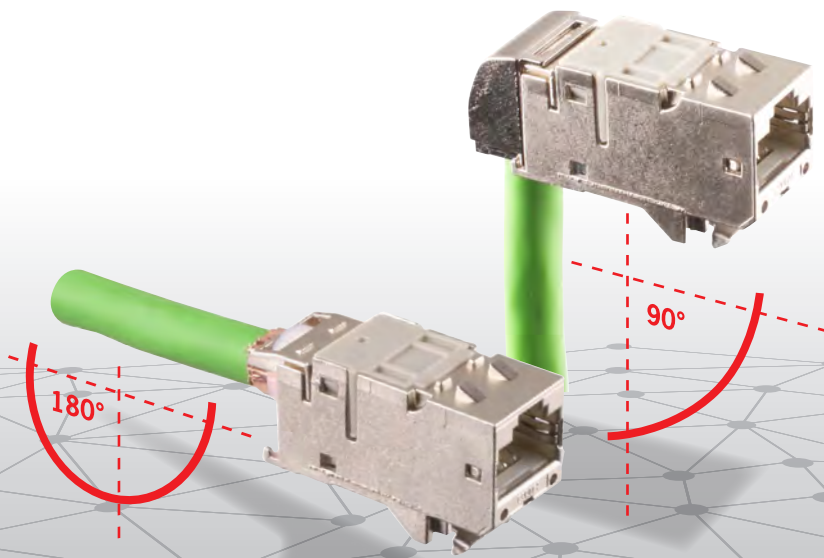# 2in1 – one jack
Two cable feed options

180°

90°

CobiNet **KS (Keystone)**

PRODUCING NETWORK PERFORMANCE

CobiDat KS
The Keystone with an optional 90° adapter for vertical cable outlet

Fully shielded
360° shielding for secure
data transmission

Lead sorter
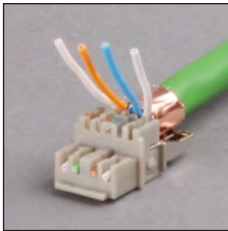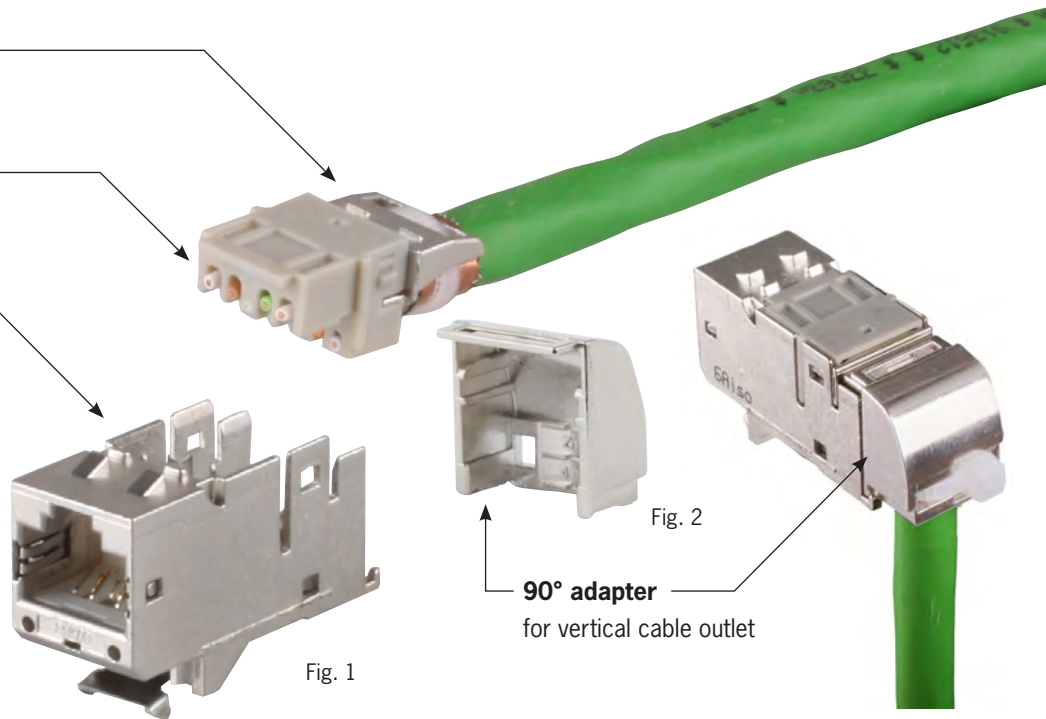optimised for 1500 MHz cables

