

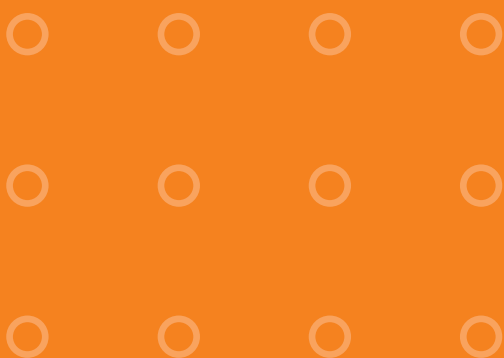
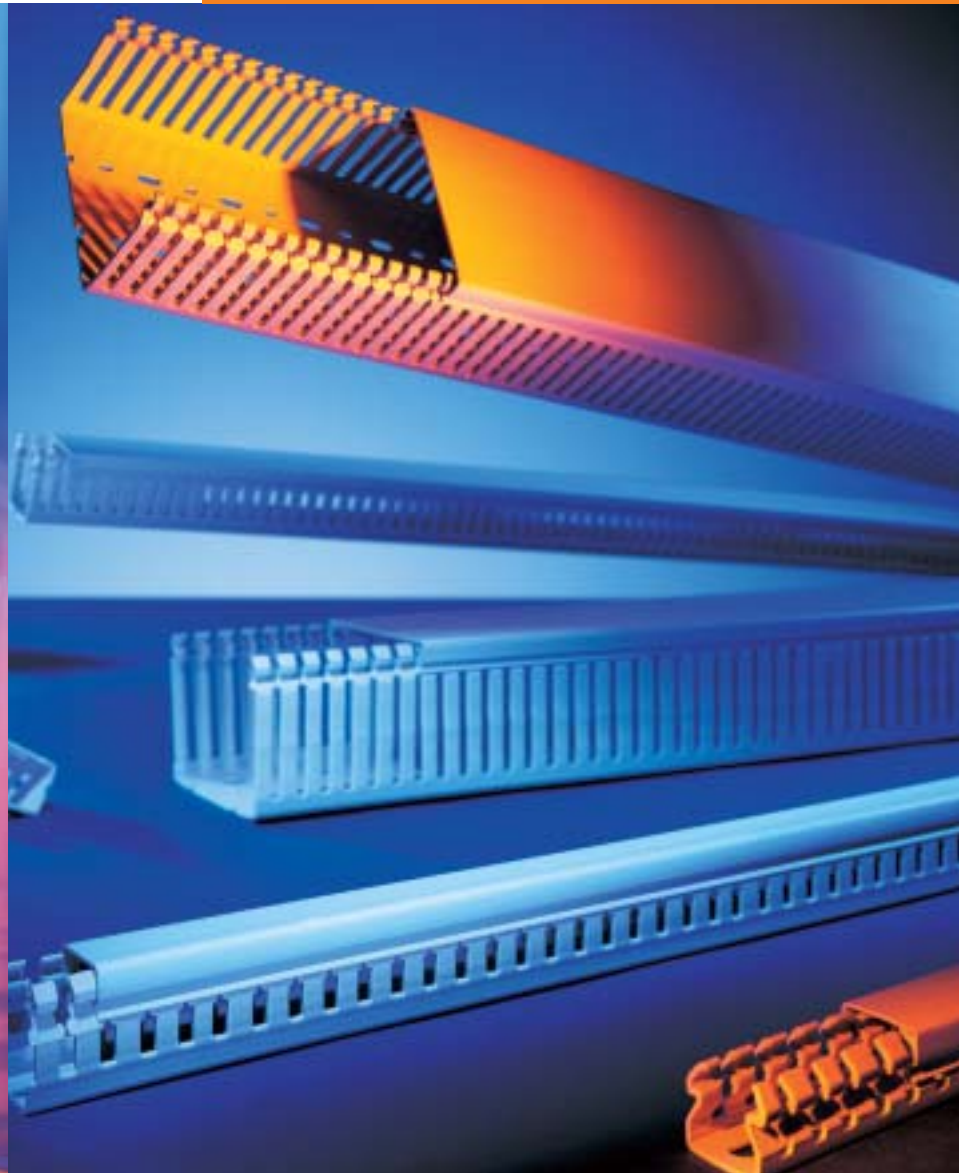
Wiring duct systems

Every product you need for a professional wiring installation



The "DAHL KANAL" (duct) - a brand of the OBO BETTERMANN Group

LFS Cable routing systems



DAHL KANAL – a strong brand for OBO BETTERMANN

OBO BETTERMANN is now offering the DAHL KANAL, a brand set apart by its extreme flexibility, innumerable attributes and an exceptionally broad product range.



Andreas Bettermann
Management Board
Sales & Marketing

The DAHL KANAL is a perfect complement to OBO BETTERMANN's existing range and is in keeping with our innovative product system solutions.



We are confident, given OBO BETTERMANN's strong market presence coupled with the effective Dahl Kanal brand name, that our range will continue to maintain its successful market position.



Frank Dahl
Head of Sales - Cable routing
systems



OBO BETTERMANN AND THE DAHL KANAL

OBO BETTERMANN will continue to promote the Dahl Kanal brand, supported by a market presence spanning over 40 years, as an independent product range. OBO BETTERMANN also believes in Dahl's distribution success. Frank Dahl, a committed and customer-oriented distributor, will join the OBO distribution team with market responsibility for the Dahl range.



Other Dahl and OBO line installation systems at a glance

The broad range of installation duct systems comprising ducts made from plastic, halogen-free materials and sheet steel, as well as baseboard and wiring ducts offers a solution for every installation application.

The skirting duct system range comprises ducts made from plastic (GEK), sheet steel (GES) and aluminium (GEA) and is set apart by its quick and simple installation.

The Rapid 45 skirting duct system is setting new benchmarks. This skirting duct system allows Modul 45 terminal devices to be simply clicked-in without the need for tools.

The OBO media column systems (GMS), enabling creative design cues in every office landscape, are an attractive alternative to skirting ducts.



Overview of wiring duct systems

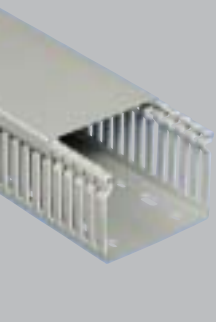
For professional wiring installations

The entire range of wiring ducts in all practical dimensions for optimum installation in switch cabinets. The diverse range includes wiring duct versions in the LK4 range from 15/15 mm to 80/120 mm and in the LKV range from 25/25 mm to 100/100 mm and in PVC and halogen-free materials.

