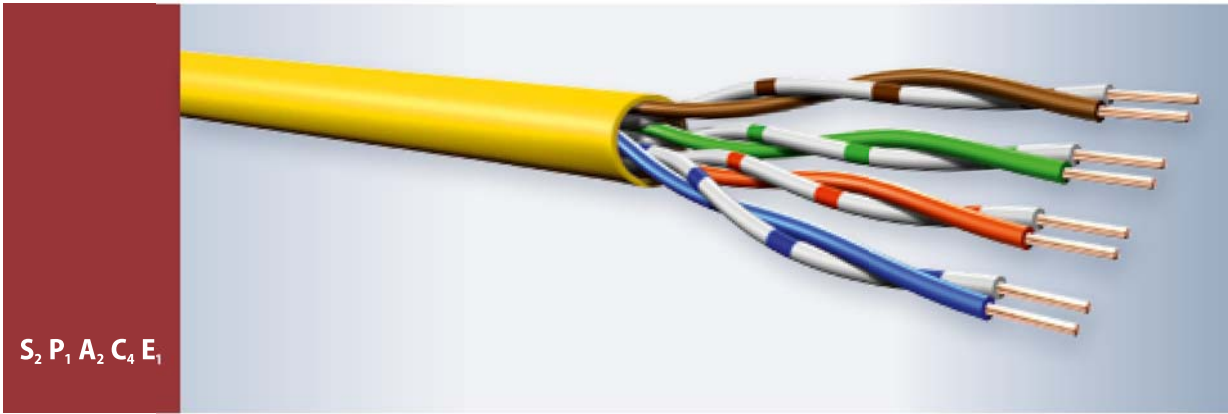


MegaLine® E2-30 U/U

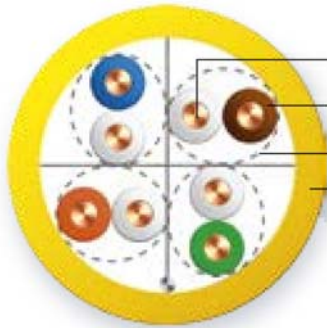
Type KS-2YH 4x2xAWG 23/1

Category 6



S₂ P₁ A₂ C₄ E₁

Construction



| | |
|------------------|--|
| Conductor | Bare copper wire, AWG 23/1 |
| Insulation | PE |
| Twisting element | Pair |
| Twisting | 4 pairs separated by a cross element |
| Outer sheath | Halogen-free, flame-retardant compound |

| | |
|---------------------------|-----------------------|
| Fire behaviour | |
| Flame retardancy | acc. to IEC 60332-1-2 |
| Halogen free | acc. to IEC 60754-1/2 |
| Smoke density | acc. to IEC 61034-1/2 |
| Calorific value (approx.) | 0.65 MJ/m |

| | |
|---|--|
| Performance | |
| Better than Category 6 acc. to EN 50288 and IEC 61156 | |
| bandwidth 300 MHz | |

| | |
|---|--|
| Applications | |
| Installation cable for use in structured cabling systems | |
| acc. to ISO/IEC 11801 and EN 50173 (2nd edition). | |
| Suitable for applications from Classes D to E up to 1 GbE acc. to IEEE 802.3 ab, VolP, PoE. | |

| | |
|------------------------------------|---|
| Mechanical characteristics | |
| Bending radius | during installation 8 x overall diameter (min.) |
| | after installation 4 x overall diameter (min.) |
| Tensile strength (max.) | 110 N |
| Crush strength | 1,000 N/100 mm |
| Impact strength (number of shocks) | 10 |

| | |
|--|-------|
| Electromagnetic behaviour | |
| Coupling attenuation up to 1,000 MHz (nominal value) | 45 dB |

Security (fire behaviour)

| | | | | | |
|----------|---------------|---------------|----------------|-------------|-------------|
| S | 1 | 2 | 3 | 4 | 5 |
| | IEC 60332-2-2 | IEC 60332-1-2 | IEC 60332-3-24 | EFP Grade 1 | EFP Grade 2 |

Performance (cabling class, bandwidth)

| | | | | | |
|----------|-----------|------------------------|-----------|------------------------|-------------|
| P | 1 | 2 | 3 | 4 | 5 |
| | > Class E | > Class E _x | > Class F | > Class F _x | > Class "G" |
| | > 250 MHz | > 500 MHz | > 600 MHz | > 1000 MHz | > 1200 MHz |

Application (Ethernet, TV)

| | | | | | |
|----------|-----------|---------|--------------|----------|-------------|
| A | 1 | 2 | 3 | 4 | 5 |
| | > 100 MbE | > 1 GbE | Up to 10 GbE | > 10 GbE | > 10 GbE TV |

Construction (conductor dimensions, tensile strength)

| | | | | | |
|----------|--------|-----------|--------|--------|--------|
| C | 1 | 2 | 3 | 4 | 5 |
| | AWG 27 | AWG 26/25 | AWG 24 | AWG 23 | AWG 22 |

