pk
K3/8-T9	221650	T9	50	–	19	2.8	5
K3/8-T10	221651	T10	50	–	19	2.8	5
K3/8-T15	221652	T15	50	–	19	2.8	5
K3/8-T20	221653	T20	50	–	19	3.0	5
K3/8-T25	221654	T25	50	–	19	3.0	5
K3/8-T27	221655	T27	50	–	19	3.8	5
K3/8-T30	221656	T30	50	–	19	3.8	5
K3/8-T40	221657	T40	50	–	19	4.3	5
K3/8-T45	221658	T45	50	–	19	5.0	5
K3/8-T47	221659	T47	50	–	19	5.0	5
K3/8-T50	221660	T50	50	–	19	5.5	5

<sup>1)</sup> Size T20 to T55 also available in length 150 mm.



#### Torx® driver TX – with joint\*

Model	Item No.	A/F #	L mm	D1 mm	D2 mm	L1 mm	Pk
KG3/8-T20	221710	T20	60	–	24	3.0	5
KG3/8-T25	221711	T25	60	–	24	3.0	5
KG3/8-T27	221712	T27	60	–	24	3.8	5
KG3/8-T30	221713	T30	60	–	24	3.8	5
KG3/8-T40	221714	T40	60	–	24	4.3	5
KG3/8-T45	221715	T45	60	–	24	5.0	5
KG3/8-T47	221716	T47	60	–	24	5.0	5
KG3/8-T50	221717	T50	60	–	24	5.5	5
KG3/8-T55	221718	T55	60	–	24	5.5	5



#### Torx® driver TR (Tamper Resistant) – normal

Model	Item No.	A/F #	L mm	D1 mm	D2 mm	L1 mm	Pk
K3/8-TR20	221750	TR20	50	–	19	3.0	5
K3/8-TR25	221751	TR25	50	–	19	3.0	5
K3/8-TR27	221752	TR27	50	–	19	3.8	5
K3/8-TR30	221753	TR30	50	–	19	3.8	5
K3/8-TR40	221754	TR40	50	–	19	4.3	5
K3/8-TR45	221755	TR45	50	–	19	5.0	5
K3/8-TR47	221756	TR47	50	–	19	5.0	5
K3/8-TR50	221757	TR50	50	–	19	5.5	5
K3/8-TR55	221758	TR55	50	–	19	5.5	5



#### Triple square driver XZN – normal

Model	Item No.	A/F #	L mm	D1 mm	D2 mm	L1 mm	Pk
K3/8-XZN5	221810	M5	50	–	19	7.0	5
K3/8-XZN6	221811	M6	50	–	19	7.0	5
K3/8-XZN8	221812	M8	50	–	19	9.0	5
K3/8-XZN10	221813	M10	50	–	19	9.0	5
K3/8-XZN12	221814	M12	50	–	19	11.0	5
K3/8-XZN14	221815	M14	50	–	19	11.0	5
K3/8-XZN16	221816	M16	50	–	19	13.0	5

#### Triple square driver XZN – deep

Model	Item No.	A/F #	L mm	D1 mm	D2 mm	L1 mm	Pk
K3/8-XZN5-L	221850	M5	100	–	19	7.0	5
K3/8-XZN6-L	221851	M6	100	–	19	7.0	5
K3/8-XZN8-L	221852	M8	100	–	19	9.0	5
K3/8-XZN10-L	221853	M10	100	–	19	9.0	5
K3/8-XZN12-L	221854	M12	100	–	19	11.0	5
K3/8-XZN14-L	221855	M14	100	–	19	11.0	5
K3/8-XZN16-L	221856	M16	100	–	19	13.0	5
K3/8-XZN5-120	221870	M5	120	–	19	7.0	5
K3/8-XZN6-120	221871	M6	120	–	19	7.0	5
K3/8-XZN8-120	221872	M8	120	–	19	9.0	5
K3/8-XZN10-120	221873	M10	120	–	19	9.0	5
K3/8-XZN12-120	221874	M12	120	–	19	11.0	5
K3/8-XZN14-120	221875	M14	120	–	19	11.0	5
K3/8-XZN16-120	221876	M16	120	–	19	13.0	5



#### Rubber ring & locking pin

Model	Item No.	Size inch	–	D1 mm	D2 mm	–	Pk
RS-3/8	222050	3/8	–	–	13	–	5



\* excluded from the manufacturer's warranty.

For more info, visit our website.



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#### 6-point w Magnet – normal

Model	Item No.	A/F mm	L mm	D1 mm	D2 mm	L2 mm	Pk
KM3/8-6	220110	6	30	11.5	19	3.0	5
KM3/8-7	220111	7	30	12.5	19	3.0	5
KM3/8-8	220112	8	30	14.0	19	3.0	5
KM3/8-9	220113	9	30	15.0	19	4.0	5
KM3/8-10	220114	10	30	16.5	19	4.0	5
KM3/8-11	220115	11	30	17.5	19	5.0	5
KM3/8-12	220116	12	30	19.0	19	5.0	5
KM3/8-13	220117	13	30	20.0	22	5.0	5
KM3/8-14	220118	14	30	21.5	22	6.0	5
KM3/8-15	220119	15	30	22.0	22	6.0	5
KM3/8-16	220120	16	30	24.0	22	6.0	5
KM3/8-17	220121	17	30	25.0	22	6.0	5
KM3/8-18	220122	18	3				



#### 4-point – normal

Model	Item No.	A/F mm	L mm	D1 mm	D2 mm	L2 mm	Pk
K1/2-7-VK	230487	7	40	17.5	25	8.0	5
K1/2-8-VK	230470	8	40	19.0	25	9.0	5
K1/2-10-VK	230471	10	40	21.5	25	10.0	5
K1/2-11-VK	230472	11	40	23.0	25	11.0	5
K1/2-12-VK	230473	12	40	24.0	25	12.0	5
K1/2-13-VK	230474	13	40	26.0	30	12.0	5
K1/2-14-VK	230475	14	40	27.5	30	20.0	5
K1/2-15-VK	230476	15	40	28.5	30	20.0	5
K1/2-16-VK	230477	16	40	30.0	30	20.0	5
K1/2-17-VK	230478	17	40	32.0	30	20.0	5
K1/2-18-VK	230479	18	45	34.0	30	20.0	5
K1/2-19-VK	230480	19	45	36.0	30	20.0	5
K1/2-21-VK	230481	21	45	40.0	30	20.0	5
K1/2-22-VK	230482	22	45	42.0	30	20.0	5
K1/2-24-VK	230483	24	50	44.0	30	22.0	5
K1/2-30-VK	230485	30	50	53.0	30	22.0	5
K1/2-32-VK	230486	32	50	56.0	30	22.0	5



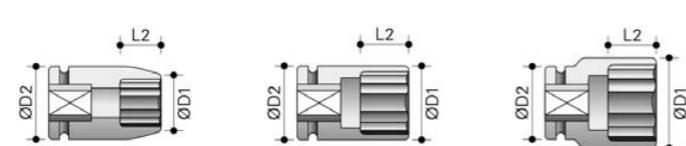
#### 6-point – normal

Model	Item No.	A/F inch	L mm	D1 mm	D2 mm	L2 mm	Pk
K1/2-3/8	230050	3/8	38	16.0	22	12.0	5
K1/2-7/16	230051	7/16	38	18.0	22	12.0	5
K1/2-1/2	230052	1/2	38	20.0	22	12.0	5
K1/2-9/16	230053	9/16	38	22.0	24	12.0	5
K1/2-5/8	230054	5/8	38	25.0	25	12.0	5
K1/2-11/16	230055	11/16	38	26.0	26	13.0	5
K1/2-3/4	230056	3/4	38	28.0	28	13.0	5
K1/2-13/16	230057	13/16	38	30.0	30	13.0	5
K1/2-7/8	230058	7/8	38	32.0	32	13.0	5
K1/2-15/16	230059	15/16	38	34.0	34	13.0	5
K1/2-1	230060	1	38	36.0	36	14.0	5
K1/2-1.1/16	230061	1 1/16	40	38.0	38	16.0	5
K1/2-1.1/8	230062	1 1/8	40	40.0	38	16.0	5
K1/2-1.3/16	230063	1 3/16	40	42.0	38	16.0	5
K1/2-1.1/4	230064	1 1/4	40	44.0	38	18.0	5
K1/2-1.3/8	230065	1 3/8	50	48.5	38	26.0	
K1/2-1.7/16	230066	1 7/16	50	50.5	38	26.0	
K1/2-1.1/2	230067	1 1/2	50	52.5	38	26.0	



#### 6-point – normal

Model	Item No.	A/F mm	L mm	D1 mm	D2 mm	L2 mm	Pk
K1/2-8	230010	8	38	14.5	25	9.0	5
K1/2-9	230011	9	38	16.0	25	12.0	5
K1/2-10	230012	10	38	17.0	25	12.0	5
K1/2-11	230013	11	38	19.0	25	12.0	5
K1/2-12	230014	12	38	20.0	24	12.0	5
K1/2-13	230015	13	38	21.0	25	12.0	5
K1/2-14	230016	14	38	22.0	25	12.0	5
K1/2-15	230017	15	38	24.0	30	12.0	5
K1/2-16	230018	16	38	25.0	30	12.0	5
K1/2-17	230019	17	38	26.0	30	13.0	5
K1/2-18	230021	18	38	27.5	30	13.0	5
K1/2-19	230022	19	38	29.0	30	13.0	5
K1/2-20	230024	20	38	30.0	30	13.0	5
K1/2-21	230025	21	38	32.0	30	13.0	5
K1/2-22	230026	22	38	32.0	30	13.0	5
K1/2-23	230027	23	38	32.5	30	13.0	5
K1/2-24	230028	24	45	35.0	30	20.0	5
K1/2-25	230029	25	45	36.0	30	20.0	5
K1/2-26	230030	26	45	37.5	30	22.0	5
K1/2-27	230031	27	50	39.0	30	22.0	5
K1/2-28	230032	28	50	40.0	30	22.0	5
K1/2-29	230033	29	50	41.0	30	22.0	5
K1/2-30	230034	30	50	42.5	30	22.0	5
K1/2-32	230035	32	50	44.0	30	28.0	5
K1/2-34	230036	34	50	45.0	30	28.0	5
K1/2-36	230037	36	50	48.0	30	28.0	5
K1/2-38	230038	38	50	53.0	38	24.0	
K1/2-41	230039	41	60	58.0	44	27.0	
K1/2-46	230040	46	70	65.0	44	30.0	
K1/2-50	230041	50	70	70.0	52	32.0	



For more info, visit our website.