Wiring duct LK4



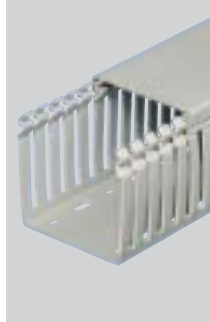
Type Dahl	Type OBO	Art. no. Dahl	Art. no. OBO
LK4 15/15	LK4 15015	140010015015	6178 00 1
LK4 30/15	LK4 30015	140010030015	6178 00 3
LK4 30/25	LK4 30025	140010030025	6178 00 5
LK4 40/25	LK4 40025	140010040025	6178 01 0
LK4 40/40	LK4 40040	140010040040	6178 01 2
LK4 40/60	LK4 40060	140010040060	6178 01 4
LK4 40/80	LK4 40080	140010040080	6178 01 6
LK4 40/100	LK4 40100	140010040100	6178 01 8
LK4 40/120	LK4 40120	140010040120	6178 02 0
LK4 60/15	LK4 60015	140010060015	6178 02 6
LK4 60/25	LK4 60025	140010060025	6178 02 8
LK4 60/40	LK4 60040	140010060040	6178 03 1
LK4 60/60	LK4 60060	140010060060	6178 03 3
LK4 60/80	LK4 60080	140010060080	6178 03 5
LK4 60/100	LK4 60100	140010060100	6178 03 7
LK4 60/120	LK4 60120	140010060120	6178 03 9
LK4 60/150	LK4 60150	140000060150	6178 04 1
LK4 60/200	LK4 60200	140000060200	6178 04 3
LK4 80/25	LK4 80025	140010080025	6178 05 0
LK4 80/40	LK4 80040	140010080040	6178 05 2
LK4 80/60	LK4 80060	140010080060	6178 05 4
LK4 80/80	LK4 80080	140010080080	6178 05 6
LK4 80/100	LK4 80100	140010080100	6178 05 9
LK4 80/120	LK4 80120	140010080120	6178 06 1



Wiring duct LKV DIN



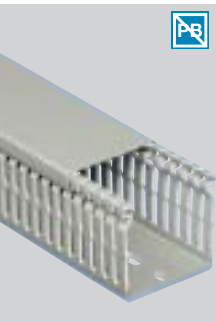
Type Dahl	Type OBO	Art. no. Dahl	Art. no. OBO
LKV 25/25	LKV 25025	150010025025	6178 30 2
LKV 37/25	LKV 37025	150010037025	6178 30 5
LKV 37/37	LKV 37037	150010037037	6178 30 7
LKV 50/25	LKV 50025	150010050025	6178 31 0
LKV 50/37	LKV 50037	150010050037	6178 31 2
LKV 50/50	LKV 50050	150010050050	6178 31 4
LKV 50/75	LKV 50075	150010050075	6178 31 6
LKV 75/25	LKV 75025	150010075025	6178 32 0
LKV 75/37	LKV 75037	150010075037	6178 32 2
LKV 75/50	LKV 75050	150010075050	6178 32 4
LKV 75/75	LKV 75075	150010075075	6178 32 6
LKV 75/100	LKV 75100	150010075100	6178 32 8
LKV 75/125	LKV 75125	150010075125	6178 33 0
LKV 100/37	LKV 100037	150010100037	6178 33 4
LKV 100/50	LKV 100050	150010100050	6178 33 6
LKV 100/75	LKV 100075	150010100075	6178 33 8
LKV 100/100	LKV 100100	150010100100	6178 34 1



Wiring duct LK4/N



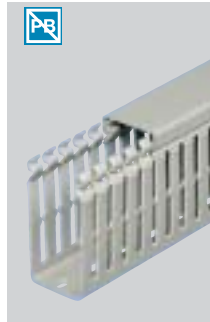
Type Dahl	Type OBO	Art. no. Dahl	Art. no. OBO
LK4/N 60/15	LK4/N 60015	160010060015	6178 20 1
LK4/N 60/25	LK4/N 60025	160010060025	6178 20 3
LK4/N 60/40	LK4/N 60040	160010060040	6178 20 5
LK4/N 60/60	LK4/N 60060	160010060060	6178 20 7
LK4/N 60/80	LK4/N 60080	160010060080	6178 20 9
LK4/N 60/100	LK4/N 60100	160010060100	6178 21 1
LK4/N 60/120	LK4/N 60120	160010060120	6178 21 3
LK4/N 60/150	LK4/N 60150	160000060150	6178 21 5
LK4/N 60/200	LK4/N 60200	160000060200	6178 21 8
LK4/N 80/25	LK4/N 80025	160010080025	6178 22 5
LK4/N 80/40	LK4/N 80040	160010080040	6178 22 7
LK4/N 80/60	LK4/N 80060	160010080060	6178 22 9
LK4/N 80/80	LK4/N 80080	160010080080	6178 23 1
LK4/N 80/100	LK4/N 80100	160010080100	6178 23 3
LK4/N 80/120	LK4/N 80120	160010080120	6178 23 6



Wiring duct LKV/N DIN



Type Dahl	Type OBO	Art. no. Dahl	Art. no. OBO
LKV/N 75/25	LKV/N 75025	170010075025	6178 42 0
LKV/N 75/37	LKV/N 75037	170010075037	6178 42 2
LKV/N 75/50	LKV/N 75050	170010075050	6178 42 4
LKV/N 75/75	LKV/N 75075	170010075075	6178 42 6
LKV/N 75/100	LKV/N 75100	170010075100	6178 42 8
LKV/N 75/125	LKV/N 75125	170010075125	6178 43 0
LKV/N 100/37	LKV/N 100037	170010100037	6178 43 5
LKV/N 100/50	LKV/N 100050	170010100050	6178 43 7
LKV/N 100/75	LKV/N 100075	170010100075	6178 43 9
LKV/N 100/100	LKV/N 100100	170010100100	6178 44 1



Wiring duct LKV/H DIN



Type Dahl	Type OBO	Art. no. Dahl	Art. no. OBO
LKV/H 25/25	VK-H 25025	150042025025	6178 60 1
LKV/H 37/25	VK-H 37025	150042037025	6178 60 3
LKV/H 37/37	VK-H 37037	150042037037	6178 60 5
LKV/H 50/25	VK-H 50025	150042050025	6178 61 0
LKV/H 50/37	VK-H 50037	150042050037	6178 61 2
LKV/H 50/50	VK-H 50050	150042050050	6178 61 4
LKV/H 50/75	VK-H 50075	150042050075	6178 61 6
LKV/H 75/25	VK-H 75025	150042075025	6178 62 0
LKV/H 75/37	VK-H 75037	150042075037	6178 62 2
LKV/H 75/50	VK-H 75050	150042075050	6178 62 4
LKV/H 75/75	VK-H 75075	150042075075	6178 62 6
LKV/H 75/100	VK-H 75100	150042075100	6178 62 8
LKV/H 75/125	VK-H 75125	150042075125	6178 63 0
LKV/H 100/37	VK-H 100037	150042100037	6178 63 4
LKV/H 100/50	VK-H 100050	150042100050	6178 63 6
LKV/H 100/75	VK-H 100075	150042100075	6178 63 8
LKV/H 100/100	VK-H 100100	150042100100	6178 64 0



Open to all sides

PVC and halogen-free wiring ducts. A broad range of ducts with dimensions of 15 x 15 mm to 60 x 200 mm is available for professional wiring installation. Go for top production quality, optimum processing and an extensive accessory range. For safe, optimum work.



▶ Predetermined breaking points allow easy break-out of the retainers.



▶ The release pliers ensure that the retainers are removed from the duct floor cleanly and precisely.



▶ Additional predetermined breaking points in the floor allow easy break-out after release if the duct is already mounted.



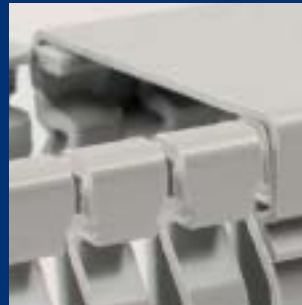
▶ This avoids loss of volume.



▶ DAHL's superb quality ensures absolutely soft, burr-free slots.



▶ Rounded studs prevent the risk of injury.



▶ True to size processing allows easy mounting and removal of the cover, despite a tight fit.



▶ The tapering (lobes) of the slot prevent the installed wires from falling out.