Power over Ethernet PoE+
according to IEEE 802.3at

500 MHz
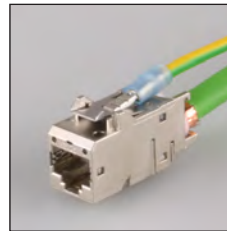Cat. 6_A according to ISO/
IEC 11801 AMD2

10 GB Ethernet according to
IEEE 802.3an

Fig. 1

Fig. 2

90° adapter
for vertical cable outlet

Cat. 6_A lead sorter

Colour coding according to T568A
and T568B

Quick connection for earthing

A flat connection is available for
quick and reliable contacting of
the earthing line.

Excellent transmission properties

The lead sorter is equipped with fully
metallic chamber shielding between
the lead pairs.

Wide range of usable lead cross-sections

AWG 26/1-22/1 for solid conductors
AWG 26/7-22/7 for flexible conductors

## Other advantages of the CobiDat KS jack

- **2 in 1:** More flexible application – one jack, two cable feed options
- Compact design in the Keystone format with a max. width of 14.5 mm over the entire part depth
- Low installation depth
- Insertion of RJ11 / RJ12 plugs possible thanks to stainless steel contact material
- Replaceable dust protection covers available in several colours
- GHMT-certified

- LSA insulation displacement terminals with 45° incline for negligible minimisation of the cable lead cross-sections and maximum contact reliability due to torsional and restoring forces
- Standardised design – outlets suitable for all common switch ranges, multi-design
- Fits into existing CobiDat KS peripherals
- Optimised for time-saving assembly
- Can be reconnected

CobiDat KS
The Keystone with an optional 90° adapter for vertical cable outlet

Insert without 90° adapter

Sample application: floor tank

Insert with 90° adapter
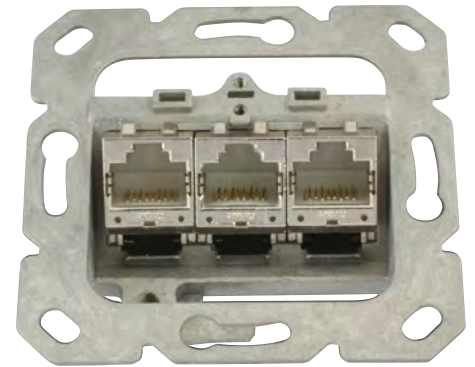
Sample application: outlet

Sample application: dado trunking, insert with 90° adapter

CobiDat KS jacks guarantee optimum cable routing while complying with the bending radii.

CobiDat KS RJ45 jack

Item	Standard	Item number	Fig.
CobiDat KS, ICS 500 RJ45 jack, PVP-certified, Cat. 6$_A$ according to ISO/IEC 60603-7-51, ISO/IEC 11801 AMD2; ISO;		6920 0052/P.1	1
CobiDat KS ICS 500 RJ45 jack Cat. 6$_A$ according to ISO/IEC 60603-7-51, ISO/IEC 11801 AMD2	ISO	6920 0052.1	1
CobiDat KS IPS 500 RJ45 jack Class E$_A$ PL according to ISO/IEC 11801 AMD2	ISO	6920 1052.1	1
CobiDat KS ICS 250 RJ45 jack Cat. 6 according to ISO/IEC 60603-7-5, ISO/IEC 11801	ISO	6920 0022.1	1
CobiDat KS IPS 250 RJ45 jack Class E PL according to ISO/IEC 11801	ISO	6920 1022.1	
90° adapter for vertical cable entry (1 kit = 20 pcs.)	ISO	6929 9000.1	2

CobiDat KS
The Keystone with an optional 90° adapter for vertical cable outlet
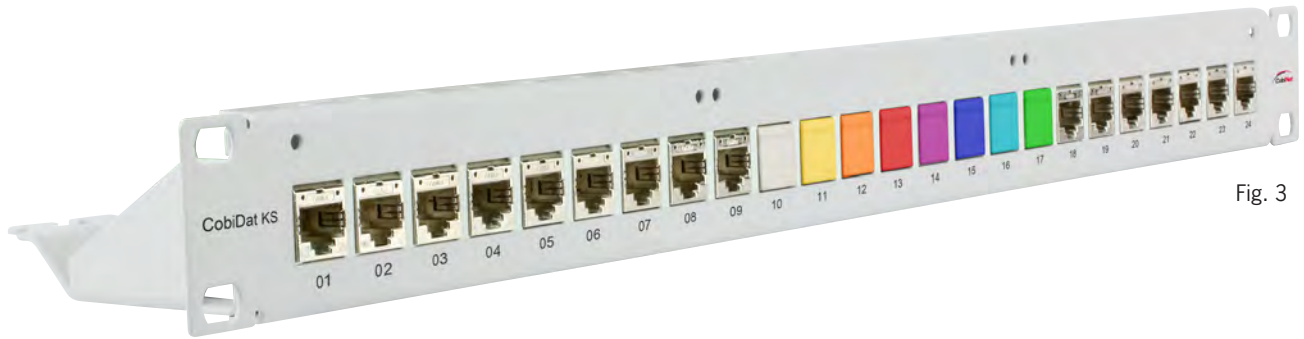

