



## Type designations for control cables and harmonised cables (excerpts)

## Control cables

□ □ □ □ □ □ □ x □  
1 2 3 4 5 6 7 8

## 1. Basic type

N VDE standard  
(N) or X in line with VDE

## 2. Insulating material

Y Thermoplastic resins  
X Cross-linked thermoplastic resins  
G Elastomers  
HX Halogen-free materials

## 3. Cable designation

A Core cable  
D Solid wire  
AF Fine-wire core cable  
F Socket core  
L Fluorescent tube cable  
LH Connecting cable,  
light mechanical loads  
MH Connecting cable,  
moderate mechanical loads  
SH Connecting cable,  
heavy mechanical loads  
SSH Connecting cable for special loads  
SL Control cable/welding cable  
S Control cable  
LS Light control cable  
FL Flat cable  
Si Silicone cable  
Z Twin cable  
GL Glass fibre  
Li Braided conductor as per VDE 0812  
LiF Braided conductor as per VDE 0812,  
extra-fine wire

## 4. Special features

T Supporting element  
Ö Enhanced oil resistance  
U Flame-retardant  
w Heat-resistant, weather-resistant  
FE Insulation retained for a limited time  
C Screening braid  
D Screening as Cu wire wrapping  
S Steel wire braiding as mech. protection

## 5. Sheaths

As point 2.  
"Insulating material" P/PUR polyurethane

## 6. Protective conductor

-O Without protective conductor  
-J With protective conductor

## 7. Number of cores

... number of cores

## 8. Conductor cross-section

Figures in mm<sup>2</sup>

## Harmonised cables

□ □ □ □ □ - □ □ □ □  
1 2 3 4 5 6 7 8 9

## 1. Basic type

H Harmonised type  
A National type

## 2. Nominal voltage

01 100/100 volts  
03 300/300 volts  
05 300/500 volts  
07 450/750 volts

## 3. Insulating material

V PVC  
V2 PVC +90 °C  
V3 PVC flexible at cold temperatures  
B Ethylene propylene rubber  
E PE polyethylene  
X XPE, cross-linked PE  
R Rubber  
S Silicone rubber

## 4. Outer/inner sheath material

V PVC  
V2 PVC +90 °C  
V3 PVC flexible at cold temperatures  
V5 PVC with enhanced oil resistance  
R Rubber  
N Chloroprene rubber  
Q Polyurethane  
J Glass fibre braiding  
T Textile braiding

## 5. Special features

C4 Copper wire screen braiding  
H Flat cable, divisible  
H2 Flat cable, not divisible  
H6 Flat cable, not divisible,  
for lifts  
H8 Helical/spiral cable

## 6. Conductor type

U Single-wire  
R Multi-wire  
K Fine-wire (fixed installation)  
F Fine-wire (flexible installation)  
H Extra-fine wire  
Y Tinsel wire  
D Fine-wire conductor  
for welding cable  
E Extra-fine wire conductor  
for welding cable

## 7. Number of cores

... number of cores

## 8. Protective conductor

X Without protective conductor  
G With protective conductor

## 9. Conductor cross-section

Figures in mm<sup>2</sup>

## Telecommunications cables

□ □ - □ □ □ □ □ x □ x □ □ □ □  
1 2 3 4 5 6 7 8 9 10

## 1. Basic type

A- Outdoor cable  
G- Mining cable  
J- Installation cable  
Li Hose, flexible cable  
S- Jumper cable

## 2. Additional designation

B Lightning protection design  
J Induction protection  
E Electronics

## 3. Insulating material

Y PVC 11Y PUR  
2Y Polyethylene  
O2Y Cellular PE 9Y PP  
5Y PTFE  
6Y FEP  
7Y ETFE  
P Paper

## 4. Special features

F Petroleum jelly filling  
L Aluminium sheath  
LD Corrugated aluminium sheath  
(L) Aluminium strip  
(ST) Metal foil screening  
(K) Copper strip screening  
C Copper screen braiding  
(Z) Steel wire braiding  
W Corrugated steel sheath  
M Lead sheath  
Mz Special lead sheath  
b Armouring  
c Jute sleeve + ground  
E Ground layer + strip

## 5. Sheathing

(see point 3. "Insulating material")

## 6. Number of elements

... number of stranding elements

## 7. Stranding element

1 Single core  
2 Pair

## 8. Conductor diameter

... in mm

## 9. Stranding element

F Star quad (railway)  
St Star quad (phantom)  
StI Star quad (trunk cable)  
StII Star quad (local cable)  
TF Star quad for TF  
S Signal cable (railway)  
PiMF Screened pair