► The predetermined breaking points enable the wire retainers to be individually adapted to the duct width. This minimises stock.



► Wire retainers (for LK4, LKV, LKV/H only) make for easier installation and save space.



► Single and dual-track floor holes to DIN 43659 enable precise work.



► Despite the lateral punchings for feeding through the wires, the wiring ducts are extremely stable - you will notice this with each and every application. Even for unusual projects, there are a host of variants to choose from.

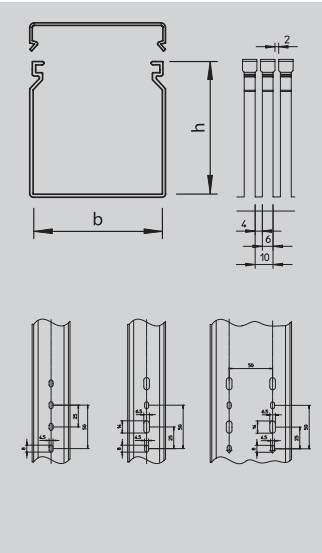
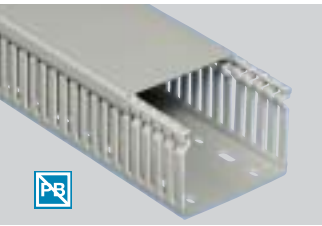


► The practical design details must be emphasised to ensure high material quality and robustness of the wiring ducts. Thanks to practical predetermined breaking points, the system can be adapted as required for several lines or transitions from one duct to another with little intervention.



Wiring duct LK4

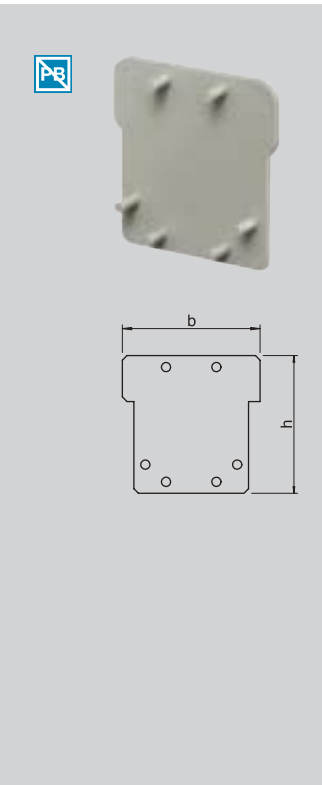
PVC, grey, similar to RAL 7030, stock length 2,000 mm, with floor holes



Type Dahl	Type OBO	Art. no. Dahl	Art. no. OBO	Internal dimensions (h x w) mm	Pack m	Price €/m
LK4 15/15	LK4 15015	140010015015	6178 00 1	15x15	44	
LK4 30/15	LK4 30015	140010030015	6178 00 3	30x15	60	
LK4 30/25	LK4 30025	140010030025	6178 00 5	30x25	48	
LK4 40/25	LK4 40025	140010040025	6178 01 0	40x25	36	
LK4 40/40	LK4 40040	140010040040	6178 01 2	40x40	24	
LK4 40/60	LK4 40060	140010040060	6178 01 4	40x60	16	
LK4 40/80	LK4 40080	140010040080	6178 01 6	40x80	28	
LK4 40/100	LK4 40100	140010040100	6178 01 8	40x100	20	
LK4 40/120	LK4 40120	140010040120	6178 02 0	40x120	16	
LK4 60/15	LK4 60015	140010060015	6178 02 6	60x15	40	
LK4 60/25	LK4 60025	140010060025	6178 02 8	60x25	28	
LK4 60/40	LK4 60040	140010060040	6178 03 1	60x40	16	
LK4 60/60	LK4 60060	140010060060	6178 03 3	60x60	24	
LK4 60/80	LK4 60080	140010060080	6178 03 5	60x80	20	
LK4 60/100	LK4 60100	140010060100	6178 03 7	60x100	16	
LK4 60/120	LK4 60120	140010060120	6178 03 9	60x120	12	
LK4 60/150	LK4 60150	140000060150	6178 04 1	60x150	10	
LK4 60/200	LK4 60200	140000060200	6178 04 3	60x200	10	
LK4 80/25	LK4 80025	140010080025	6178 05 0	80x25	24	
LK4 80/40	LK4 80040	140010080040	6178 05 2	80x40	28	
LK4 80/60	LK4 80060	140010080060	6178 05 4	80x60	24	
LK4 80/80	LK4 80080	140010080080	6178 05 6	80x80	16	
LK4 80/100	LK4 80100	140010080100	6178 05 9	80x100	12	
LK4 80/120	LK4 80120	140010080120	6178 06 1	80x120	10	

End piece for wiring duct LK4

PVC, grey, similar to RAL 7030

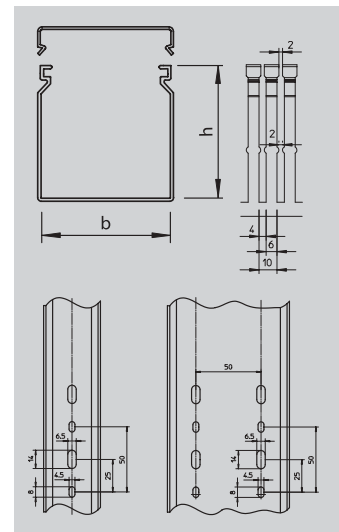
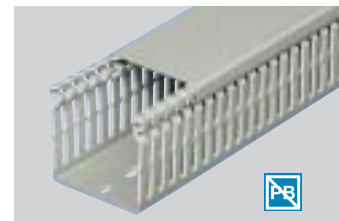


Type Dahl	Type OBO	Art. no. Dahl	Art. no. OBO	Dimensions (h x w) mm	Pack pc.	Price €/pc.
LK4/E 15/15	LK4/E 15015	148500015015	6178 10 2	15x15	10	
LK4/E 30/15	LK4/E 30015	148500030015	6178 10 4	30x15	10	
LK4/E 30/25	LK4/E 30025	148500030025	6178 10 6	30x25	10	
LK4/E 40/25	LK4/E 40025	148500040025	6178 11 1	40x25	10	
LK4/E 40/40	LK4/E 40040	148500040040	6178 11 3	40x40	10	
LK4/E 40/60	LK4/E 40060	148500040060	6178 11 5	40x60	10	
LK4/E 40/80	LK4/E 40080	148500040080	6178 11 7	40x80	10	
LK4/E 40/100	LK4/E 40100	148500040100	6178 11 9	40x100	10	
LK4/E 40/120	LK4/E 40120	148500040120	6178 12 1	40x120	10	
LK4/E 60/15	LK4/E 60015	148500060015	6178 12 7	60x15	10	
LK4/E 60/25	LK4/E 60025	148500060025	6178 12 9	60x25	10	
LK4/E 60/40	LK4/E 60040	148500060040	6178 13 2	60x40	10	
LK4/E 60/60	LK4/E 60060	148500060060	6178 13 4	60x60	10	
LK4/E 60/80	LK4/E 60080	148500060080	6178 13 6	60x80	10	
LK4/E 60/100	LK4/E 60100	148500060100	6178 13 9	60x100	10	
LK4/E 60/120	LK4/E 60120	148500060120	6178 14 1	60x120	10	
LK4/E 60/150	LK4/E 60150	148500060150	6178 14 3	60x150	10	
LK4/E 60/200	LK4/E 60200	148500060200	6178 14 5	60x200	10	
LK4/E 80/25	LK4/E 80025	148500080025	6178 15 2	80x25	10	
LK4/E 80/40	LK4/E 80040	148500080040	6178 15 5	80x40	10	
LK4/E 80/60	LK4/E 80060	148500080060	6178 15 7	80x60	10	
LK4/E 80/80	LK4/E 80080	148500080080	6178 15 9	80x80	10	
LK4/E 80/100	LK4/E 80100	148500080100	6178 16 1	80x100	10	
LK4/E 80/120	LK4/E 80120	148500080120	6178 16 4	80x120	10	