EMC (coupling attenuation)

| | | | | | |
|----------|---------|---------|---------|---------|---------|
| E | 1 | 2 | 3 | 4 | 5 |
| | > 40 dB | > 50 dB | > 60 dB | > 70 dB | > 80 dB |

Electrical characteristics (HF) at 20 °C

| Frequency MHz | Attenuation dB/100 m | | NEXT dB | | PSNEXT dB | | ACR dB at 100 m | | PSACR dB at 100 m | | ELFEXT dB at 100 m | | PSELFEXT dB at 100 m | | RL dB | |
|------------------|-------------------------|-----------------|------------|-----------------|--------------|-----------------|--------------------|-----------------|----------------------|-----------------|-----------------------|-----------------|-------------------------|-----------------|----------|-----------------|
| | typ. | Cat. 6 max.* | typ. | Cat. 6 min.* | typ. | Cat. 6 min.* | typ. | Cat. 6 min.* | typ. | Cat. 6 min.* | typ. | Cat. 6 min.* | typ. | Cat. 6 min.* | typ. | Cat. 6 min.* |
| 1 | 1.8 | 2.1 | 94 | 66 | 91 | 64 | 92 | 64 | 89 | 62 | 102 | 66 | 99 | 64 | 25.4 | – |
| 4 | 2.7 | 3.8 | 88 | 65 | 85 | 63 | 85 | 61 | 82 | 59 | 96 | 58 | 93 | 55 | 30.3 | 23 |
| 10 | 4.7 | 6 | 81 | 59 | 78 | 57 | 76 | 53 | 73 | 51 | 85 | 50 | 82 | 47 | 33.9 | 25 |
| 16 | 6.6 | 7.6 | 76 | 56 | 73 | 54 | 70 | 49 | 67 | 47 | 78 | 46 | 75 | 43 | 33.6 | 25 |
| 32.25 | 9.5 | 10.9 | 72 | 52 | 69 | 50 | 62 | 41 | 59 | 39 | 70 | 40 | 67 | 37 | 33.7 | 23.6 |
| 62.5 | 13 | 15.5 | 68 | 47 | 65 | 45 | 55 | 32 | 52 | 30 | 63 | 34 | 60 | 31 | 34.4 | 21.5 |
| 100 | 17.4 | 19.9 | 64 | 44 | 61 | 42 | 46 | 24 | 43 | 22 | 57 | 30 | 54 | 27 | 33.5 | 20.1 |
| 155 | 22 | 25.3 | 60 | 41 | 57 | 39 | 38 | 16 | 35 | 14 | 50 | 26 | 47 | 23 | 32.2 | 18.8 |
| 200 | 26.6 | 29.1 | 58 | 40 | 55 | 38 | 31 | 11 | 28 | 9 | 45 | 24 | 42 | 21 | 30.5 | 18 |
| 250 | 30.4 | 33 | 57 | 38 | 54 | 36 | 27 | 5 | 24 | 3 | 40 | 22 | 37 | 19 | 29 | 17.3 |
| 300 | 33.1 | – | 54 | – | 51 | – | 20 | – | 17 | – | 37 | – | 34 | – | 27 | – |

* EN 50288-6-1(2004)/IEC 61156-5(2002)

Electrical characteristics (LF) at 20 °C

| | | |
|---------------------------|------------|--------------|
| DC resistance | max. | 78 Ω/km |
| Insulation resistance | min. | 5 GΩ x km |
| Mutual capacitance | approx. | 50 pF/m |
| Capacitive coupling (e) | approx. | 1,500 pF/km |
| Signal velocity (c) | approx. | 0.67 |
| Propagation delay | approx. | 528 ns/100 m |
| Skew at 100 MHz | approx. | 30 ns/100 m |
| Characteristic impedance | at 100 MHz | 100 ± 5 Ω |
| Testing voltage U_{eff} | | 1,000 V |
| Operating voltage | max. | 125 V |

Thermal characteristics

| | |
|------------------------|---------------------|
| For fixed installation | –20 °C up to +60 °C |
| For mobile operation | 0 °C up to +50 °C |

Chemical characteristics

Free from hazardous substances acc. to RoHS 2002/95/EC


Printing on outer sheath


LEONI MegaLine E2-30 U/U 4P H SPACE Code 21241
 "production lot code" "meter marking"

Colour code

whbu/bu, whor/or, whgn/gn, whbn/bn

Certificates and approvals

Link performance: LEONI MegaLine® systems
 and further commercial connector systems
 Inspection certificates: acc. to DIN 55350-18-4.2.1/EN 10204
 Conforms to LVD (73/23/EEC): 

| Dimensions | Outer diam. approx. | Weight approx. | Cu content | Colour of sheath | Order no. |
|------------|------------------------|-------------------|------------|---|--------------------|
| | mm | kg/km | kg/km | | |
| 4 p | 6.4 | 45 | 21 |  Rape yellow RAL 1021 | LKD 7KS6 0002 0000 |

Package: Drum 1,000 m, box 305 m