#### 6-point – deep

Model	Item No.	A/F mm	L mm	D1 mm	D2 mm	L2 mm	Pk
K1/2-8-L	230210	8	78	14.5	25	13.0	5
K1/2-9-L	230211	9	78	16.0	25	14.0	5
K1/2-10-L	230212	10	78	17.0	25	14.0	5
K1/2-11-L	230213	11	78	18.0	25	14.0	5
K1/2-12-L	230214	12	78	19.5	25	14.0	5
K1/2-13-L	230215	13	78	21.0	25	14.0	5
K1/2-14-L	230216	14	78	22.0	25	17.0	5
K1/2-15-L	230217	15	78	23.5	30	17.0	5
K1/2-16-L	230218	16	78	23.5	30	17.0	5
K1/2-17-L	230219	17	78	26.0	30	17.0	5
K1/2-18-L	230220	18	78	26.0	30	17.0	5
K1/							





# Power Sockets with 1/2" square drive according to DIN 3121 G 12.5



## Torx® E – normal

Model	Item No.	A/F #	L mm	D1 mm	D2 mm	L2 mm	Pk
K1/2-E10	231450	E10	38	15.0	25	7.5	5
K1/2-E11	231451	E11	38	15.5	25	8.0	5
K1/2-E12	231452	E12	38	16.0	25	8.5	5
K1/2-E14	231453	E14	38	18.5	25	10.0	5
K1/2-E16	231454	E16	38	20.0	25	11.0	5
K1/2-E18	231455	E18	38	22.0	25	12.0	5
K1/2-E20	231456	E20	38	25.0	30	13.5	5
K1/2-E22	231457	E22	45	26.5	30	18.0	5
K1/2-E24	231458	E24	45	28.5	30	18.0	5



## Torx® E – deep

Model	Item No.	A/F #	L mm	D1 mm	D2 mm	L2 mm	Pk
K1/2-E10-L	231550	E10	80	14.0	25	7.0	5
K1/2-E12-L	231551	E12	80	15.0	25	8.0	5
K1/2-E14-L	231552	E14	80	18.0	25	9.0	5
K1/2-E16-L	231553	E16	80	19.0	25	10.0	5
K1/2-E18-L	231554	E18	80	22.0	30	11.0	5
K1/2-E20-L	231555	E20	80	24.0	30	13.0	5



## Torx® E – with joint\*

Model	Item No.	A/F #	L mm	D1 mm	D2 mm	T mm	Pk
KG1/2-E10	231610	E10	65	13.0	28	7.5	5
KG1/2-E11	231611	E11	65	14.0	28	8.0	5
KG1/2-E12	231612	E12	65	15.0	28	8.5	5
KG1/2-E14	231613	E14	65	17.0	28	10.0	5
KG1/2-E16	231614	E16	65	18.5	28	11.0	5
KG1/2-E18	231615	E18	65	20.5	28	12.0	5
KG1/2-E20	231616	E20	70	22.5	32	13.5	5
KG1/2-E22	231617	E22	70	24.5	32	15.0	5
KG1/2-E24	231618	E24	70	26.5	32	17.0	5



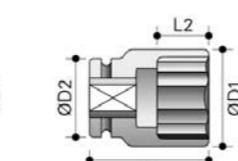
## Torx® E – thin-walled\*

Model	Item No.	A/F #	L mm	D1 mm	D2 mm	L2 mm	Pk
K1/2-E10-DW	231650	E10	38	13.0	25	7.5	5
K1/2-E11-DW	231651	E11	38	14.0	25	8.0	5
K1/2-E12-DW	231652	E12	38	15.0	25	8.5	5
K1/2-E14-DW	231653	E14	38	17.0	25	10.0	5
K1/2-E16-DW	231654	E16	38	18.5	25	11.0	5
K1/2-E18-DW	231655	E18	38	20.5	25	12.0	5
K1/2-E20-DW	231656	E20	38	22.5	30	13.5	5
K1/2-E22-DW	231657	E22	45	24.5	30	18.0	5
K1/2-E24-DW	231658	E24	45	26.5	30	18.0	5



## Stud bolt setters

Model	Item No.	Pitch	D1 mm	D2 mm	L mm	Pk
SB1/2-M6-1.0	241210	M6 × 1.0	13	25	55	
SB1/2-M8-1.0	241217	M8 × 1.0	15	25	55	
SB1/2-M8-1.25	241218	M8 × 1.25	15	25	55	
SB1/2-M10-1.0	241220	M10 × 1.0	18	25	55	
SB1/2-M10-1.25	241221	M10 × 1.25	18	25	55	
SB1/2-M10-1.5	241222	M10 × 1.5	17	25	55	
SB1/2-M12-1.25	241225	M12 × 1.25	19	25	55	
SB1/2-M12-1.5	241226	M12 × 1.5	19	25	55	
SB1/2-M12-1.75	241227	M12 × 1.75	19	25	55	
SB1/2-M14-1.5	241230	M14 × 1.5	23	25	55	
SB1/2-M14-2.0	241231	M14 × 2.0	22	25	55	
SB1/2-M16-1.5	241234	M16 × 1.5	28	30	75	
SB1/2-M16-2.0	241235	M16 × 2.0	27	30	75	
SB1/2-M18-2.5	241236	M15 × 1.5	29.5	30	75	
SB1/2-M18-2.5	241238	M18 × 2.5	29	30	75	
SB1/2-M20-1.5	241240	M20 × 1.5	30	30	75	
SB1/2-M20-2.5	241241	M20 × 2.5	30	30	75	



\* excluded from the manufacturer's warranty.

For more info, visit our website.



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# Power Sockets with 1/2" square drive according to DIN 3121 G 12.5



## Holder & interchangeable hex bits

Model	Item No.	A/F #	L mm	D1 mm	D2 mm	T mm	Pk
K1/2-AWE7/16	231350	7/16	38	22.0	30	—	—
AWE7/16-A4	231417	4	56	—	—	—	5
AWE7/16-A5	231410	5	55	—	—	—	5
AWE7/16-A6	231411	6	55	—	—	—	5
AWE7/16-A7	231418	7	55	—	—	—	5
AWE7/16-A8	231412	8	55	—	—	—	5
AWE7/16-A10	231413	10	55	—	—	—	5
AWE7/16-A12	231414	12	55	—	—	—	5
AWE7/16-A14	231415	14	55	—	—	—	5
AWE7/16-A17	231416	17	55	—	—	—	5
AWE7/16-A19	231419	19	55	—	—	—	5



## Hex driver (Allen) – deep

Model	Item No.	A/F mm	L mm	D1 mm	D2 mm	L1 mm	Pk
K1/2-A4-75	231250	4	75	—	25	11.0	5
K1/2-A5-75	231251	5	75	—	25	15.0	5


**Torx® driver TX – normal**

Model	Item No.	A/F #	L mm	D1 mm	D2 mm	L1 mm	Pk
K1/2-T20	240010	T20	55	—	25	2.8	5
K1/2-T25	240011	T25	55	—	25	3.0	5
K1/2-T27	240012	T27	55	—	25	3.0	5
K1/2-T30	240013	T30	55	—	25	3.8	5
K1/2-T40	240014	T40	55	—	25	3.8	5
K1/2-T45	240015	T45	55	—	25	4.3	5
K1/2-T47	240016	T47	55	—	25	5.0	5
K1/2-T50	240017	T50	55	—	25	5.0	5
K1/2-T55	240018	T55	55	—	25	5.5	5
K1/2-T60	240019	T60	55	—	25	8.0	5
K1/2-T70	240020	T70	55	—	25	9.4	5


**Torx® driver TR (Tamper Resistant) – normal**

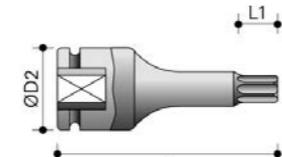
Model	Item No.	A/F #	L mm	D1 mm	D2 mm	L1 mm	Pk
K1/2-TR20	240150	TR20	55	—	25	2.8	5
K1/2-TR25	240151	TR25	55	—	25	3.0	5
K1/2-TR27	240152	TR27	55	—	25	3.0	5
K1/2-TR30	240153	TR30	55	—	25	3.8	5
K1/2-TR40	240154	TR40	55	—	25	3.8	5
K1/2-TR45	240155	TR45	55	—	25	4.3	5
K1/2-TR47	240156	TR47	55	—	25	5.0	5
K1/2-TR50	240157	TR50	55	—	25	5.0	5
K1/2-TR55	240158	TR55	55	—	25	5.5	5
K1/2-TR60	240159	TR60	55	—	25	8.0	5
K1/2-TR70	240160	TR70	55	—	25	9.4	5


**Torx® driver TX – deep**

Model	Item No.	A/F #	L mm	D1 mm	D2 mm	L1 mm	Pk
K1/2-T20L	240050	T20	75	—	25	2.8	5
K1/2-T25L	240051	T25	75	—	25	3.0	5
K1/2-T27L	240052	T27	75	—	25	3.0	5
K1/2-T30L	240053	T30	75	—	25	3.8	5
K1/2-T40L	240054	T40	75	—	25	3.8	5
K1/2-T45L	240055	T45	75	—	25	4.3	5
K1/2-T47L	240056	T47	75	—	25	5.0	5
K1/2-T50L	240057	T50	75	—	25	5.0	5
K1/2-T55L	240058	T55	75	—	25	5.5	5
K1/2-T60L	240059	T60	75	—	25	8.0	5
K1/2-T70L	240060	T70	75	—	25	9.4	5
K1/2-T25-150	240075	T25	150	—	25	3.0	5
K1/2-T27-150	240076	T27	150	—	25	3.0	5
K1/2-T30-150	240077	T30	150	—	25	3.8	5
K1/2-T40-150	240078	T40	150	—	25	3.8	5
K1/2-T45-150	240079	T45	150	—	25	4.3	5


**Torx® driver TR (Tamper Resistant) – deep**

Model	Item No.	A/F #	L mm	D1 mm	D2 mm	L1 mm	Pk
K1/2-TR20L	240210	TR20	75	—	25	2.8	5
K1/2-TR25L	240211	TR25	75	—	25	3.0	5
K1/2-TR27L	240212	TR27	75	—	25	3.0	5
K1/2-TR30L	240213	TR30	75	—	25	3.8	5
K1/2-TR40L	240214	TR40	75	—	25	3.8	5
K1/2-TR45L	240215	TR45	75	—	25	4.3	5
K1/2-TR47L	240216	TR47	75	—	25	5.0	5
K1/2-TR50L	240217	TR50	75	—	25	5.0	5
K1/2-TR55L	240218	TR55	75	—	25	5.5	5
K1/2-TR60L	240219	TR60	75	—	25	8.0	5
K1/2-TR70L	240220	TR70	75	—	25	9.4	5



For more info, visit our website.