Wiring duct LK4/N

PVC, grey, similar to RAL 7030, stock length 2,000 mm, with floor holes

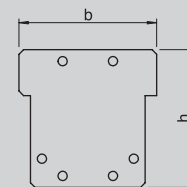
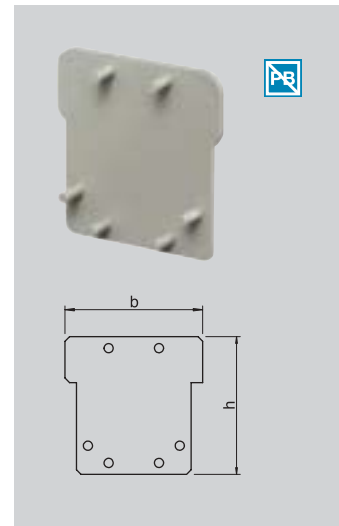
Type Dahl	Type OBO	Art. no. Dahl	Art. no. OBO	Internal dimensions (h x w) mm	Pack m	Price €/m
LK4/N 60/15	LK4/N 60015	160010060015	6178 20 1	60x15	40	
LK4/N 60/25	LK4/N 60025	160010060025	6178 20 3	60x25	28	
LK4/N 60/40	LK4/N 60040	160010060040	6178 20 5	60x40	16	
LK4/N 60/60	LK4/N 60060	160010060060	6178 20 7	60x60	24	
LK4/N 60/80	LK4/N 60080	160010060080	6178 20 9	60x80	20	
LK4/N 60/100	LK4/N 60100	160010060100	6178 21 1	60x100	16	
LK4/N 60/120	LK4/N 60120	160010060120	6178 21 3	60x120	12	
LK4/N 60/150	LK4/N 60150	160010060150	6178 21 5	60x150	10	
LK4/N 60/200	LK4/N 60200	160010060200	6178 21 8	60x200	10	
LK4/N 80/25	LK4/N 80025	160010080025	6178 22 5	80x25	24	
LK4/N 80/40	LK4/N 80040	160010080040	6178 22 7	80x40	28	
LK4/N 80/60	LK4/N 80060	160010080060	6178 22 9	80x60	24	
LK4/N 80/80	LK4/N 80080	160010080080	6178 23 1	80x80	16	
LK4/N 80/100	LK4/N 80100	160010080100	6178 23 3	80x100	12	
LK4/N 80/120	LK4/N 80120	160010080120	6178 23 6	80x120	10	



End piece for wiring duct LK4/N

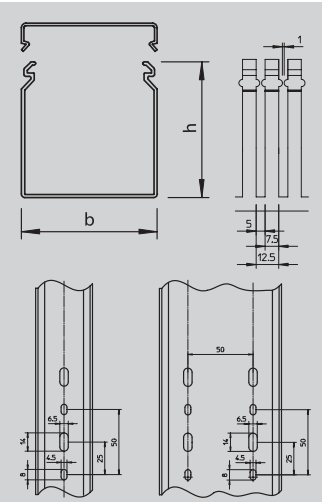
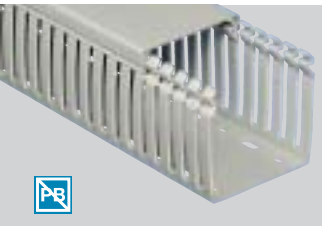
PVC, grey, similar to RAL 7030

Type Dahl	Type OBO	Art. no. Dahl	Art. no. OBO	Dimensions (h x w) mm	Pack pc.	Price €/pc.
LK4/E 60/15	LK4/E 60015	148500060015	6178 12 7	60x15	10	
LK4/E 60/25	LK4/E 60025	148500060025	6178 12 9	60x25	10	
LK4/E 60/40	LK4/E 60040	148500060040	6178 13 2	60x40	10	
LK4/E 60/60	LK4/E 60060	148500060060	6178 13 4	60x60	10	
LK4/E 60/80	LK4/E 60080	148500060080	6178 13 6	60x80	10	
LK4/E 60/100	LK4/E 60100	148500060100	6178 13 9	60x100	10	
LK4/E 60/120	LK4/E 60120	148500060120	6178 14 1	60x120	10	
LK4/E 60/150	LK4/E 60150	148500060150	6178 14 3	60x150	10	
LK4/E 60/200	LK4/E 60200	148500060200	6178 14 5	60x200	10	
LK4/E 80/25	LK4/E 80025	148500080025	6178 15 2	80x25	10	
LK4/E 80/40	LK4/E 80040	148500080040	6178 15 5	80x40	10	
LK4/E 80/60	LK4/E 80060	148500080060	6178 15 7	80x60	10	
LK4/E 80/80	LK4/E 80080	148500080080	6178 15 9	80x80	10	
LK4/E 80/100	LK4/E 80100	148500080100	6178 16 1	80x100	10	
LK4/E 80/120	LK4/E 80120	148500080120	6178 16 4	80x120	10	



Wiring duct LKV DIN

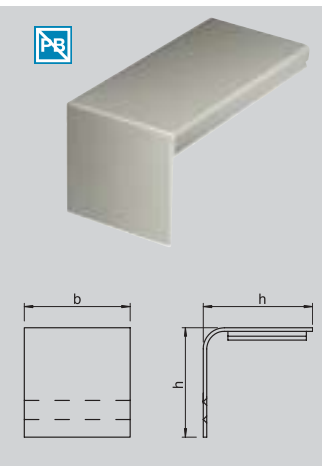
PVC, grey, similar to RAL 7030, stock length 2,000 mm, with floor holes



Type Dahl	Type OBO	Art. no. Dahl	Art. no. OBO	External dimensions (h x w) mm	Pack m	Price €/m
LKV 25/25	LKV 25025	150010025025	6178 30 2	25x25	44	
LKV 37/25	LKV 37025	150010037025	6178 30 5	37.5x25	48	
LKV 37/37	LKV 37037	150010037037	6178 30 7	37.5x37.5	60	
LKV 50/25	LKV 50025	150010050025	6178 31 0	50x25	60	
LKV 50/37	LKV 50037	150010050037	6178 31 2	50x37.5	48	
LKV 50/50	LKV 50050	150010050050	6178 31 4	50x50	36	
LKV 50/75	LKV 50075	150010050075	6178 31 6	50x75	28	
LKV 75/25	LKV 75025	150010075025	6178 32 0	75x25	48	
LKV 75/37	LKV 75037	150010075037	6178 32 2	75x37.5	32	
LKV 75/50	LKV 75050	150010075050	6178 32 4	75x50	32	
LKV 75/75	LKV 75075	150010075075	6178 32 6	75x75	24	
LKV 75/100	LKV 75100	150010075100	6178 32 8	75x100	16	
LKV 75/125	LKV 75125	150010075125	6178 33 0	75x125	10	
LKV 100/37	LKV 100037	150010100037	6178 33 4	100x37.5	32	
LKV 100/50	LKV 100050	150010100050	6178 33 6	100x50	24	
LKV 100/75	LKV 100075	150010100075	6178 33 8	100x75	16	
LKV 100/100	LKV 100100	150010100100	6178 34 1	100x100	16	