Fig. 3

CobiDat KS patch panel

- *Unequipped patch panel for holding modules of the CobiDat KS system*
- *19" (width: 483 mm)*
- *Incl. fastening parts kit, earthing cable and cable ties*

Item	Front panel colour	Item number	Fig.
24x, 1 RU empty housings (modules' RJ45 contacts at the top)	RAL 7035 (light grey)	6921 9110.1	3
24x, 1 RU empty housings (modules' RJ45 contacts at the top)	RAL 9005 (jet black)	6921 9118.1	
24x, 1 RU empty housings (modules' RJ45 contacts at the bottom)	RAL 7035 (light grey)	6921 9100.1	

CobiDat KS outlet

- *Unequipped data box for dado trunking and flush-mounted assembly for holding RJ45 jacks of the CobiDat KS system*
- *45° angled outlet*
- *50 x 50 mm central plate with integrated dust protection covers, 80 x 80 mm cover frame*
- *Suitable for many common switch ranges*
- *Label window with tag*
- *Option of connecting potential equalisation conductors using cable lug and M4 screw*
- *Colour: similar to RAL 9010 (pure white)*

Item	Item number	Fig.
1x CobiDat KS outlet	6922 1011	4
2x CobiDat KS outlet	6922 2011	5
3x CobiDat KS outlet	6922 3011	6

Supporting frame for underfloor systems

- *Empty support bracket for holding modules of the CobiDat KS system*
- *Used instead of the GB2/3 underfloor device insert from OBO Bettermann (Ackermann)*
- *Earthing bolts on the underside*
- *Colour: RAL 9005 (jet black)*

Item	Cut-out	Item number	Fig.
6x supporting frames	GB2	6923 2600	
9x supporting frames	GB3	6923 2900	7
Cable clamp for supporting frame, height: 60 mm		6923 2000	8

Fig. 4

Fig. 5

Fig. 6

Fig. 7

Fig. 8

Category 6A is NOT the same as Category 6$_A$

In the wake of the growing prevalence of 10 GB Ethernet according to IEEE 802.3an, after several years of standard-isation work there are adequate wiring standards in place which are designed for the 500 MHz bandwidth necessary for this. In this regard, it should be noted that the performance features of the US standard (EIA/TIA 568-C.2:2009-08) which are required by the network components are, in some cases, significantly different from the international (ISO/IEC 11801 AMD2:2010-04), European and German standards (DIN EN 50173-7:2011-09). When compared to the American requirements, the latter standards demand much higher power reserves and therefore offer greater planning and installation reliability.

For the individual components' near-end crosstalk (NEXT), at 500 MHz the requirement set down in the international/European standard is 3 dB higher than that stipulated in the American standard, for example. While these 3 dB only appear to be a marginal improvement at first glance, they stand for an almost 50% higher jack component performance.

With regard to classifying the transmission performance, the international, European and German standards follow the logic of describing system requirements (transmission channel/permanent link) according to classes, and component requirements according to categories, enabling a clearer distinction. In contrast, the American EIA/TIA standard describes both the channel link and the components as categories.

The standards also differ in terms of their notation: Cat. 6A (EIA/TIA), Cat. 6$_A$ and Class E$_A$ (ISO/IEC, DIN EN).

The transmission properties of a Cat. 6A channel link according to EIA/TIA are not comparable to the performance of a Class E$_A$ channel link according to ISO/IEC!

If you as a user would like to make sure that you are getting optimum Class E$_A$ wiring, you must use components which meet the Cat. 6$_A$ specification according to ISO/IEC or DIN EN.