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**Torx® driver TX – w joint\***

Model	Item No.	A/F #	L mm	D1 mm	D2 mm	L1 mm	Pk
KG1/2-T25	240110	T25	70	—	28	3.0	5
KG1/2-T27	240111	T27	70	—	28	3.0	5
KG1/2-T30	240112	T30	70	—	28	3.8	5
KG1/2-T40	240113	T40	70	—	28	3.8	5
KG1/2-T45	240114	T45	70	—	28	4.3	5
KG1/2-T47	240115	T47	70	—	28	5.0	5
KG1/2-T50	240116	T50	70	—	28	5.0	5
KG1/2-T55	240117	T55	70	—	28	5.5	5
KG1/2-T60	240118	T60	70	—	28	8.0	5


**Triple square driver XZN – normal**

Model	Item No.	A/F #	L mm	D1 mm	D2 mm	L1 mm	Pk
K1/2-XZN-5	240250	M5	55	—	25	7.0	5
K1/2-XZN-6	240251	M6	55	—	25	7.0	5
K1/2-XZN-8	240252	M8	55	—	25	9.0	5
K1/2-XZN-10	240253	M10	55	—	25	9.0	5
K1/2-XZN-12	240254	M12	55	—	25	11.0	5
K1/2-XZN-14	240255	M14	55	—	25	11.0	5
K1/2-XZN-16	240256	M16	55	—	25	13.0	5


**Triple square driver XZN – deep**

Model	Item No.	A
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# Power Sockets with 1/2" square drive according to DIN 3121 G 12.5



## 6-point w magnet – normal

Model	Item No.	A/F mm	L mm	D1 mm	D2 mm	L2 mm	Pk
KM1/2-8	230110	8	38	15.0	25	3.0	5
KM1/2-9	230111	9	38	16.0	25	4.0	5
KM1/2-10	230112	10	38	17.5	25	4.0	5
KM1/2-11	230113	11	38	18.5	25	5.0	5
KM1/2-12	230114	12	38	20.0	25	5.0	5
KM1/2-13	230115	13	38	21.0	25	6.0	5
KM1/2-14	230116	14	38	22.5	25	6.0	5
KM1/2-15	230117	15	38	23.7	30	6.0	5
KM1/2-16	230118	16	38	25.0	30	6.0	5
KM1/2-17	230119	17	38	26.5	30	6.0	5
KM1/2-18	230120	18	38	27.5	30	7.0	5
KM1/2-19	230121	19	38	29.0	30	7.0	5
KM1/2-20	230122	20	38	30.0	30	7.0	5
KM1/2-21	230123	21	38	31.0	30	8.0	5
KM1/2-22	230124	22	38	32.5	30	8.0	5
KM1/2-24	230125	24	45	35.0	30	10.0	5



## Torx® E with magnet – normal

Model	Item No.	A/F #	L mm	D1 mm	D2 mm	L2 mm	Pk
KM1/2-E10	231510	E10	38	14.5	25	5.0	5
KM1/2-E11	231515	E11	38	15.0	25	5.0	5
KM1/2-E12	231511	E12	38	16.0	25	6.0	5
KM1/2-E14	231512	E14	38	18.0	25	8.0	5
KM1/2-E16	231513	E16	38	20.0	25	9.0	5
KM1/2-E18	231514	E18	38	22.0	25	9.0	5
KM1/2-E20	231516	E20	38	25.0	30	10.0	5
KM1/2-E22	231517	E22	45	27.0	30	10.0	5
KM1/2-E24	231518	E24	45	29.0	30	11.0	5



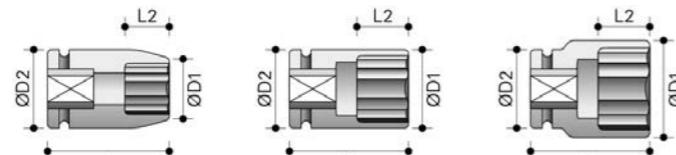
## 6-point w magnet – inch

Model	Item No.	A/F Zoll	L mm	D1 mm	D2 mm	L2 mm	Pk
KM1/2-3/8	230150	3/8	38	—	—	—	5
KM1/2-1/2	230151	1/2	38	—	—	—	5



## 6-point w magnet – deep

Model	Item No.	A/F mm	L mm	D1 mm	D2 mm	L2 mm	Pk
KM1/2-8-L	230310	8	78	15.0	25	3.0	5
KM1/2-9-L	230311	9	78	16.0	25	4.0	5
KM1/2-10-L	230312	10	78	17.5	25	4.0	5
KM1/2-11-L	230313	11	78	18.5	25	5.0	5
KM1/2-12-L	230314	12	78	20.0	25	5.0	5
KM1/2-13-L	230315	13	78	21.0	25	5.0	5
KM1/2-14-L	230316	14	78	22.5	25	6.0	5
KM1/2-15-L	230317	15	78	23.7	30	6.0	5
KM1/2-16-L	230318	16	78	25.0	30	6.0	5
KM1/2-17-L	230319	17	78	26.5	30	6.0	5
KM1/2-18-L	230320	18	78	27.5	30	7.0	5
KM1/2-19-L	230321	19	78	29.0	30	7.0	5
KM1/2-20-L	230322	20	78	30.0	30	7.0	5
KM1/2-21-L	230323	21	78	31.0	30	8.0	5
KM1/2-22-L	230324	22	78	32.5	30	8.0	5
KM1/2-23-L	230325	24	78	35.0	30	10.0	5



For more info, visit our website.



# Power Sockets with 3/4" square drive according to DIN 3121 G 20



## 6-point – normal

Model	Item No.	A/F #	L mm	D1 mm	D2 mm	L2 mm	Pk
K3/4-37	250034	37	58	56.0	44	25	—
K3/4-38	250035	38	58	57.0	44	25	—
K3/4-39	250036	39	58	58.0	44	25	—
K3/4-40	250037	40	58	58.0	44	25	—
K3/4-41	250038	41	58	60.0	44	27	—
K3/4-42	250039	42	58	62.0	44	27	—
K3/4-43	250040	43	63	63.0	44	27	—
K3/4-44	250051	44	63	63.0	44	27	—
K3/4-45	250052	45	63	66.0	44	27	—
K3/4-46	250041	46	63	67.0	44	30	—
K3/4-47	250042	47	68	68.0	44	30	—
K3/4-49	250044	49	70	70.0	44	30	—
K3/4-50	250045	50	72	71.0	54	32	—
K3/4-55	250046	55	74	77.0	54	35	—
K3/4-56	250053	56	74	80.0	54	35	—
K3/4-57	250054	57	74	84.0	54	35	—
K3/4-60	250047	60	75	84.0	54	37	—
K3/4-63	250048	63	75	86.0	54	37	—
K3/4-65	250049	65	78	88.0	54	40	—
K3/4-67	250050	67	80	90.0	54	40	—
K3/4-70	250055	70	80	90.0	54	40	—
K3/4-75	250056	75	83	102	64	42	—



## 6-point – normal – inch

Model	Item No.	A/F inch	L mm	D1 mm	D2 mm	L2 mm	Pk
K3/4-11/16	250110	11/16	50	29.0	38	12	—
K3/4-3/4	250111	3/4	50	30.0	38	14	—
K3/4-							



# Power Sockets with 3/4" square drive according to DIN 3121 G 20



## 12-point – deep

Model	Item No.	A/F mm	L mm	D1 mm	D2 mm	L2 mm	Pk
K3/4-13-DSKL	250450	13	95	24.5	44	13	–
K3/4-14-DSKL	250451	14	95	25.5	44	14	–
K3/4-15-DSKL	250452	15	95	27.0	44	15	–
K3/4-16-DSKL	250453	16	95	28.0	44	16	–
K3/4-17-DSKL	250454	17	95	29.5	44	17	–
K3/4-18-DSKL	250455	18	95	31.0	44	18	–
K3/4-19-DSKL	250456	19	95	32.0	44	19	–
K3/4-20-DSKL	250457	20	95	34.0	44	20	–
K3/4-21-DSKL	250458	21	95	35.0	44	21	–
K3/4-22-DSKL	250459	22	95	37.0	44	22	–
K3/4-23-DSKL	250460	23	95	38.0	44	23	–
K3/4-24-DSKL	250461	24	95	39.0	44	24	–
K3/4-25-DSKL	250462	25	95	41.0	44	25	–
K3/4-26-DSKL	250463	26	95	42.0	44	26	–
K3/4-27-DSKL	250464	27	95	43.0	44	27	–
K3/4-28-DSKL	250465	28	95	44.0	44	28	–
K3/4-29-DSKL	250466	29	95	46.0	44	29	–
K3/4-30-DSKL	250467	30	95	47.0	44	30	–
K3/4-31-DSKL	250468	31	95	48.0	44	31	–
K3/4-32-DSKL	250469	32	95	49.0	44	32	–
K3/4-33-DSKL	250470	33	95	51.0	44	33	–
K3/4-34-DSKL	250471	34	95	52.0	44	34	–
K3/4-35-DSKL	250472	35	95	53.0	44	35	–
K3/4-36-DSKL	250473	36	95	54.0	44	36	–
K3/4-37-DSKL	250474	37	95	56.0	44	37	–
K3/4-38-DSKL	250475	38	95	57.0	44	38	–
K3/4-39-DSKL	250476	39	95	58.0	44	38	–
K3/4-40-DSKL	250477	40	95	59.5	44	38	–
K3/4-41-DSKL	250478	41	95	61.0	44	38	–
K3/4-42-DSKL	250479	42	95	62.0	44	38	–
K3/4-43-DSKL	250480	43	95	63.5	44	38	–
K3/4-44-DSKL	250481	44	95	64.5	44	38	–
K3/4-45-DSKL	250482	45	95	65.5	44	38	–
K3/4-46-DSKL	250483	46	100	66.5	44	38	–
K3/4-47-DSKL	250484	47	100	68.0	44	38	–
K3/4-48-DSKL	250485	48	100	69.0	44	38	–
K3/4-49-DSKL	250486	49	100	70.0	44	38	–
K3/4-50-DSKL	250487	50	100	71.0	54	38	–
K3/4-51-DSKL	250488	51	100	72.0	54	40	–
K3/4-52-DSKL	250489	52	100	74.0	54	40	–
K3/4-53-DSKL	250490	53	100	75.0	54	40	–
K3/4-55-DSKL	250492	55	105	78.0	54	40	–
K3/4-56-DSKL	250493	56	105	79.0	54	40	–
K3/4-57-DSKL	250494	57	105	80.0	54	40	–