End piece for wiring duct LKV

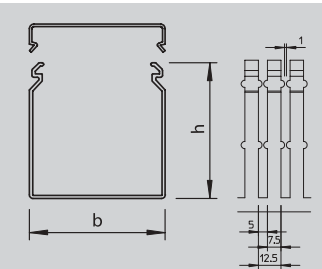
PVC, grey, similar to RAL 7030



Type Dahl	Type OBO	Art. no. Dahl	Art. no. OBO	Dimensions (h x w) mm	Pack pc.	Price €/pc.
LKV/E 25/25	LKV/E 25025	138500025025	6178 36 1	25x25	10	
LKV/E 37/25	LKV/E 37025	138500037025	6178 36 4	37.5x25	10	
LKV/E 37/37	LKV/E 37037	138500037037	6178 36 6	37.5x37.5	10	
LKV/E 50/25	LKV/E 50025	138500050025	6178 37 0	50x25	10	
LKV/E 50/37	LKV/E 50037	138500050037	6178 37 2	50x37.5	10	
LKV/E 50/50	LKV/E 50050	138500050050	6178 37 4	50x50	10	
LKV/E 50/75	LKV/E 50075	138500050075	6178 37 6	50x75	10	
LKV/E 75/25	LKV/E 75025	138500075025	6178 37 8	75x25	10	
LKV/E 75/37	LKV/E 75037	138500075037	6178 38 0	75x37.5	10	
LKV/E 75/50	LKV/E 75050	138500075050	6178 38 2	75x50	10	
LKV/E 75/75	LKV/E 75075	138500075075	6178 38 4	75x75	10	
LKV/E 75/100	LKV/E 75100	138500075100	6178 38 6	75x100	10	
LKV/E 75/125	LKV/E 75125	138500075125	6178 38 8	75x125	10	

Wiring duct LKV/N DIN

PVC, grey, similar to RAL 7030, stock length 2,000 mm, with floor holes

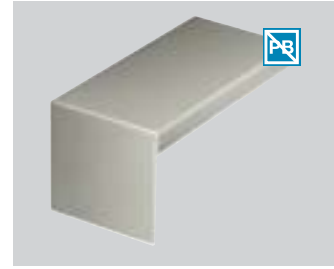


Type Dahl	Type OBO	Art. no. Dahl	Art. no. OBO	External dimensions (h x w) mm	Pack m	Price €/m
LKV/N 75/25	LKV/N 75025	170010075025	6178 42 0	75x25	48	
LKV/N 75/37	LKV/N 75037	170010075037	6178 42 2	75x37.5	32	
LKV/N 75/50	LKV/N 75050	170010075050	6178 42 4	75x50	32	
LKV/N 75/75	LKV/N 75075	170010075075	6178 42 6	75x75	24	
LKV/N 75/100	LKV/N 75100	170010075100	6178 42 8	75x100	16	
LKV/N 75/125	LKV/N 75125	170010075125	6178 43 0	75x125	10	
LKV/N 100/37	LKV/N 100037	170010100037	6178 43 5	100x37.5	32	
LKV/N 100/50	LKV/N 100050	170010100050	6178 43 7	100x50	24	
LKV/N 100/75	LKV/N 100075	170010100075	6178 43 9	100x75	16	
LKV/N 100/100	LKV/N 100100	170010100100	6178 44 1	100x100	16	

End piece for wiring duct LKV/N

PVC, grey, similar to RAL 7030

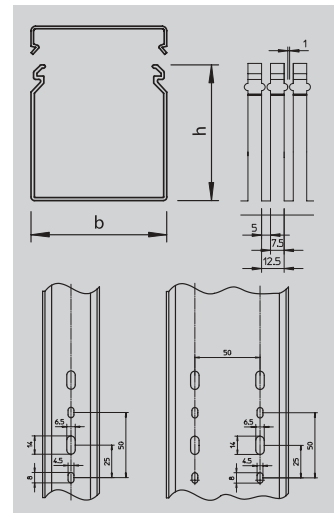
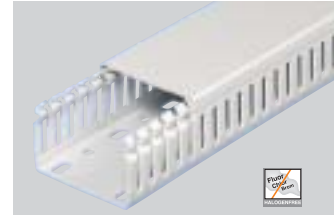
Type Dahl	Type OBO	Art. no. Dahl	Art. no. OBO	Dimensions (h x w) mm	Pack pc.	Price €/pc.
LKV/E 75/25	LKV/E 75025	138500075025	6178 37 8	75x25	10	
LKV/E 75/37	LKV/E 75037	138500075037	6178 38 0	75x37.5	10	
LKV/E 75/50	LKV/E 75050	138500075050	6178 38 2	75x50	10	
LKV/E 75/75	LKV/E 75075	138500075075	6178 38 4	75x75	10	
LKV/E 75/100	LKV/E 75100	138500075100	6178 38 6	75x100	10	
LKV/E 75/125	LKV/E 75125	138500075125	6178 38 8	75x125	10	



VK Wiring duct LKV/H DIN

Halogen-free, light grey, similar to RAL 7035, stock length 2,000 mm, with floor holes

Type Dahl	Type OBO	Art. no. Dahl	Art. no. OBO	Dimensions (h x w) mm	Pack m	Price €/m
LKV/H 25/25	VK-H 25025	150042025025	6178 60 1	25x25	44	
LKV/H 37/25	VK-H 37025	150042037025	6178 60 3	37.5x25	48	
LKV/H 37/37	VK-H 37037	150042037037	6178 60 5	37.5x37.5	60	
LKV/H 50/25	VK-H 50025	150042050025	6178 61 0	50x25	60	
LKV/H 50/37	VK-H 50037	150042050037	6178 61 2	50x37.5	48	
LKV/H 50/50	VK-H 50050	150042050050	6178 61 4	50x50	36	
LKV/H 50/75	VK-H 50075	150042050075	6178 61 6	50x75	28	
LKV/H 75/25	VK-H 75025	150042075025	6178 62 0	75x25	48	
LKV/H 75/37	VK-H 75037	150042075037	6178 62 2	75x37.5	32	
LKV/H 75/50	VK-H 75050	150042075050	6178 62 4	75x50	32	
LKV/H 75/75	VK-H 75075	150042075075	6178 62 6	75x75	24	
LKV/H 75/100	VK-H 75100	150042075100	6178 62 8	75x100	16	
LKV/H 75/125	VK-H 75125	150042075125	6178 63 0	75x125	10	
LKV/H 100/37	VK-H 100037	150042100037	6178 63 4	100x37.5	32	
LKV/H 100/50	VK-H 100050	150042100050	6178 63 6	100x50	24	
LKV/H 100/75	VK-H 100075	150042100075	6178 63 8	100x75	16	
LKV/H 100/100	VK-H 100100	150042100100	6178 64 0	100x100	16	



Wiring duct accessories

Designation	Type Dahl	Type OBO	Art. no. Dahl	Art. no. OBO	Dimensions mm	Pack pc.	Material	Price €/pc.
Plastic rivet tool	KNW 1	KNW 1	813401	6178 52 7	Ø 4.5	1	PA	
Plastic rivet tool	KNW 2	KNW 2	813402	6178 52 9	Ø 6	1	PA	
Release pliers	AKZ	AKZ	809200	6178 53 5	-	1	ST	