Comparison of near-end crosstalk (NEXT) component performance (re-embedded) American/international standard

- Cat. 6A
  EIA/TIA 568 C.2
- Cat. 6$_A$
  ISO/IEC 11801
  AMD2
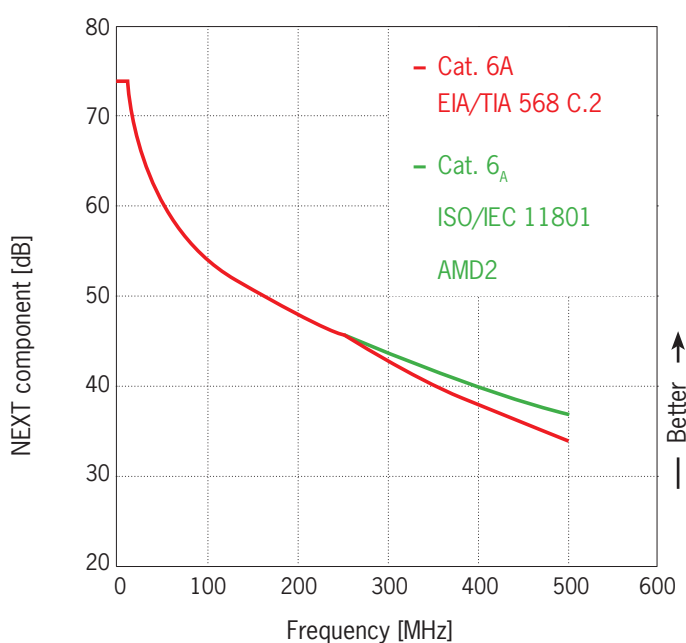
Normative limits

Frequency	NEXT Component performance (re-embedded)	
MHz	ISO/IEC 11801 AMD2:2010-04	EIA/TIA 568-C.2: 2009-08
	Cat. 6$_A$	Cat. 6A
1	74	74
100	54	54
250	46	46
500	37	34

NEXT component requirements

Suitability of **CobiDat** KS RJ45 jacks

Performance with regard to fulfilment of standards

Product \ Standard	EIA/TIA Cat. 6A Channel Link	EIA/TIA Cat. 6A Permanent Link	EIA/TIA Cat. 6A Component	ISO/IEC Class E_A Channel Link	ISO/IEC Class E_A Permanent Link	ISO/IEC Cat. 6_A Component
EIA/TIA Cat. 6A Component	✓	✓	✓	2-connector ch., marginal 4-connector ch., critical	2-connector, marginal 3-connector, no	✗
ISO/IEC Cat. 6_A Component	✓	✓	✓	2 and 4-connector channel ✓	2 and 3-connector link ✓	✓

Our CobiDat KS RJ45 jack, which is certified by GHMT, is used around the world because it meets the specifications of ISO/IEC Cat. 6_A and therefore complies with the far more stringent limit values compared to the EIA/TIA standard.

✓ = meet the standards' requirements

✗ = do not meet the standards' requirements

About CobiNet

CobiNet Fernmelde- und Datennetzkomponenten GmbH is a German owner-managed company headquartered in Heddesheim near Heidelberg. As an international system supplier, developer and manufacturer of telecommunication, data network and fibre optic components, the SME develops, produces and markets certified quality products, a large number of which are protected by patents. With branded products which are used millions of times over each day in an extremely wide range of fields within business, industry and SOHO, we create conditions that enable people all over the world to communicate securely and reliably with one another.

Quality

Outstanding quality standards and uncompromising quality assurance form the basis of our products, which are certified by independent testing institutes, and of numerous patents and utility models. The fact that CobiNet is certified according to DIN EN ISO 9001:2008 and that it is a long-term supplier of Deutsche Telekom AG are natural quality features, as is the use of our components in ultra-sensitive high-performance networks at airports, at train stations and in computer centres. Branded products made by CobiNet are characterised by their performance, reliability, time-saving and user-friendly assembly and sophisticated connection technologies.

Development

Every development is as good as the people who create it. As a university partner and training organisation, we are always at the cutting edge and, in our team of developers, we rely on creative and visionary minds as well as proven know-how and extensive experience. To develop our products, our engineers are provided with state-of-the-art, technical laboratory equipment which is always adapted to the latest developments. Even at the product development stage, we place a great deal of importance on environmental compatibility and conserving resources. This is reflected in our use of materials, in production and in the energy efficiency of our network components.

Production

Quality-conscious employees, the use of high-quality materials, perfect tools and machines, and compatibility with sustainability principles define our manufacturing processes in fully automatic, partly automatic and manual production. Quality checks during all of the production sequences as well as the demonstrability of our products' and systems' performance with test and measurement reports guarantee perfect production of our high-quality solutions. We even make components in extremely small batches upon customer request.