## 12-point – deep

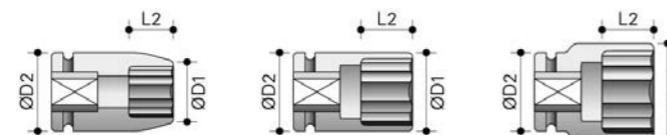
Model	Item No.	A/F mm	L mm	D1 mm	D2 mm	L2 mm	Pk
K3/4-58-DSKL	250495	58	105	81.0	54	40	–
K3/4-60-DSKL	250496	60	105	84.0	54	42	–
K3/4-63-DSKL	250497	63	105	87.0	54	42	–
K3/4-65-DSKL	250498	65	105	90.0	54	66	–
K3/4-67-DSKL	250499	67	105	92.0	54	66	–
K3/4-68-DSKL	250500	68	105	94.0	54	66	–
K3/4-70-DSKL	250501	70	105	96.0	54	66	–
K3/4-73-DSKL	250502	73	108	100	54	66	–
K3/4-75-DSKL	250503	75	108	102	64	68	–

## Torx® E – normal

Model	Item No.	A/F #	L mm	D1 mm	D2 mm	L2 mm	Pk
K3/4-E18	250570	E18	56	25	44	12.5	
K3/4-E20	250571	E20	56	27	44	14.0	
K3/4-E24	250573	E24	56	33	44	16.5	
K3/4-E32	250577	E32	56	44	44	24.5	

## Stud bolt setters

Model	Item No.	Pitch	D1 mm	D2 mm	L mm	Pk
SB3/4-M16-2.0	251162	M16 x 2.0	29	44	100	
SB3/4-M20-2.5	251203	M20 x 2.5	35	44	100	
SB3/4-M24-1.5	251241	M24 x 1.5	37	44	100	
SB3/4-M24-3.0	251244	M24 x 3.0	37	44	100	
SB3/4-M27-3.0	251274	M27 x 3.0	42	44	100	
SB3/4-M28-3.5	251285	M28 x 3.5	42	44	100	
SB3/4-M30-3.5	251305	M30 x 3.5	43	44	100	



For more info, visit our website.



# Power Sockets with 3/4" square drive according to DIN 3121 G 20



## Holder & interchangeable hex bits

Model	Item No.	A/F mm	L mm	D1 mm	D2 mm	T mm	Pk
K3/4-AWE16	250650	16	52	32.0	44	16.0	–
AWE16-A10	250710	10	40	–	–	–	–
AWE16-A12	250711	12	40	–	–	–	–
AWE16-A14	250712	14	40	–	–	–	–
AWE16-A17	250713	17	40	–	–	–	–
AWE16-A19	250714	19	40	–	–	–	–
AWE16-A22	250715	22	40	–	–	–	–
AWE16-A24	250716	24	40	–	–	–	–



## Hex driver (Allen) – normal

Model	Item No.	A/F mm	L mm	D1 mm	D2 mm	L1 mm	Pk

# Power Sockets with 1" square drive according to DIN 3121 H 25



## 4-point – normal

Model	Item No.	A/F #	L mm	D1 mm	D2 mm	L2 mm	Pk
K1-17-VK	260001	17	57	52.0	52	24	
K1-19-VK	260002	19	57	52.0	52	24	
K1-20-VK	260003	20	57	52.0	52	24	
K1-21-VK	260004	21	57	52.0	52	24	
K1-1-VK	260201	1"	60	52.0	54	30	



## 6-point – normal

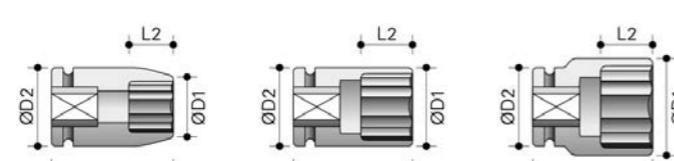
Model	Item No.	A/F mm	L mm	D1 mm	D2 mm	L2 mm	Pk
K1-17	260010	17	60	34.0	54	12	–
K1-18	260011	18	60	35.0	54	13	–
K1-19	260012	19	60	35.5	54	13	–
K1-20	260013	20	60	37.0	54	14	–
K1-21	260014	21	60	37.5	54	15	–
K1-22	260015	22	60	40.0	54	15	–
K1-23	260016	23	60	41.0	54	16	–
K1-24	260017	24	60	42.0	54	18	–
K1-25	260018	25	60	43.0	54	18	–
K1-26	260019	26	60	44.5	54	18	–
K1-27	260020	27	60	46.0	54	19	–
K1-28	260021	28	62	47.0	54	19	–
K1-29	260022	29	62	48.0	54	19	–
K1-30	260023	30	62	50.0	54	21	–
K1-31	260024	31	62	51.0	54	21	–
K1-32	260025	32	62	52.0	54	22	–
K1-33	260026	33	62	53.0	54	22	–
K1-34	260027	34	62	55.0	54	22	–
K1-35	260028	35	65	56.0	54	22	–
K1-36	260029	36	67	57.0	54	25	–
K1-37	260030	37	67	59.0	54	25	–
K1-38	260031	38	67	59.5	54	25	–
K1-39	260032	39	70	60.0	54	25	–
K1-40	260033	40	70	62.0	54	25	–
K1-41	260034	41	70	64.0	54	27	–
K1-42	260035	42	74	65.0	54	27	–
K1-43	260036	43	74	66.0	54	27	–
K1-45	260037	45	74	68.0	54	27	–
K1-46	260038	46	76	69.5	54	30	–
K1-47	260039	47	76	72.0	54	32	–
K1-48	260040	48	76	73.0	54	32	–
K1-50	260041	50	80	74.0	54	35	–

## 6-point – normal

Model	Item No.	A/F mm	L mm	D1 mm	D2 mm	L2 mm	Pk
K1-52	260042	52	84	77.0	54	35	–
K1-53	260043	53	84	78.0	54	35	–
K1-54	260044	54	84	79.0	54	35	–
K1-55	260045	55	84	81.0	54	35	–
K1-56	260046	56	84	83.0	54	40	–
K1-57	260047	57	84	84.0	54	40	–
K1-58	260048	58	87	85.0	54	40	–
K1-60	260049	60	87	87.0	54	42	–
K1-62	260050	62	87	89.0	54	42	–
K1-63	260051	63	87	90.0	54	42	–
K1-65	260052	65	90	93.0	54	42	–
K1-70	260053	70	96	100.0	54	42	–
K1-75	260054	75	98	106.0	86	45	–
K1-80	260055	80	100	112.0	86	48	–
K1-85	260056	85	105	118.0	86	52	–
K1-90	260057	90	105	125.0	86	52	–
K1-95	260058	95	115	131.0	86	52	–
K1-100	260059	100	115	137.0	95	58	–
K1-105	260060	105	115	143.0	95	58	–

## 6-point – normal – inch

Model	Item No.	A/F inch	L mm	D1 mm	D2 mm	L2 mm	Pk
K1-1/1	260109	1"	58	42.0	51	18	–
K1-1.1/8	260110	1 1/8	58	46.0	51	19	–
K1-1.5/16	260111	1 5/16	62	53.0	52	21	–
K1-1.7/16	260112	1 7/16	62	56.0	52	26	–
K1-1.1/2	260113	1 1/2	62	58.0	52	26	–
K1-1.11/16	260114	1 11/16	64	65.0	52	27	–
K1-1.7/8	260115	1 7/8	66	70.0	58	28	–
K1-2.1/16	260116	2 1/16	70	75.0	58	31	–
K1-2.1/4	260117	2 1/4	75	84.0	62	34	–
K1-2.7/16	260118	2 7/16	78	89.0	62	35	–
K1-2.1/2	260119	2 1/2	80	91.0	62	36	–
K1-2.7/8	260120	2 7/8	87	102.0	62	41	–



For more info, visit our website.