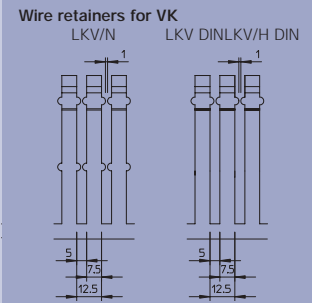
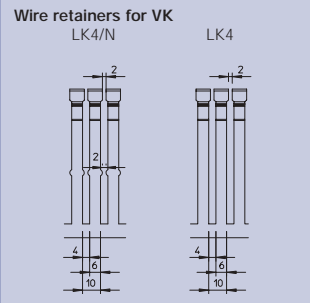
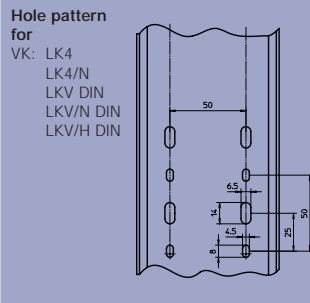
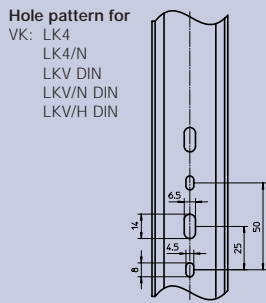
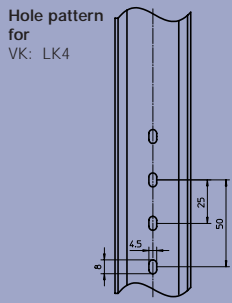
Designation	Type Dahl	Type OBO	Art. no. Dahl	Art. no. OBO	Dimensions mm	Pack pc.	Material	Price €/pc.
Plastic rivet	KSN 1	KSN 1	811401	6178 52 0	Ø 4.5	100	PA	
Plastic rivet	KSN 2	KSN 2	811402	6178 52 2	Ø 6	100	PA	
Washer 3 mm thick	ULS	ULS	812800	6178 54 8	S 3	100	PVC	
Retaining clamp LK4	LK4/H	LK4/H	811103	6178 09 2	-	100	PVC	
Retaining clamp LKV	LKV/H	LKV/H	811105	6178 34 9	-	100	PVC	
Retaining clamp LKV/H	LKVH/H	LKVH/H	821105	6178 65 0	-	100	halogen-free	
Size 1 spacer Height 12 mm	AH 1	AH 1	812901	6178 54 0	h 12	100	PVC	
Size 2 spacer Height 20 mm	AH 2	AH 2	812902	6178 54 2	h 20	100	PVC	

Accessories mounting rail

Designation	Type OBO	Art. no. OBO	Dimensions mm	Packed/bundle m	Material	Price €/m
Hat-rail	2069 GC	1115 65 0	2000	50	GC	
Hat-rail, perforated	2069 GCL	1115 66 9	2000	50	GC	
G-rail	2064 GC	1115 05 7	2000	20	GC	
G-rail, perforated	2064 GCL	1115 06 5	2000	20	GC	

halogen-free lead-free GC Electro-galvanised and yellow-chromated steel

The production process may cause slight deviations from the RAL colours. Always quote the OBO article number when ordering



Technical Appendix Material features

► LK4, LKV

Testing/Approvals
German Wiring Ducts
LKV to DIN 43659

Canada CSA APPr. LR 25478-2
LK4, LK4/Special, LKV

Czech Republic
CS-EZU 04-1116/92
LK4, LKV

Hungary MEEI Ref. No. 222-05912
LK4, LKV

Technical data for cable ducts made from hard PVC

► General

Material: Hard polyvinylchloride, barely flammable, self-extinguishing, dimensionally stable to 60 °C

► Electrical data

1. Specific forward resistance $3 \times 10^{15} \Omega \times 2126; x \text{ cm}$ to DIN IEC 60093 at 23 °C
2. Surface resistance $3 \times 10^{13} \Omega \times 2126; x \text{ cm}$ to DIN IEC 60093 Electrode arrangement A under standard climate 23/50 DIN 50014
3. Dielectric coefficient at 1 MHz 3.2 to DIN 53483 at 23 °C
4. Dielectric loss factor 23×10^{-3} at 1 MHz to DIN 53483 at 83 °C
5. Breakdown voltage 133 KV/cm to DIN EN 60243 P 1 Electrode arrangement of ball plate under Ö 1

► Physical data

1. Yield stress 460 kp/cm²
2. Expansion with yield stress 5.4% Tensile test to DIN 53455 at 23 °C
3. Tensile elasticity module 34,000 kp/cm²
4. Density 1.47 g/cm³ to DIN 53479 at 23 °C
5. Impact value to DIN 53453 at 23 °C 5.9 kp/cm², at 0 °C 4.0 kp/cm²
6. Thermal linear expansion coefficient $39/54 \times 10^{-6} \text{ m (m x k)}$ to VDE 0304 Part 1 § 4
7. Thermal conduction to DIN 52612 P. 10,172 (kcal/m x h x k)
8. Thermal stability to VDE 0470 § 4 1 h at 60 °C 2 kp Ø impact of ball impression 0.6 mm
9. Vicat softening temperature VST/B 83 °C to DIN 53460

► LKV/H

User information

No plastic is resistant to all chemicals. This also applies to halogen-free materials. At increased temperatures and under the influence of chemicals, stress cracks can occur when under load. Stress cracks occur in particular if plastics under tensile stress are attacked by chemicals

such as greases or cutting oils. It is crucial to check whether the products are suitable for their intended purpose. The application, use and processing of products lies beyond our control and are the sole responsibility of the user.

► PPO – polyphenyloxide

Temperature resistance: -30 °C to +85 °C
Unstable with: oils, greases, lubricants and fuels
Flame-resistance: to UL 94 V1
If exposed to UV light, the systems are subject to colour changes.
Risk of stress cracks: mainly at increased temperatures and under the influence of chemicals such as greases, cutting oils, etc

► Polyphenyloxide (PPO)

Thermal properties

Flammability: UL 94 V1
Self-extinguishing
Thermal expansion coefficient: $59 \times 10^{-6} 1/^\circ\text{C}$
With a temperature differential of 30 °C, this is equivalent to a length change of 1.77 mm per m.

Electrical properties

Breakdown voltage: >35 KV/mm
Surface resistance: $>10^{11} \Omega \times 2126;$
Specific resistance: $>10^{17} \Omega \times 2126;/\text{cm}$
Relative dielectric constants: ~2.7



lead-free



halogen-free

GC

Electro-galvanised
and yellow-chromated steel

Terms and Conditions of Sale and Delivery

OBO BETTERMANN GmbH & Co. KG and OBO BETTERMANN Projekt und Systemtechnik GmbH, Menden

1. All our supplies and services shall be governed exclusively by the following terms and conditions, including our additional terms and conditions for cable tray business transactions. Any terms and conditions of business and purchasing of the customer shall be void only if we have acknowledged them in writing. Our quotations are without engagement, they are mere invitations to submit contract offers. Any and all transactions and agreements, including those entered into by our employees and agents shall only be binding upon our written confirmation or issuing. The foregoing provision shall also apply to any modifications of the agreed formal requirements.

