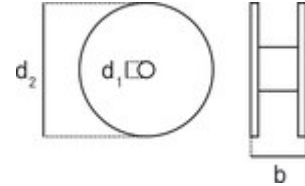


### Product Description

Type-compliant versions <HAR>-certified with “<HAR>” testing and certification mark for accelerated granting of approvals if final application of cable is within the European CENELEC area



### Application range

- Laying in tubes, exposed or buried in plaster, and in closed installation ducts
- For direct laying on racks, troughs and tubes only as potential equalisation conductor

### Benefits

- Type-compliant versions <HAR>-certified with “<HAR>” testing and certification mark for accelerated granting of approvals if final application of cable is within the European CENELEC area

### Design

- Fine-wire strand made of bare copper wires
- Core insulation: Based on PVC

### Product features

- Flame-retardant according to IEC 60332-1-2
- Spool:  $d_1 = 18 \text{ mm}$ ;  $d_2 = 200 \text{ mm}$ ;  $b = 85 \text{ mm}$



**Technical Data**

**Approvals**

HD 21/VDE 0281

**Specific insulation resistance**

> 20 GOhm x cm

**Conductor stranding**

Fine wire according to VDE 0295 Class 5/ IEC

60228 Class 5

**Minimum bending radius**

At a cable temperature of 20 °C ± 10 °C, according to HD 516

OD ≤ 8 mm: 4 x OD\*/2 x OD\*\*

8 < OD ≤ 12 mm: 5 x OD\*/3 x OD\*\*

OD > 12 mm: 6 x OD\*/4 x OD\*\*

**Nominal voltage**

U0/U: 450/750 V

**Test voltage**

2500 V

**Current rating**

VDE 0298 Part 4

HD 516/VDE 0298-300

**Temperature range**

Fixed installation: -30°C to +80°C

**Article List**

Part number	Conductor cross-section (mm <sup>2</sup> )	Outer diameter (mm)	Core colour	m/coil	m/spool	Copper index (kg/km)	Weight (kg/km)
4520001S	1,5	3.4	Green/yellow		150	14.4	22
4520011S	1,5	3.4	black		150	14.4	22
4520021S	1,5	3.4	blue		150	14.4	22
4520141S	1,5	3.4	Dark blue		150	14.4	22
4520031S	1,5	3.4	brown		150	14.4	22
4520111S	1,5	3.4	yellow		150	14.4	22
4520121S	1,5	3.4	green		150	14.4	22
4520071S	1,5	3.4	violet		150	14.4	22
4520041S	1,5	3.4	red		150	14.4	22
4520051S	1,5	3.4	white		150	14.4	22
4520061S	1,5	3.4	grey		150	14.4	22
4520002S	2,5	4.1	Green/yellow		100	24.0	37
4520012S	2,5	4.1	black		100	24.0	37
4520022S	2,5	4.1	blue		100	24.0	37
4520142S	2,5	4.1	Dark blue		100	24.0	37
4520032S	2,5	4.1	brown		100	24.0	37
4520112S	2,5	4.1	yellow		100	24.0	37
4520122S	2,5	4.1	green		100	24.0	37

4520042S	2,5	4.1	red		100	24.0	37
4520052S	2,5	4.1	white		100	24.0	37
4520062S	2,5	4.1	grey		100	24.0	37
4520001	1,5	3.4	Green/yellow	100		14.4	22
4520011	1,5	3.4	black	100		14.4	22
4520021	1,5	3.4	blue	100		14.4	22
4520141	1,5	3.4	Dark blue	100		14.4	22
4520031	1,5	3.4	brown	100		14.4	22
4520111	1,5	3.4	yellow	100		14.4	22
4520121	1,5	3.4	green	100		14.4	22
4520071	1,5	3.4	violet	100		14.4	22
4520081	1,5	3.4	Pink	100		14.4	22
4520041	1,5	3.4	red	100		14.4	22
4520051	1,5	3.4	white	100		14.4	22
4520061	1,5	3.4	grey	100		14.4	22
4520161	1,5	3.4	ultra-marine blue	100		14.4	22
4520002	2,5	4.1	Green/yellow	100		24.0	37
4520012	2,5	4.1	black	100		24.0	37
4520022	2,5	4.1	blue	100		24.0	37
4520142	2,5	4.1	Dark blue	100		24.0	37
4520032	2,5	4.1	brown	100		24.0	37
4520112	2,5	4.1	yellow	100		24.0	37
4520122	2,5	4.1	green	100		24.0	37
4520072	2,5	4.1	violet	100		24.0	37
4520082	2,5	4.1	Pink	100		24.0	37
4520042	2,5	4.1	red	100		24.0	37
4520052	2,5	4.1	white	100		24.0	37
4520062	2,5	4.1	grey	100		24.0	37
4520162	2,5	4.1	ultra-marine blue	100		24.0	37
4520003	4	4.8	Green/yellow	100		38.0	45
4520013	4	4.8	black	100		38.0	45
4520023	4	4.8	blue	100		38.0	45
4520143	4	4.8	Dark blue	100		38.0	45
4520033	4	4.8	brown	100		38.0	45
4520113	4	4.8	yellow	100		38.0	45
4520123	4	4.8	green	100		38.0	45
4520073	4	4.8	violet	100		38.0	45
4520043	4	4.8	red	100		38.0	45
4520053	4	4.8	white	100		38.0	45
4520063	4	4.8	grey	100		38.0	45
4520163	4	4.8	ultra-marine blue	100		38.0	45