# Power Sockets with 1" square drive according to DIN 3121 H 25



## 6-point – deep

Model	Item No.	A/F mm	L mm	D1 mm	D2 mm	L2 mm	Pk
K1-80-L	260188	80	135	112.0	86	48	–
K1-85-L	260189	85	140	118.0	86	52	–
K1-90-L	260190	90	140	125.0	86	52	–
K1-95-L	260191	95	140	131.0	86	52	–
K1-100-L	260192	100	140	137.0	95	58	–
K1-105-L	260193	105	155	143.0	95	58	–
K1-110-L	260194	110	155	149.0	95	60	–
K1-115-L	260195	115	155	155.0	95	62	–

## 6-point – deep – inch

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# Power Sockets with 1" square drive according to DIN 3121 H 25



## Holder & interchangeable hex bits

Model	Item No.	A/F mm	L mm	D1 mm	D2 mm	T mm	Pk
K1-AWE22	260750	22	70	44.0	54	—	—
AWE22-A14	260810	14	50	—	—	—	—
AWE22-A17	260811	17	50	—	—	—	—
AWE22-A19	260812	19	50	—	—	—	—
AWE22-A22	260813	22	50	—	—	—	—
AWE22-A24	260814	24	50	—	—	—	—
AWE22-A27	260815	27	50	—	—	—	—
AWE22-A30	260816	30	50	—	—	—	—
AWE22-A32	260817	32	50	—	—	—	—
AWE22-A36	260818	36	50	—	—	—	—



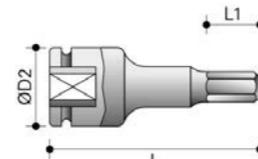
## Hex driver (Allen) – normal

Model	Item No.	A/F mm	L mm	D1 mm	D2 mm	L1 mm	Pk
K1-A14	260649	14	75	—	54	12	—
K1-A17	260650	17	75	—	54	15	—
K1-A19	260651	19	75	—	54	17	—
K1-A22	260652	22	75	—	54	20	—
K1-A24	260653	24	75	—	54	20	—
K1-A27	260654	27	75	—	54	20	—
K1-A30	260655	30	75	—	54	20	—
K1-A32	260656	32	75	—	54	20	—
K1-A36	260657	36	75	—	54	20	—



## Rubber ring & locking pin

Model	Item No.	Size inch	—	D1 mm	D2 mm	—	Pk
RS-1	260850	1	—	—	54	—	5
D01100-0-086	260851	1	—	—	86	—	5
D01100-0-095	260852	1	—	—	95	—	5



For more info, visit our website.

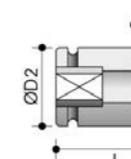


# Power Sockets with 1.5" square drive according to DIN 3121 H 40

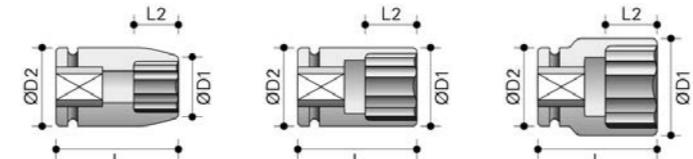


## 6-point – normal

Model	Item No.	A/F mm	L mm	D1 mm	D2 mm	L2 mm	Pk
K1.1/2-30	270010	30	78	56	86	21	—
K1.1/2-32	270011	32	78	58	86	22	—
K1.1/2-35	270012	35	78	62	86	22	—
K1.1/2-36	270013	36	78	64	86	24	—
K1.1/2-37	270014	37	78	65	86	24	—
K1.1/2-38	270015	38	78	66	86	26	—
K1.1/2-40	270016	40	78	68	86	28	—
K1.1/2-41	270017	41	80	70	86	28	—
K1.1/2-45	270019	45	84	75	86	30	—
K1.1/2-46	270020	46	84	76	86	30	—
K1.1/2-47	270021	47	84	77	86	32	—
K1.1/2-48	270022	48	84	79	86	32	—
K1.1/2-50	270023	50	87	81	87	32	—
K1.1/2-52	270024	52	87	83	86	34	—
K1.1/2-54	270025	54	90	86	86	37	—
K1.1/2-55	270026	55	90	86	86	37	—
K1.1/2-56	270027	56	92	86	86	37	—
K1.1/2-58	270028	58	92	92	86	39	—
K1.1/2-60	270029	60	92	93	86	39	—
K1.1/2-61	270030	61	95	95	86	42	—
K1.1/2-62	270031	62	95	96	86	42	—
K1.1/2-65	270032	65	95	97	86	42	—
K1.1/2-68	270033	68	100	104	86	46	—
K1.1/2-70	270034	70	100	105	86	46	—
K1.1/2-72	270035	72	108	108	86	49	—
K1.1/2-75	270036	75	108	110	86	49	—
K1.1/2-78	270037	78	115	115	86	53	—
K1.1/2-80	270038	80	115	116	86	53	—
K1.1/2-85	270039	85	118	125	86	56	—
K1.1/2-90	270040	90	123	130	86	59	—
K1.1/2-95	270041	95	123	137	95	62	—
K1.1/2-100	270042	100	130	140	95	65	—
K1.1/2-105	270043	105	130	150	95	68	—
K1.1/2-110	270044	110	135	156	95	72	—
K1.1/2-115	270045	115	140	160	95	77	—
K1.1/2-125	270047	125	140	175	95	77	—



For more info, visit our website.



## 6-point – deep

Model	Item No.	A/F mm	L mm	D1 mm	D2 mm	L2 mm	Pk
K1.1/2-36-L	270109	36	115	64	86	24	—
K1.1/2-41-L	270110	41	115	70	86	28	—
K1.1/2-42-L	270111	42	115	71	86	28	—
K1.1/2-46-L	270112	46	115	76	86	30	—
K1.1/2-50-L	270113	50	135	81	86	34	—
K1.1/2-54-L	270114	54	140	86	86	37	—
K1.1/2-55-L	270115	55	140	86	86	37	—
K1.1/2-56-L	270132	56	140	88	86	37	—
K1.1/2-60-L	270116	60	150	94	86	39	—
K1.1/2-63-L	270117	63	150	97	86	42	—
K1.1/2-65-L	270118	65	150	100	86	42	—
K1.1/2-70-L	270119	70	160	106	86	46	—
K1.1/2-75-L	270120	75	170	112	86	49	—
K1.1/2-80-L	270121	80	170	119	86	53	—
K1.1/2-85-L	270122	85	170				

## Power Sockets with 1.5" square drive according to DIN 3121 H 40



### Hex driver (Allen) – normal

Model	Item No.	A/F mm	L mm	D1 mm	D2 mm	L1 mm	Pk
K1.1/2-A19	270158	19	105	–	86	20	–
K1.1/2-A22	270159	22	105	–	86	20	–
K1.1/2-A24	270160	24	105	–	86	20	–
K1.1/2-A27	270161	27	105	–	86	20	–
K1.1/2-A30	270162	30	105	–	86	20	–
K1.1/2-A32	270163	32	105	–	86	20	–
K1.1/2-A33	270164	33	105	–	86	20	–
K1.1/2-A41	270157	41	105	–	86	20	–
K1.1/2-A46	270165	46	105	–	86	20	–
K1.1/2-A50	270166	50	105	–	86	20	–
K1.1/2-A55	270167	55	105	–	86	20	–



### Hex driver (Allen) – deep

Model	Item No.	A/F mm	L mm	D1 mm	D2 mm	L1 mm	Pk
K1.1/2-A19-L	270150	19	120	–	86	20	–
K1.1/2-A22-L	270151	22	120	–	86	20	–
K1.1/2-A24-L	270152	24	120	–	86	20	–
K1.1/2-A27-L	270153	27	120	–	86	20	–
K1.1/2-A30-L	270154	30	120	–	86	24	–
K1.1/2-A32-L	270155	32	120	–	86	24	–
K1.1/2-A33-L	270168	33	120	–	86	24	–
K1.1/2-A36-L	270156	36	120	–	86	28	–
K1.1/2-A38-L	270169	38	120	–	86	28	–
K1.1/2-A41-L	270170	41	120	–	86	34	–
K1.1/2-A46-L	270171	46	120	–	86	38	–
K1.1/2-A50-L	270172	50	120	–	86	38	–
K1.1/2-A55-L	270173	55	120	–	86	43	–



## Power Sockets with 2.5" square drive according to DIN 3121 H 63



### 6-point – normal

Model	Item No.	A/F mm	L mm	D1 mm	D2 mm	L2 mm	Pk
K2.1/2-60	280010	60	125	99	127	37	–
K2.1/2-65	280011	65	130	105	127	40	–
K2.1/2-70	280012	70	130	110	127	40	–
K2.1/2-75	280013	75	140	118	127	42	–
K2.1/2-80	280015	80	140	124	127	45	–
K2.1/2-85	280016	85	140	130	127	52	–
K2.1/2-90	280017	90	145	136	127	52	–
K2.1/2-95	280018	95	145	143	127	52	–
K2.1/2-100	280019	100	150	149	127	58	–
K2.1/2-105	280020	105	155	155	127	58	–
K2.1/2-110	280021	110	160	161	127	60	–
K2.1/2-115	280022	115	165	167	127	62	–
K2.1/2-120	280023	120	170	176	127	67	–
K2.1/2-125	280024	125	175	184	127	72	–
K2.1/2-130	280025	130	175	188	152	72	–
K2.1/2-135	280026	135	180	195	152	77	–
K2.1/2-140	280027	140	180	204	152	77	–
K2.1/2-145	280028	145	185	207	152	83	–
K2.1/2-150	280029	150	185	214	152	83	–
K2.1/2-155	280030	155	190	224	152	90	–
K2.1/2-160	280031	160	190	227	152	90	–
K2.1/2-165	280032	165	195	234	152	95	–
K2.1/2-170	280033	170	195	244	152	95	–
K2.1/2-175	280034	175	200	247	152	100	–
K2.1/2-180	280035	180	200	254	152	100	–
K2.1/2-185	280036	185	210	257	152	105	–
K2.1/2-190	280037	190	210	265	152	105	–
K2.1/2-200	280038	200	220	275	152	110	–



### Rubber ring & locking pin

Model	Item No.	Size inch	–	D1 mm	D2 mm	–	Pk
RS-2.1/2	280050	2 1/2	–	–	–	–	5



## Power Sockets – Sets



13-parts – 6-point – deep

Model	Item No.	A/F [mm]
KS3/8-13-L	222170	7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19



13-parts – 6-point – thin-walled

Model	Item No.	A/F [mm]
KS3/8-13-DW	222180	7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19



10-parts – 6-point – normal

Model	Item No.	A/F [mm]
KS1/2-10	231710	9 - 10 - 11 - 13 - 14 - 17 - 19 - 22 - 24 - 27



10-parts – 6-point – deep

Model	Item No.	A/F [mm]
KS1/2-10-L	231720	10 - 11 - 13 - 14 - 17 - 19 - 21 - 22 - 24 - 27



26-parts – 6-point – normal

Model	Item No.	A/F [mm]
KS1/2-26	231726	10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 25 - 26 - 27 - 28 - 29 - 30 - 32 - 33 - 34 - 35 - 36