2. The documents and data pertaining to the quotation, such as illustrations, brochures, drawings, dimensions, loading capacity values and weight details are approximate only, unless they are expressly stipulated to be binding. Samples are non-binding samples for inspection. Any purchase according to sample will be subject to customary deviations and deviations resulting from normal production processes. The properties of the sample shall be no guaranteed quality of the purchase object unless expressly stated otherwise in the confirmation of order. Samples must be returned to us at the latest within four weeks in perfect condition. If they are not returned within this period in proper condition, we shall be entitled to charge the purchase price for the sample in accordance with our current price list. All information on our products, in particular the illustrations, drawings, weight, dimension and performance data included in our quotations and printed matter shall be regarded as approximate average values and shall not represent any quality guarantee.

With regard to products made according to customer drawings, samples and other instructions of the customer, we will not provide any warranty nor assume any liability for the due and proper functioning of the product or for any other defects if and to the extent they are based upon the customer's specifications. The customer shall indemnify us from any third party claims, including claims for product liability as may be asserted against us for damages resulting from the products unless we have caused such damages by intent or gross negligence. The customer shall warrant that the manufacturer and supply of products made in accordance with his instructions will not infringe any proprietary rights of third parties. Should any proprietary rights be asserted against us, we shall be entitled, without any legal review of the third party claims, to withdraw from the contract after hearing the customer, unless the third party withdraws the claims asserted against us under its proprietary rights within eight days by written declaration. The customer shall compensate us for any damage sustained as a result of the assertion of proprietary rights. In case of withdrawal, the work we have carried out so far shall be remunerated. Further rights under the statutory provisions shall not be affected thereby.

Any moulds, tools and design data produced by us for the execution of the order shall be our exclusive property. Unless expressly agreed otherwise, the customer shall not have any claims thereto, even if he has contributed to the costs of producing any such moulds, tools and design data.

3. The packing, shipping route and means of transportation shall be left to our discretion in the absence of any other agreements. They shall be charged at their cost price. We will take back undamaged cases, when being returned carriage paid, at 2/3 of the amount invoiced. The one-way or pool pallets used for transport shall be either exchanged upon taking delivery or returned. The smallest packing units stocked and listed may not be broken up for rationalisation reasons. In case of orders for different quantities, the nearest packing unit will be supplied.

We reserve the right to deviate from the agreed delivery quantity, in particular in the case of custom-made products, to a customary extent or in conformity with national or international standards. In case of a demand for adhering to a precise quantity, an express reference is necessary and subject to confirmation.

Master and call orders shall oblige the customer to accept the total quantity on which the master/call order is based. Where no particular call orders are specified in the contract, the total quantity of the master call order must be called within twelve months. If the customer fails to adhere to call deadlines, we shall be entitled to deliver and charge the total quantity in full after four weeks from written notice with reference to the consequences of any failure to call. Our rights arising from any default of the customer shall not be affected thereby.

4. Unless otherwise agreed, our prices are quoted ex works and do not include packing and insurance. The value added tax at the rate applicable on the date of dispatch will be added to our prices. The purchaser shall ensure the correctness of his VAT identification number, which he must notify to us immediately without being asked. He shall undertake to inform both us and the competent domestic tax authority without delay of any change in his name, address and VAT identification number.

Delivery shall be franco domicile within Germany, i.e. cartage and packing prepaid, if the net order value is in excess of € 1,200. For small orders below € 100 (net excluding value added tax), we shall invoice a lower quantity surcharge of € 15 (net) per order. Upon transfer of our supplies and services to a carrier or forwarding agent, at the latest upon their leaving our warehouse or supply plant, the risk shall pass to the recipient, even in case of deliveries free place of destination.

5. Delivery periods and delivery deadlines shall be approximate only unless we have expressly stated in writing that they are binding. Delivery periods shall commence upon receipt of our confirmation of order, but not before clarification of all execution details, ex place of delivery. The customer shall only be entitled to withdraw from the contract after having granted a reasonable extension of time. We reserve the right to make partial deliveries. Claims for damages and reimbursement of expenses - for any reason whatsoever - shall be subject to the provisions set out in article 10.

In the event of any circumstances that are beyond our control within the scope of normal operating risks and obstruct or make impracticable any delivery, we shall be entitled to suspend delivery by the duration of such obstruction plus a reasonable start-up period or to withdraw from the contract for the part not yet fulfilled. The purchaser can demand a statement from us as to whether we wish to deliver within a reasonable period or withdraw. If we fail to make such a statement, the purchaser may withdraw. Our notice to the purchaser shall be deemed to be sufficient evidence that we have been prevented from delivering.

Delivery time is extended in case of such events as labour disputes, strikes and lockouts, orders from the authorities, difficulties with the procurement of materials, spoiled work or post-processing, shutdowns and staff shortage as well as shortage of means of transport, and general occurrence of unforeseen events beyond our scope of influence, by the length of duration of these events.

6. Payments shall be made upon receipt of invoice less a 3% cash discount for payment within 10 days or net after 30 days from date of invoice. Erection work and all paid labour work must be paid within 10 days without deduction of any cash discount. In case of non-cash payments, the date of the credit note will be deemed to be the date of receipt of payment. Payments received shall always be credited first against costs, then against interest and then against the earliest liability. Cheques and bills of exchange shall only be accepted as means of payment. Any payment by bill of exchange shall be subject to a prior separate and written agreement, whereby all bill costs shall be borne by the customer and no discount can be granted. The customer shall have no right to release performance and no right of retention - for any legal reason whatsoever - unless we have acknowledged his claim beforehand in writing or his claim has the force of law.

The customer shall only be entitled to set off claims which have the force of law, are undisputed or acknowledged by us in writing.

7. We shall retain title to the goods supplied by us until all our claims arising from our business transactions with the customer have been satisfied - current account clause - and all bills of exchange or cheques submitted for payment by the customer have been honoured.

Any treatment or processing of goods subject to our retention of title (reserved goods) shall be carried out for us as the manufacturer in accordance with § 399 BGB (German Civil Code) without any obligation on our part. If our reserved goods are to be regarded as the main item or the main item is owned by the customer, full title to the new item shall pass to us when it is created. In other cases, we shall acquire a co-ownership interest in the new item in the proportion of the sales value of our reserved goods to the other goods used for the new item at the time of processing, intermingling, joining or mixing. The customer shall take custody of our ownership or co-ownership interest free of charge; it shall be treated as reserved goods.

Before transfer of title, our goods shall be neither pledged nor assigned as collateral without our prior consent. In addition, any third party rights or pledges shall be notified to us immediately and we shall be given all details and provided all documents necessary for intervention; otherwise the customer must bear our loss. In the latter case, our total claims against the customer shall also be immediately payable.

The customer shall be entitled to sell or to use our reserved goods in the ordinary course of business subject to the condition that the relevant claims are transferred in accordance with article 6 below. This right shall lapse upon the customer's failure to promptly meet his payment obligations towards us or in the event of any cheque or bill protests or his suspension of payments. In such cases, we shall be entitled to take back the goods provisionally at the customer's expense and to sell them at our duly exercised discretion after a corresponding reminder has been

sent to the customer. We will then pass the due amount to the customer's credit.

8. If our goods are sold before payment of our claim, the customer shall be obliged to retain our title against his purchaser until the goods have been paid for in full by the purchaser. The claim arising against the purchaser from such resale as well as any other ancillary rights or security interests of the customer resulting from the sale and any claims for compensation in case of damage to or destruction of our reserved property, including the relevant insurance sum shall hereby be assigned to us. We hereby accept this assignment. Where our co-ownership interest is sold, the relevant claims shall be assigned in the amount corresponding to the value of our interest. The customer shall, at our request, inform us of his purchasers, notify them of the assignment made and provide us with any and all documents required to assert our rights.