4520004	6	5.3	Green/yellow	100		58.0	71
4520014	6	5.3	black	100		58.0	71
4520024	6	5.3	blue	100		58.0	71
4520144	6	5.3	Dark blue	100		58.0	71
4520034	6	5.3	brown	100		58.0	71
4520114	6	5.3	yellow	100		58.0	71
4520124	6	5.3	green	100		58.0	71
4520074	6	5.3	violet	100		58.0	71
4520094	6	5.3	orange	100		58.0	71
4520044	6	5.3	red	100		58.0	71
4520054	6	5.3	white	100		58.0	71
4520064	6	5.3	grey	100		58.0	71
4520164	6	5.3	ultra-marine blue	100		58.0	71
4520005	10	6.8	Green/yellow	100		96.0	120
4520015	10	6.8	black	100		96.0	120
4520025	10	6.8	blue	100		96.0	120
4520145	10	6.8	Dark blue	100		96.0	120
4520035	10	6.8	brown	100		96.0	120
4520125	10	6.8	green	100		96.0	120
4520075	10	6.8	violet	100		96.0	120
4520095	10	6.8	orange	100		96.0	120
4520045	10	6.8	red	100		96.0	120
4520055	10	6.8	white	100		96.0	120
4520065	10	6.8	grey	100		96.0	120
4520165	10	6.8	ultra-marine blue	100		96.0	120
4520006	16	8.1	Green/yellow			153.6	187
4520016	16	8.1	black			153.6	187
4520026	16	8.1	blue			153.6	187
4520146	16	8.1	Dark blue			153.6	187
4520036	16	8.1	brown			153.6	187
4520126	16	8.1	green			153.6	187
4520076	16	8.1	violet			153.6	187
4520096	16	8.1	orange			153.6	187
4520046	16	8.1	red			153.6	187
4520056	16	8.1	white			153.6	187
4520066	16	8.1	grey			153.6	187
4520166	16	8.1	ultra-marine blue			153.6	187
4521001	25	10.2	Green/yellow			240.0	290
4521011	25	10.2	black			240.0	290
4521021	25	10.2	blue			240.0	290
4521141	25	10.2	Dark blue			240.0	290



4521031	25	10.2	brown			240.0	290
4521121	25	10.2	green			240.0	290
4521091	25	10.2	orange			240.0	290
4521041	25	10.2	red			240.0	290
4521051	25	10.2	white			240.0	290
4521061	25	10.2	grey			240.0	290
4521002	35	11.7	Green/yellow			336.0	399
4521012	35	11.7	black			336.0	399
4521022	35	11.7	blue			336.0	399
4521142	35	11.7	Dark blue			336.0	399
4521032	35	11.7	brown			336.0	399
4521042	35	11.7	red			336.0	399
4521122	35	11.7	green			336.0	399
4521092	35	11.7	orange			336.0	399
4521062	35	11.7	grey			336.0	399
4521003	50	13.9	Green/yellow			480.0	559
4521013	50	13.9	black			480.0	559
4521023	50	13.9	blue			480.0	559
4521033	50	13.9	brown			480.0	559
4521093	50	13.9	orange			480.0	559
4521043	50	13.9	red			480.0	559
4521063	50	13.9	grey			480.0	559
4521004	70	16.0	Green/yellow			672.0	776
4521014	70	16.0	black			672.0	776
4521024	70	16.0	blue			672.0	776
4521034	70	16.0	brown			672.0	776
4521044	70	16.0	red			672.0	776
4521005	95	18.2	Green/yellow			912.0	1031
4521015	95	18.2	black			912.0	1031
4521025	95	18.2	blue			912.0	1031
4521006	120	20.2	Green/yellow			1152.0	1285
4521016	120	20.2	black			1152.0	1285
4521026	120	20.2	blue			1152.0	1285
4521046	120	20.2	red			1152.0	1285
4521166	120	20.2	ultra-marine blue			1152.0	1285
4521007	150	22.5	Green/yellow			1440.0	1563
4521017	150	22.5	black			1440.0	1563
4521008	185	24.9	Green/yellow			1776.0	1915
4521018	185	24.9	black			1776.0	1915
4521028	185	24.9	blue			1776.0	1915
4521009	240	28.4	Green/yellow			2304.0	2550



4521019	240	28.4	black			2304.0	2550
4520091	1,5	3.4	orange	100		14.4	22
4520091S	1,5	3.4	orange		150	14.4	22
4520092	2,5	4.1	orange	100		24.0	37
4520092S	2,5	4.1	orange		100	24.0	37
4520093	4	4.8	orange	100		38.0	45

**Footnote:**

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.

Copper price basis: EUR 150/100kg. Refer to Appendix T17 for the definition and calculation of copper-related surcharges.

Packaging size: Coil ≤ 30 kg, otherwise drum

Photographs are not to scale and do not represent detailed images of the respective products.

\*for conventional use, \*\*for careful bending; "OD" = outer diameter