26-parts – 6-point – deep

Model	Item No.	A/F [mm]
KS1/2-26-L	231736	10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 25 - 26 - 27 - 28 - 29 - 30 - 32 - 33 - 34 - 35 - 36



26-parts – 12-point – deep

Model	Item No.	A/F [mm]
KS1/2-26-DS	231729	10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 25 - 26 - 27 - 28 - 29 - 30 - 32 - 33 - 34 - 35 - 36



## Power Sockets – Sets



9-teilig – Hex driver

Model	Item No.	A/F [mm]
KS1/2-A-9	231716	4 - 5 - 6 - 8 - 10 - 12 - 14 - 17 - 19



7-parts – Triple square driver (XZN)

Model	Item No.	Size
KS1/2-XZ-7	231719	M5 - M6 - M8 - M10 - M12 - M14 - M16



13-parts – Quick change holder & 7/16 bit inserts

Model	Item No.	Hex driver [mm]	Torx®
KS1/2-13-7/16	231739	6 - 8 - 10 - 12 - 14 - 17	T30 - T40 - T45 - T50 - T55 - T60



10-parts – 6-point – normal

Model	Item No.	A/F [mm]
KS3/4-10	251010	21 - 22 - 24 - 27 - 30 - 32 - 33 - 36 - 41 - 46



10-parts – 6-point – deep

Model	Item No.	A/F [mm]
KS3/4-10-L	251020	21 - 22 - 24 - 27 - 30 - 32 - 33 - 36 - 41 - 46



7-parts – 6-point – deep

Model	Item No.	A/F [mm]
KS1-7-L	261010	24 - 27 - 30 - 32 - 33 - 36 - 41



## Ext. Adaptors with square drive according to DIN 3121 G



### Extension – w pin hole

Model	Item No.	SqD inch	L mm	D2 mm	Pk
KV1/4-50	313110	1/4	50	13	–
KV1/4-100	313111	1/4	100	13	–
KV1/4-150	313112	1/4	150	13	–
KV3/8-75	313113	3/8	75	19	–
KV3/8-100	313114	3/8	100	19	–
KV3/8-125	313115	3/8	125	19	–
KV3/8-150	313116	3/8	150	19	–
KV3/8-200	313117	3/8	200	19	–
KV3/8-250	313118	3/8	250	19	–
KV1/2-75	313119	1/2	75	25	–
KV1/2-100	313120	1/2	100	25	–
KV1/2-125	313121	1/2	125	25	–
KV1/2-150	313122	1/2	150	25	–
KV1/2-175	313123	1/2	175	25	–
KV1/2-250	313124	1/2	250	25	–
KV1/2-300	313125	1/2	300	25	–
KV1/2-460	313126	1/2	460	25	–
KV1/2-610	313127	1/2	610	25	–
KV1/2-915	313128	1/2	915	25	–
KV3/4-75	313129	3/4	75	44	–
KV3/4-100	313130	3/4	100	44	–
KV3/4-125	313131	3/4	125	44	–
KV3/4-150	313132	3/4	150	44	–
KV3/4-175	313133	3/4	175	44	–
KV3/4-200	313134	3/4	200	44	–
KV3/4-250	313135	3/4	250	44	–
KV3/4-330	313137	3/4	330	44	–
KV3/4-400	313138	3/4	400	44	–
KV1-75	313139	1	75	54	–
KV1-100	313140	1	100	54	–
KV1-125	313141	1	125	54	–
KV1-150	313142	1	150	54	–
KV1-175	313143	1	175	54	–
KV1-200	313144	1	200	54	–
KV1-250	313145	1	250	54	–
KV1-300	313146	1	300	54	–
KV1-330	313147	1	330	54	–
KV1-350	313149	1	350	54	–
KV1-400	313148	1	400	54	–
KV1.1/2-125	313158	1.1/2	125	86	–
KV1.1/2-175	313150	1.1/2	175	86	–
KV1.1/2-250	313151	1.1/2	250	86	–
KV1.1/2-500	313153	1.1/2	500	86	–
KV2.1/2-250	313155	2.1/2	250	127	–
KV2.1/2-500	313157	2.1/2	500	127	–

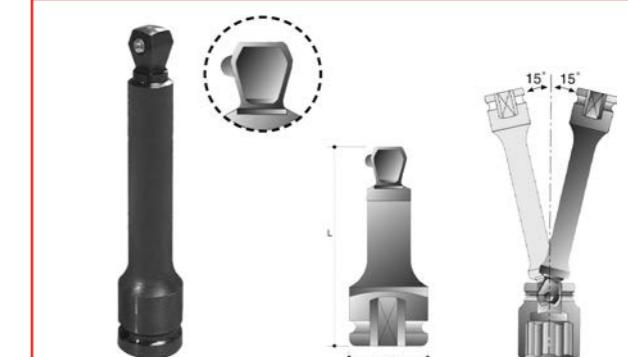
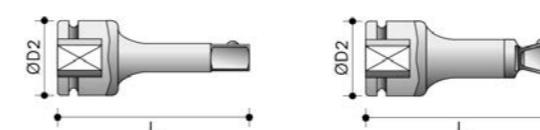


## Ext. Adaptors with square drive according to DIN 3121 G



### Extension – w ball retainer

Model	Item No.	SqD inch	L mm	D2 mm	Pk
KV3/8-KS-75	313050	3/8	75	19	–
KV3/8-KS-100	313051	3/8	100	19	–
KV3/8-KS-125	313052	3/8	125	19	–
KV3/8-KS-150	313053	3/8	150	19	–
KV3/8-KS-250	313054	3/8	250	19	–
KV1/2-KS-75	313055	1/2	75	25	–
KV1/2-KS-100	313056	1/2	100	25	–
KV1/2-KS-125	313057	1/2	125	25	–
KV1/2-KS-250	313058	1/2	250	25	–



The „wobble“ extension has a special geometry on the output square. This allows the user to use a swing-out angle of up to 15° between the power socket and the extension. This makes it easy and safe to reach many otherwise hard-to-reach bolted connections.





## QC Adaptors with square drive according to DIN 3121 G



### Quick change holder (A) – w ball

Model	Item No.	In inch	Out inch	L mm	D1 mm	D2 mm	Pk
KQC1/4-1/4	313510	1/4	1/4	35	–	13	–
KQC1/4-3/8	313530	1/4	3/8	42	–	13	–
KQC3/8-3/8	313511	3/8	3/8	46	–	19	–
KQC3/8-1/2	313517	3/8	1/2	60	–	22	–
KQC1/2-3/8	313512	1/2	3/8	54	–	25	–
KQC1/2-1/2	313513	1/2	1/2	60	–	25	–
KQC3/4-1/2	313518	3/4	1/2	70	–	44	–
KQC3/4-3/4	313514	3/4	3/4	78	–	44	–
KQC1-3/4	313515	1	3/4	90	–	54	–
KQC1-3/4	313519	1	3/4	300	–	54	–
KQC1-1	313516	1	1	100	–	54	–

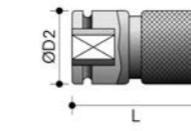
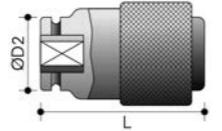
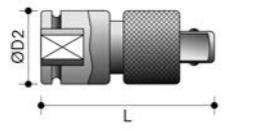
### Quick change bit holder (D) – w snap ring

Model	Item No.	In inch	Out inch	L mm	D1 mm	D2 mm	Pk
KQC3/8-1/4D	313557	3/8	1/4	33	–	19	–
KQC1/2-1/4D	313558	1/2	1/4	41	–	25	–



### Quick change bit holder (F) – w ball

Model	Item No.	In inch	Out inch	L mm	D1 mm	D2 mm	Pk
KQC3/8-1/4F	313574	3/8	1/4	45	–	19	–
KQC3/8-7/16F	313573	3/8	7/16	51	–	22	–
KQC1/2-7/16F	313572	1/2	7/16	54	–	25	–



## Bit Adaptors with square drive according to DIN 3121 G



### Bit adaptor – normal – w snap ring

Model	Item No.	SqD inch	Hex inch	L mm	D1 mm	D2 mm	Pk
KVT3/8-D6.3-32	313613	3/8	1/4	32	12.5	19	–
KVT3/8-D8	313614	3/8	5/16	37	14	19	–
KVT3/8-H12.5	313615	3/8	1/2	37	19	19	–
KVT1/2-D6.3	313616	1/2	1/4	40	12.5	25	–
KVT1/2-D8	313617	1/2	5/16	40	15.5	25	–
KVT1/2-H12.5	313618	1/2	1/2	40	20	25	–

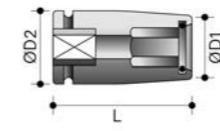
### Bit adaptor – deep

Model	Item No.	SqD inch	Hex inch	L mm	D1 mm	D2 mm	Pk
KVT1/4-D6.3-L	313625	1/4	1/4	75	–	13	–
KVT3/8-D6.3-L	313626	3/8	1/4	75	–	19	–
KVT3/8-D8-L	313686	3/8	5/16	75	–	19	–
KVT1/2-D6.3-L	313627	1/2	1/4	75	–	25	–
KVT1/2-D8-L	313687	1/2	5/16	75	–	25	–



### Bit adaptor – deep – w magnet

Model	Item No.	SqD inch	Hex inch	L mm	D1 mm	D2 mm	Pk
KMVT1/4-D6.3-L	313650	1/4	1/4	75	–	13	–
KMVT3/8-D6.3-L	313651	3/8	1/4	75	–	19	–