As long as the customer meets his contractual obligations without delay, he shall be authorised to collect the claims assigned. He shall keep the amounts collected on our behalf separately and remit them to us immediately as soon and as far as our claims become due. The assignment shall lapse in case of any cheque or bill protest of the customer or his definite suspension of payments. The customer shall bear the costs incurred for any action taken against third parties and shall advance them upon request.

If the security provided to us by the retention of title and the anticipatory assignment should exceed the claims to be secured by more than 20%, we shall, at the customer's request, release part supplies of our choice. Upon payment of all our claims by the customer, assigned claims shall pass to the customer.

9. Any complaints for obvious defects regarding the quantity or quality of our supplies and services that are identifiable upon careful inspection shall without delay, but at the latest within the period of limitation of eight days from arrival of the goods at the address of the customer or the person appointed by him, be notified in writing to us, not to our representatives. Slight deviations in dimensions and design within the scope of defined technical tolerances shall not give rise to any right of complaint. Any rejected goods may only be returned to us with our prior written authorisation.

In case of justified complaints within the prescribed period, we shall, at our option, take remedial action by way of subsequent performance, by rectifying the defect, supplying non-defective goods or providing a credit note for the lower value calculated.

We shall be entitled to refuse subsequent performance in accordance with the statutory provisions, if we refuse subsequent performance, if any subsequent performance remains unsuccessful or if the customer cannot be reasonably expected to accept any subsequent performance, the latter shall be entitled to withdraw from the contract in compliance with the provisions of the following sentences. The customer shall only be entitled to withdraw from the contract - where a withdrawal is not excluded by law - upon the unsuccessful expiry of a reasonable period for subsequent performance set by him, unless this period was not required under the statutory provisions (§§ 281 para. 2, 323 para. 2, 440, 441 para. 1 BGB (German Civil Code)).

In case of his withdrawal, the customer shall be liable for any deterioration, destruction or loss of use resulting from any negligence or intent on his part. Any claims for damages or reimbursement of expenses of the customer shall be subject to the provisions set out in article 10.

In the case of any fraudulent concealment of a defect or in the case of any provision of a quality guarantee for the goods sold at the time of the passing of risk within the meaning of § 444 BGB (German Civil Code) [seller's declaration that the object sold has a specific property at the time of the passing of risk and that the seller, regardless of any fault on his part, intends to be governed for any and all consequences resulting from its absence], the customer's rights shall be exclusively governed by the statutory provisions.

We shall - in addition to the statutory grounds for refusal - also be entitled to refuse subsequent performance if and as long as the customer fails to send us, at our request, the rejected goods or a sample thereof, the customer shall have no right of withdrawal for any such refusal. We may further refuse any subsequent performance if the goods concerned have been altered or modified without our consent unless the customer can prove that the defect was not caused by such alteration or modification.

The limitation period for any claims arising from defects shall be one year; in the case of goods which have been used in accordance with their intended purpose for a building and have ceased its defectiveness, the limitation period shall be two years. The provisions of §§ 476, 478 BGB (German Civil Code) on recourse in the chain of suppliers shall not be affected thereby.

10. In the case of a pre-contractual, contractual or non-contractual breach of duty, including uncontractual delivery, tortious conduct and producer's liability, we shall only be liable for compensatory damages and reimbursement of expenses - subject to further contractual or statutory liability requirements - in the case of intent, gross negligence or slightly negligent breach of a material contractual duty (contractual duty the infringement of which jeopardises the fulfilment of the object of the contract). However - except in the case of intent - our liability shall be limited to the typical contractual damage that was foreseeable at the time the contract was entered into. The purchaser shall not be permitted to make a claim for expenses incurred in vain.

Except for any breach of material duties, our liability for slight negligence shall be excluded, but in any case be limited to the amount of the purchase price.

Any claim asserted by the customer or a third party for payment of a contractual penalty shall be excluded.

With regard to damages caused by delay, we shall only be liable for slight negligence up to the amount of 3% of the purchase price agreed with us.

The exclusions and limitations of liability set forth above shall not apply in the event that a guarantee is given with respect to the quality of the object sold within the meaning of § 444 BGB (German Civil Code) if a defect is fraudulently concealed or in the event of injury to life, physical injury or injury to health, or strict liability under the German Product Liability Act.

Any and all claims for damages against us, for any legal reason whatsoever, shall become statute-barred at the latest after one year from delivery of the goods to the customer, in the case of tortious liability from the time of knowledge, or grossly negligent ignorance, of the circumstances giving rise to the claim and the person liable to pay damages. This provision shall not apply in the case of liability for intent and in the event that a guarantee is given for the quality of the object sold, in the case of fraudulent concealment of a defect or in the event of injury to life, physical injury or injury to health, or strict liability under the German Product Liability Act. Any shorter limitation periods shall take precedence.

11. We shall be entitled to process and store any customer data obtained with regard to or in connection with the business relationship in accordance with the German Federal Data Protection Act, irrespective of whether each data is provided by the purchaser himself or by any third parties.

12. Place of performance for delivery and payment is Menden/Gaetand. The court of competent jurisdiction for any and all disputes, including disputes with regard to bills of exchange and cheques, is the Local Court (Amtsgericht) of Menden or, at our option, the District Court (Landgericht) of Arnsberg, irrespective of the value of the object in dispute. We shall, however, also be entitled to take legal proceedings against the customer at the place of his registered office.

German law shall be exclusively applicable. The application of international purchase law is hereby excluded. Should, for any reason whatsoever, individual provisions of our terms and conditions of sale and delivery be invalid, the validity and binding nature of the other provisions shall not be affected thereby. The customer agrees that the invalid provision shall be replaced by a valid provision that comes as close as possible to the economic meaning of the invalid provision.

13. The prices of products made of brass and copper are subject to certain fluctuations that are based on the relevant DEL ledings. The prices of our brass articles are based on a DEL listing of € 150 for Ms 58, those of our copper products on a DEL value for electrolytic copper of € 200.

In case of any increase or reduction in these prices by more than € 15, a five per cent surcharge or deduction shall be made for each 15 points. The calculation of any such surcharges or deductions shall be based on the DEL listing of the date of our receipt of the order.

Valid from August 2004

Conducting electricity.
Routing data.
Controlling energy.



VBS Connection and fastening systems

- Junction box systems
- Flush-mounted and cavity wall systems
- Terminal systems
- Screw-in systems
- Fastening systems
- Beam clamp systems
- Rail systems
- Screw-in and knock-in systems

TBS Transient voltage and lightning protection systems

- Surge protection systems
- Equipotential bonding systems
- Earthing systems
- Lightning protection systems

KTS Cable support systems

- Mounting systems
- Rail systems
- Cable tray systems
- Mesh cable tray systems
- Cable ladder systems
- Wide span systems
- Vertical ladder systems
- Luminaire support systems
- Modular systems
- Stainless steel systems
- Function maintenance and MLAR systems

BSS Fire protection systems

- Cable insulation
- Fire protection ducts
- Function maintenance
- MLAR systems

LFS Cable routing systems

- Line routing duct systems
- Dado duct systems
- Wiring duct systems
- Skirting duct systems
- Skirting duct systems, accessories
- Media columns

EGS Device systems

- Basic elements
- Electronic devices
- OBO BUS system
- Radio systems
- Standard
- Dialog
- Aura
- Modul 45
- Hospital technology
- Wet room range
- Data technology

UFS Underfloor systems

- Underfloor systems, screed-covered
- Duct systems in-screed, flush with floor surface
- Cavity and false floor systems
- Device installation systems



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