## 10. Stranding type

Lg Twisted into layers  
Bd Twisted into bundles

## EXAMPLE: NSHTÖU 24G 1.5

ÖLFLEX® CRANE NSHTÖU cable, 24-core,  
with protective cond., cross-section: 1.5 mm<sup>2</sup>

## EXAMPLE: H05 VV-F 3G 1.5

Medium PVC hose, 3-core,  
with protective cond., cross-section: 1.5 mm<sup>2</sup>

## EXAMPLE: A2Y(L)2Y 6 x 2 x 0.8 Bd

Telephone cable for local network  
with PE insulation and layered sheath



## Type designations for telecommunications cables and fibre-optic cables

### Fibre-optic cables

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1      2 3 4 5 6    7 8    9    10

#### 1. Basic type

A	Outdoor cable
AT	Outdoor cable, divisible
J	Indoor cable
J/A or U	Indoor/outdoor cable, universal cable

#### 2. Fibres

B	Loose tube, unfilled
D	Loose tube, filled
V	Tight-buffered fibres

#### 3. Design elements

F	Petroleum jelly filling
Q	Swelling tape

#### 4. Further design elements

S	Metal element in cable core
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#### 5. Sheath

2Y	PE sheath
11Y	PUR sheath
H	Halogen-free sheath
(ZM)	With metallic strain relief elements
(ZN)	With non-metallic strain relief elements
(ZN)2Y	PE sheath with non-metallic strain relief elements

#### 6. Armouring

B	Armouring
B2Y	Armouring with PE casing
(BN)	Glass yarn armouring
(SG)	Steel sheath
(SR)	Corrugated steel sheath
(SR)2Y	Corrugated steel sheath with PE casing

#### 7. Number of fibres

Number of fibres

#### 8. Fibre type

E	Monomode fibre glass/glass (SM GOF)
G	Gradient fibre glass/glass (MM GOF)
K	Stepped fibre glass/plastic (PCF)
P	Polymer optical fibre/plastic (POF)

#### 9. Core diameter/fibre sheath diameter

50/125	Multimode glass fibre
62,5/125	Multimode glass fibre
9/125	Monomode glass fibre
200/230	Plastic-coated glass fibre
980/1000	Polymer optical fibre

#### 10. Category: fibre quality

OM3	For 50/125 OM3 multimode fibres
OM2	For 50/125 OM2 multimode fibres
OM1	For 62.5/125 OM1 multimode fibres
OS2	For 9/125 OS2 monomode fibres (G 652D)

#### EXAMPLE 1: A-DQ(ZN)(SR)2Y 12G 50/125 OM3

Outdoor cable with corrugated steel sheath, central loose tube, non-metallic strain relief made of glass yarn, 12 fibres, 50/125 µm OM3 multimode fibres

#### EXAMPLE 2: J-V2Y(ZN)11Y 2P 980/1000

Plastic fibre-optic cable, two-fibre (duplex), indoor cable with PE inner sheath, non-metallic strain relief, PUR outer sheath

### Cable's identification code GEN to CEI-UNEL 35011

#### Conductors

U	Solid Conductor
R	Stranded conductor
F	Flexible Conductor
FF	Extra Flexible Conductor

#### Insulations

R	PVC
R2	PVC Type R2
R3	PVC 105°C
R7	PVC 90°C
E	Polyethylene
E4	Cross-linked Polyethylene (XLPE)
G4	Silicon Rubber
G7	High Module Ethylene Propylene Rubber (HEPR)
G10	Low Smoke Cross-Linked Polyolefin (XLPO)
T	Mica Glass Tape

#### Cable's shape

O	Round shape cable
D	Flat Cable
X	Cores twisted in pairs, triad, quad

#### Shields

C	Copper Concentric conductor
H	Aluminium Polyester Tape
H1	Copper tape or Copper wires shield
H2	Copper Braid Shield
H3	Double Copper Braid Shield
H5	Longitudinal Aluminium Tape

#### Armours

A	Steel Wire Braid
F	Steel Wires
N	Steel Tape
Z	Steel Stripes
L	Lead Jacket
H4	Longitudinal Corrugated Steel Tape

#### Jackets

R	PVC
R4	Polyamide (nylon)
E	Polyethylene
E4	Cross-linked Polyethylene (XLPE)
G	Cross-linked Elastomer
M1	Low Smoke Halogen Free Thermoplastic Material
M2	Low Smoke Halogen Free cross-linked Material
T	Textile Braid
T1	Glass Type
T2	Special Textile
P	Polyetherane
Tpe	Thermoplastic Elastomer

CONDUCTORS

INSULATIONS

CABLE'S SHAPE

SHIELDS

ARMOURS

JACKETS