## Bits with 1/4" hexagonal drive DIN 3126 / ISO 1173 - C 6.3 \*



### Hexalobular Torx® – tough

Model	Item No.	TX #	L mm	Ø mm	Pk
T10-C6.3-18	113001	10	18	4	10
T15-C6.3-18	113002	15	18	4	10
T20-C6.3-18	113003	20	18	5	10
T25-C6.3-18	113004	25	18	5	10
T30-C6.3-18	113005	30	18	6	10
T40-C6.3-18	113006	40	18	6.3	10
T5-C6.3-25	113010	5	25	3	10
T6-C6.3-25	113011	6	25	3	10
T7-C6.3-25	113012	7	25	3	10
T8-C6.3-25	113013	8	25	3	10
T9-C6.3-25	113014	9	25	3	10
T10-C6.3-25	113015	10	25	4	10
T15-C6.3-25	113016	15	25	4	10
T20-C6.3-25	113017	20	25	5	10
T25-C6.3-25	113018	25	25	5	10
T27-C6.3-25	113019	27	25	6	10
T30-C6.3-25	113020	30	25	6	10
T40-C6.3-25	113021	40	25	6.3	10
T45-C6.3-25	113022	45	25	8	10
T50-C6.3-25	113023	50	25	9	10
T9-C6.3-50	113030	9	50	3	10
T10-C6.3-50	113031	10	50	3	10
T15-C6.3-50	113032	15	50	4	10
T20-C6.3-50	113033	20	50	4.5	10
T25-C6.3-50	113034	25	50	6	10
T27-C6.3-50	113035	27	50	6	10
T30-C6.3-50	113036	30	50	6	10
T40-C6.3-50	113037	40	50	6.3	10



### Hexalobular Torx® – ZRN

Model	Item No.	TX #	L mm	Ø mm	Pk
T10-C6.3-25-ZRN	113050	10	25	4	10
T15-C6.3-25-ZRN	113051	15	25	4	10
T20-C6.3-25-ZRN	113052	20	25	5	10
T25-C6.3-25-ZRN	113053	25	25	5	10
T27-C6.3-25-ZRN	113054	27	25	6	10
T30-C6.3-25-ZRN	113055	30	25	6	10
T40-C6.3-25-ZRN	113056	40	25	6.3	10
T10-C6.3-50-ZRN	113060	10	50	3	10
T15-C6.3-50-ZRN	113061	15	50	4	10
T20-C6.3-50-ZRN	113062	20	50	4.5	10
T25-C6.3-50-ZRN	113063	25	50	6	10
T30-C6.3-50-ZRN	113064	30	50	6	10
T40-C6.3-50-ZRN	113065	40	50	6.3	10



### Hexalobular Torx® – IMP

Model	Item No.	TX #	L mm	Ø mm	Pk
T10-C6.3-25-IMP	113040	10	25	4	10
T15-C6.3-25-IMP	113041	15	25	4	10
T20-C6.3-25-IMP	113042	20	25	5	10
T25-C6.3-25-IMP	113043	25	25	5	10
T30-C6.3-25-IMP	113044	30	25	6	10
T40-C6.3-25-IMP	113045	40	25	6.3	10



### Hexalobular Torx® – CR

Model	Item No.	TX #	L mm	Ø mm	Pk
T5-C6.3-25-CR	113070	5	25	3	10
T6-C6.3-25-CR	113071	6	25	3	10
T7-C6.3-25-CR	113072	7	25	3	10
T8-C6.3-25-CR	113073	8	25	3	10
T9-C6.3-25-CR	113074	9	25	3	10
T10-C6.3-25-CR	113075	10	25	4	10
T15-C6.3-25-CR	113076	15	25	4	10
T20-C6.3-25-CR	113077	20	25	5	10
T25-C6.3-25-CR	113078	25	25	5	10
T27-C6.3-25-CR	113079	27	25	6	10
T30-C6.3-25-CR	113080	30	25	6	10
T40-C6.3-25-CR	113081	40	25	6.3	10
T50-C6.3-25-CR	113082	50	25	9	10



## Bits with 1/4" hexagonal drive DIN 3126 / ISO 1173 - C 6.3 \*



### Hexalobular Torx® Ball – tough

Model	Item No.	TK #	L mm	Ø mm	Pk
TK10-C6.3-25	113410	10	25	–	10
TK15-C6.3-25	113411	15	25	–	10
TK20-C6.3-25	113412	20	25	–	10
TK25-C6.3-25	113413	25	25	–	10
TK27-C6.3-25	113414	27	25	–	10
TK30-C6.3-25	113415	30	25	–	10
TK40-C6.3-25	113416	40	25	–	10



### Hexalobular Torx® Tamper-Resistant – tough

Model	Item No.	TR #	L mm	Ø mm	Pk
TR7-C6.3-25	114010	7	25	3	10
TR8-C6.3-25	114011	8	25	3	10
TR9-C6.3-25	114012	9	25	3	10
TR10-C6.3-25	114013	10	25	4	10
TR15-C6.3-25	114014	15	25	4	10
TR20-C6.3-25	114015	20	25	5	10
TR25-C6.3-25	114016	25	25	5	10
TR27-C6.3-25	114017	27	25	6	10
TR30-C6.3-25	114018	30	25	6	10
TR40-C6.3-25	114019	40	25	6.3	10
TR45-C6.3-35	114020	45	35	–	10



### Hexalobular Torx® Tamper-Resistant – CR

Model	Item No.	TR #	L mm	Ø mm	Pk
TR7-C6.3-25-CR	114070	7	25	3	10
TR8-C6.3-25-CR	114071	8	25	3	10
TR9-C6.3-25-CR	114072	9	25	3	10
TR10-C6.3-25-CR	114073	10	25	4	10
TR15-C6.3-25-CR	114074	15	25	4	10
TR20-C6.3-25-CR	114075	20</td			





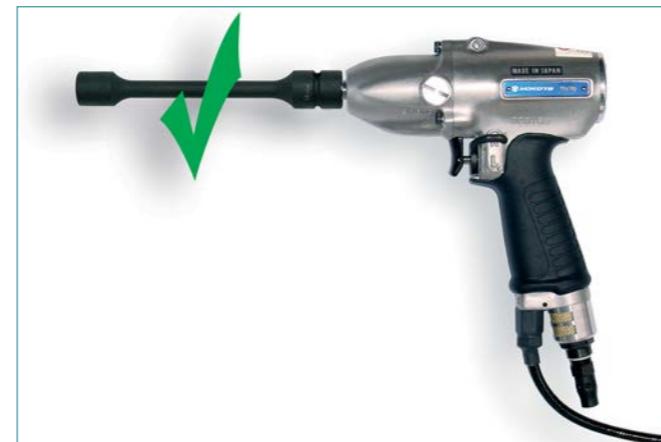








## Power Sockets w Sleeve Drive – for impulse wrenches



### Sleeve Drive Power Sockets

Optimum performance and safety when working with hand-held **impulse tools** can only be achieved with particularly suitable power sockets and extensions.

At the request of the renowned Japanese impulse tool manufacturer Yokota Industrial, the Action® power sockets with spindle guide were developed to further improve the quality of the bolted connection with impulse tools.

Action® power sockets with spindle guide offer **excellent power transmission** because they do not sit solely on the square drive of the impulse wrench shaft, but are also guided by the round part of the drive spindle. This means that these special power sockets have **minimal play** between the socket and the drive spindle of the nutrunner. Last but not least, the „sleeve drive“ avoids the transmission of vibrations to man and machine.

**Effect:** The recessed fit reduces „wobbling“, the tightening torques become even more precise, wear occurs much later, the noise level and vibration are reduced, and the health of the worker is protected.

An O-ring inserted in the drive end of the spindle-guided Action® power sockets optimises the tight fit on the impulse tool spindle and thus ensures the immediate transfer of the specified torque without any significant loss of force. The service life of the socket spanner is also increased.

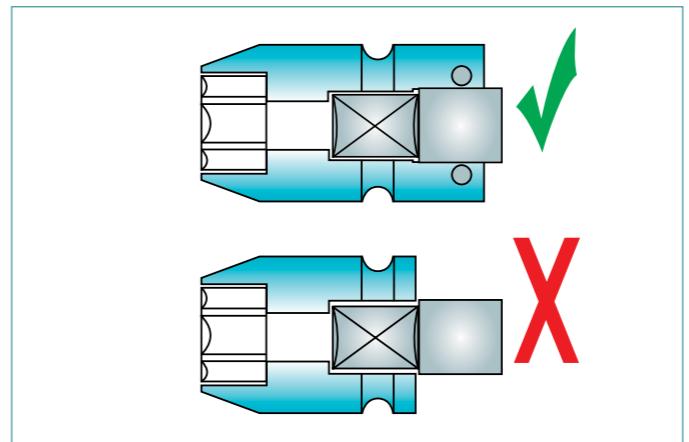


### User advice

Worn sockets cause a loss of power and also wear out the square drive of the tool. This also causes increasing vibrations, which makes working more and more difficult. Worn power sockets should therefore be replaced at an early stage.



## Power Sockets w Sleeve Drive – for impulse wrenches



Action® power sockets with spindle guide can be used on impulse tools with drive shafts of the lengths and diameters shown opposite.

All Action® power sockets are manufactured according to DIN 3121 and DIN 3129. Action® power sockets with spindle guide are compatible with all impulse wrenches from the Japanese suppliers Yokota and Uryu, as well as other makes with identical output geometry.

Square Drv inch	Ø mm	L mm
3/8	12	≥ 10
1/2	16	≥ 10
3/4	25	≥ 11.8

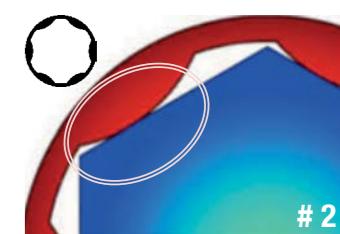
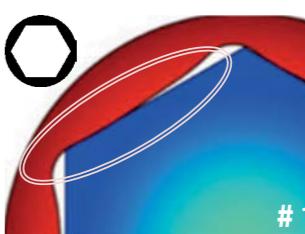


### Avoid „surface drive“ sockets

We strongly advise against using „surface drive“ sockets on impulse tools (regardless whether standard, shut-off, cordless and/or EC versions).

Instead, we recommend using only power sockets with a standard hexagon (6-point) and, if possible, also with a spindle guide („sleeve drive“).

- The play of the „Surface Drive“ hexagon (Fig. 2 right) on the screw head can affect the torque accuracy.
- About twice the number of pulses is needed to reach the target torque, as the force flow between the „surface drive“ and the screw head is considerably smaller than with a standard hexagon (Fig. 1).
- „Surface Drive“ causes higher vibrations.
- „Surface Drive“ causes higher noise levels.
- „Surface Drive“ causes faster wear of the sockets.



**Standard hexagon:**

Small radius in the corner so that the socket engages the flat side of the screw spindles. With continuously rotating drives, the additional play has no influence on the torque accuracy. With impulse wrenches, on the other hand, this additional play is very disadvantageous, as there is then a kickback with each impulse instead of continuous contact with the socket. Surface drive' sockets should therefore not be used for impulse tools.

**Hexagon with „Surface Drive“:**

Large radius in the corner to facilitate engagement with screw spindles. With continuously rotating drives, the additional play has no influence on the torque accuracy. With impulse wrenches, on the other hand, this additional play is very disadvantageous, as there is then a kickback with each impulse instead of continuous contact with the socket. Surface drive' sockets should therefore not be used for impulse tools.









# Assignment of Tool Drive and Machine

Drive Size	Drive Form	Standard	Connection	Manufacturers of corresponding machines, e.g.
1/4" Hexagon with notch		DIN 3126 ISO 1173 <b>Form C 6.3</b>	Universal bit holder or direct machine connection (s. r.)	Bosch, Fein, Holz-Her, Lecureux, Metabo
5/16" Hexagon with notch		DIN 3126 ISO 1173 <b>Form C 8</b>	Universal bit holder or direct machine connection (s. r.)	Bosch, Fein, Holz-Her, Lecureux, Metabo
1/4" Hexagon with groove		DIN 3126 ISO 1173 <b>Form E 6.3</b>	Kombi bit holder or direct machine connection (s. r.)	AEG, Atlas-Copco, Biax, Black & Decker, Bosch, Chicago Pneumatic, Cleco, Deprag, Desoutter, Fiam, Hitachi, Ingersoll-Rand, Makita, Metabo, Panasonic, Red Rooster, Rockwell, Skil, Stanley, Tohnichi, Uryu, Virax, Yokota
7/16" Hexagon with groove		DIN 3126 ISO 1173 <b>Form E 11.2</b>	Direct machine connection (s. r.)	AEG, Atlas-Copco, Biax, Black & Decker, Bosch, Chicago Pneumatic, Fein, Holz-Her, Ingersoll-Rand, Milwaukee, Rotor Tool, Star, Stanley, Virax
7 mm Flat-edge		DIN 3126 <b>Form G 7</b>	Direct machine connection (s. r.)	Baier, Fein
5.5 mm Hexagon with groove	-	DIN 3126 ISO 1173 <b>Form A 5.5</b>	Direct machine connection (s. r.)	AEG, Bosch, Holz-Her, Kress, Metabo
M4 - M6, 10-32 UNF pitch		-	Direct machine connection (s. r.)	Böllhoff/Uniquick, Holz-Her, DVSG, Duofast, USM, Weber
SDS-plus®		-	Direct machine connection (s. r.)	AEG, Atlas-Copco, Bosch, Hitachi, Kress, Metabo

# Test Torques for Tightening Tools

Slotted	Hex Driver (Allen)	Hexalobular (Torx®)	Hexalobular (Torx®) TR
N·m*	N·m*	N·m*	N·m*
0.3 × 2.0	0.20	TX 1	0.1
0.4 × 2.0	0.35	TX 2	0.14
0.4 × 2.5	0.45	TX 3	0.25
0.5 × 3.0	0.80	TX 4	0.37
0.5 × 3.5	0.98	TX 5	0.51
0.6 × 3.5	1.40	TX 6	0.91
0.6 × 4.0	1.61	TX 7	1.7
0.6 × 4.5	1.80	TX 8	2.6
0.8 × 4.0	2.90	TX 9	3.4
0.8 × 5.0	3.58	TX 10	4.5
0.8 × 5.5	3.90	TX 15	7.7
1.0 × 5.5	6.20	TX 20	12.7
1.0 × 6.5	7.28	TX 25	19.0
1.0 × 7.0	7.80	TX 27	26.9
1.2 × 6.5	10.50	TX 30	37.4
1.2 × 7.0	11.28	TX 40	65.1
1.2 × 8.0	12.90	TX 45	104
1.4 × 9.0	19.70	TX 50	159
1.5 × 13	32	TX 55	257
1.6 × 8.0	22.90	TX 60	445
1.6 × 9.0	25	TX 70	701
1.6 × 10	28.70		
2.0 × 12	53		
2.0 × 13	58		
2.5 × 14	98		
2.5 × 16	112		
3.0 × 18	181		

Crosshead PH / PZ	
N·m*	N·m*
0	1.0
1	3.9
2	10.3
3	32.0
4	88.7

**Slotted profile:** According to DIN 5264, ISO 2380 and SMS-SS 2223. The test torques were determined on a torque testing device with the corresponding test washers according to DIN 5263.

**Crosshead profile:** According to DIN 5260, ISO 8764 and SMS-SS 1687. The test torques were determined on a torque testing device with the corresponding test discs according to DIN 5261, ISO 8764.

**Hex driver profile:** According to DIN 911 and ISO 2936. The test torques were determined on a torque testing device with the corresponding test washers according to DIN 911.

**Hexalobular profile:** The test torques were determined with the corresponding test discs of the TX licensor (Camcar Textron) on a torque testing device according to DIN 5261.



For more info, visit our website.  
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\* The torque values stated apply only to mechanical tightening.

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## Conversion of Torque Values

from unit	multiplied by	to unit
<b>Ounce-force inch</b> (ozf-in), coll. also: Inch-Ounce (in-oz)	0.706156	cN·m
	0.072007	kgf·cm (kp·cm) *
	0.0625	lbf·in
	11.298483	cN·m
	1.1298483	dN·m
	0.11298483	N·m
	1.1521246	kgf·cm (kp·cm) *
	0.011521246	kgf·m (kp·m) *
	16	ozf-in
	0.083333333	lbf·ft
<b>Pound-force inch</b> (lbf-in), coll. also: Inch-Pound (in-lb)	1.35581795	N·m
	13.5581795	dN·m
	135.581795	cN·m
	0.13825495	kgf·m (kp·m) *
	13.825495	kgf·cm (kp·cm) *
	12	lbf·in
	192	ozf-in
	9.80665	N·m
	98.0665	dN·m
	980.665	cN·m
<b>Pound-force foot</b> (lbf-ft), coll. also: Foot-Pound (ft-lb)	7.2330139	lbf·ft
	86.796166	lbf·in
	0.0980665	N·m
	0.980665	dN·m
	9.80665	cN·m
	0.072330139	lbf·ft
	0.86796166	lbf·in
	0.10197162	kgf·m (kp·m) *
	10.197162	kgf·cm (kp·cm) *
	8.8507458	lbf·in
<b>Newton Metre</b> (N·m)	0.73756215	lbf·ft
	10	dN·m
	100	cN·m
	14.161184	ozf-in
	0.88507458	lbf·in
	0.1	N·m
	10	cN·m
	1.4161184	ozf-in
	0.088507458	lbf·in
	0.1	dN·m
<b>Centi Newton Metre</b> (cN·m)	0.01	N·m

\* The obsolete units of force kilogram or kilopond metre are only listed here for the purpose of convertibility. The valid SI-compliant unit is the Newton metre, although in Anglo-Saxon-speaking countries the units based on feet, inches or ounces are often preferred in practice.

## Guide Values for Tightening Torques according to DIN 13

Nominal size	A/F intern mm	A/F extern mm	Friction coefficient $\mu$	Tightening torque $M_A$ for fastener strength class according to DIN 267, ISO 898/1				
				3.6 N·m	5.6 N·m	6.9 N·m	8.8 N·m	10.9 N·m
<b>M 2</b>	–	4	0,10 0,14	–	–	0,26	0,32	0,47
<b>M 3</b>	–	5,5	0,10 0,14	0,30 0,37	0,51 0,62	0,81 0,99	1,1 1,3	1,5 1,9
<b>M 4</b>	3	7	0,10 0,14	0,70 0,85	1,2 1,4	1,9 2,3	2,4 2,9	3,3 4,1
<b>M 5</b>	4	8-9	0,10 0,14	1,4 1,7	2,3 2,8	3,6 4,5	4,9 6,0	7,0 8,5
<b>M 6</b>	5	10	0,10 0,14	2,4 2,9	3,9 4,8	6,3 7,7	8,0 10	12 14
<b>M 8</b>	6	13-14	0,10 0,14	5,7 7,0	9,5 12	15 19	20 25	28 35
<b>M 10</b>	8	15-17	0,10 0,14	11 14	19 23	30 37	40 49	56 69
<b>M 12</b>	10	19-21	0,10 0,14	20 24	33 40	52 65	69 86	98 120
<b>M 14</b>	12	22-23	0,10 0,14	31 39	52 64	83 105	110 135	155 190
<b>M 16</b>	14	24-26	0,10 0,14	48 59	79 98	125 155	170 210	240 295
<b>M 18</b>	14	27	0,10 0,14	66 81	110 135	175 215	235 290	330 405
<b>M 20</b>	17	30	0,10 0,14	92 115	155 190	245 305	330 410	465 580
<b>M 22</b>	17	34	0,10 0,14	125 165	205 260	330 415	445 550	620 780
<b>M 24</b>	19	36	0,10 0,14	160 200	265 330	425 530	570 710	800 1000
<b>M 27</b>	–	41	0,10 0,14	235 295	390 490	630 780	840 1050	1200 1500
<b>M 30</b>	–	46	0,10 0,14	320 395	530 660	850 1050	1150 1450	1600 2000
<b>M 33</b>	–	50	0,10 0,14	430 540	720 900	1150 1450	1550 1900	2150 2700
<b>M 36</b>	–	55	0,10 0,14	550 690	920 1150	1500 1850	1950 2450	2750 3450

# Product Groups

## ● Torque Application Tools

- Signaling
- Indicating
- Electronically monitored

## ● Impulse Tools

- Battery tools
- Pneumatic tools
- EC systems

## ● Torque Measurement

- Gauges
- Testers & Sensors
- Calibration equipment

## ● Pneumatic Pliers

- Cutting
- Squeezing
- Assembling

## ● Power Sockets

- w/o or with magnet
- w Sleeve Drive
- Adaptors

## ● Insert-Bits

- Bits & Holders
- Nutsetter
- Adaptors

## ● Handling Accs

- Air treatment
- Hoses & couplings
- Balancers

*This catalogue replaces all previous editions. Images and technical specifications are correct at the time of going to press. Errors/changes excepted.*

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