

# 3G SDI/HD-SDI/HDI & ANALOGUE VIDEO SIGNAL DISTANCES ON DIGITAL VIDEO CABLE

## DIGITAL VIDEO CABLE TYPE

|                     |  |                |                |                |                |                |                   |
|---------------------|--|----------------|----------------|----------------|----------------|----------------|-------------------|
| <b>Standards</b>    | FRLS: UNE 50266-2-X IEC 60332-2-2X CEI 20-22/3-X ; FRLSHF:UNE 50266-2-X IEC 60332-2-2X CEI 20-22/3-X UNE 50267-2 UNE 50268-2 ; PTC: UNE 21-031 |                |                |                |                |                |                   |
| <b>Product Code</b> | 0325   | 0345           | 0338           | 0368           | 0367           | 0366           | 0331              |
| <b>Cable name</b>   | VK 2 (0,4/1,85)  | VK 5 (0,6/2,8) | VK 6 (0,8/3,7) | VK 7 (1,0/4,6) | VK 8 (1,4/6,6) | VK 9 (1,6/7,1) | VK 10 (AWG12/9,7) |

## CONSTRUCTION

|                             |                               |                               |                               |                               |                               |                               |                               |
|-----------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| <b>Inner Conductor (mm)</b> | 0,40 CuSn                     | 0,6 Cu                        | 0,8 Cu                        | 1.0 Cu                        | 1,4 Cu                        | 1,6 Cu                        | 7 x 0,75 CuAg                 |
| <b>Insulation</b>           | FHDPE (GAS INJECTED)          |                               |                               |                               |                               |                               |                               |
| <b>Shields / (Coverage)</b> | AL/PETP/AL foil + CuSn (100%) | AL/PETP/AL foil + CuSn (100%) | AL/PETP/AL foil + CuSn (100%) | AL/PETP/AL foil + CuSn (100%) | AL/PETP/AL foil + CuSn (100%) | AL/PETP/AL foil + CuSn (100%) | AL/PETP/AL foil + CuSn (100%) |
| <b>Sheath Material</b>      | PTC, FRLSHF                   | FRLS, FRLSHF                  | FRLS, FRLSHF                  | FRLS, FRLSHF                  | FRLS, FRLSHF                  | FRLS, FRLSHF                  | FRLS                          |
| <b>Sheath diameter (mm)</b> | 2,9                           | 4,5                           | 6                             | 7                             | 9,2                           | 10,3                          | 12,70                         |
| <b>Sheath colour</b>        | VARIOUS                       | VARIOUS                       | VARIOUS                       | GREEN, BLUE, BLACK            | VIOLET, BLUE                  | BLACK, BLUE                   | BLUE                          |

## ELECTRICAL PROPERTIES

|                                      |          |        |        |        |        |        |        |
|--------------------------------------|----------|--------|--------|--------|--------|--------|--------|
| <b>Impedance (Ohms)</b>              | 75 ± 1,5 | 75 ± 1 | 75 ± 1 | 75 ± 1 | 75 ± 1 | 75 ± 1 | 75 ± 1 |
| <b>Capacitance (pF/m)</b>            | 58,644   | 54,52  | 54,04  | 53     | 52,01  | 54,722 | 54,012 |
| <b>Inductance (uH/m)</b>             | 0,3695   | 0,3074 | 0,305  | 0,304  | 0,3233 | 0,3134 | 0,3981 |
| <b>Screening factor (dB)</b>         | >100     | >100   | >100   | >100   | >100   | >100   | >100   |
| <b>Velocity ratio (%)</b>            | 71,606   | 81,3   | 81,9   | 82,1   | 81,27  | 80,479 | 81,1   |
| <b>Inner DC resistance (Ohms/Km)</b> | 143      | 58,01  | 33,81  | 21,19  | 10,154 | 9,236  | 5,602  |
| <b>Outer DC resistance (Ohms/Km)</b> | 29,995   | 17,62  | 13,71  | 8,52   | 3,314  | 3,798  | 4,025  |

ATTENUATION at (Db/100m) / Maximum Transmission Distance (meters) At Serial Digital Data Rates(SDI/HDTV[HD-SDI]) / BNC Reference:We Suggest To Use Only 85% Of The Recommended Distance

|         |   |                |                 |                 |                 |                 |                 |                |
|---------|---|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------------|
|         | <b>SDI 135 Mhz/270 Mbps<br/>(SMPTE 259M, Component video)</b>   | 19,87 / 150,98 | 11,89 / 252,31  | 9,07 / 330,50   | 7,29 / 411,40   | 5,27 / 569,25   | 4,79 / 626,13   | 3,30 / 907,05  |
|         | <b>HD-SDI 750 Mhz/1.5 Gbps<br/>(SMPTE 292M,HDTV [HD-SDI])</b>   | 51,88 / 38,55  | 28,56 / 70,01   | 22,18 / 90,17   | 17,89 / 111,79  | 13,50 / 148,10  | 12,08 / 165,51  | 10,33 / 193,44 |
| 1.5Gbps | <b>HD-SDI 750 Mhz/1.5 Gbps<br/>(SMPTE 292M,HDTV [HD-SDI])<br/>VTG400D + BNC'S SDI + WFM700M</b>           | -----          | 5017-V / 107    | 5031-V / 130    | 5035-V / 170    | 5177-V / 205    | 5140-V / 260    | 5174-V / 280   |
| 1.5Gbps | <b>HD-SDI 750 Mhz/1.5 Gbps<br/>(SMPTE 292M,HDTV [HD-SDI])<br/>VTG400D + BNC'S HDTV/HD-SDI + WFM700M</b>   | -----          | 5017-HDTV / 116 | 5031-HDTV / 151 | 5035-HDTV / 182 | 5177-HDTV / 220 | 5140-HDTV / 270 | -----          |
| 3Gbps   | <b>3G-SDI 1,50 Ghz/3.0 Gbps<br/>(SMPTE 424M,Prog. Scan. HDTV [HD-SDI])</b>                                | 83,33 / 24     | -----           | -----           | -----           | -----           | -----           | 13,98 / 143    |
| 3Gbps   | <b>3G-SDI 1,50 Ghz/3.0 Gbps<br/>(SMPTE 424M,Prog. Scan. HDTV [HD-SDI])<br/>WFM7120+ BNC'S HDTV/HD-SDI</b> | -----          | 5017-HDTV / 90  | 5031-HDTV / 120 | 5035-HDTV / 150 | 5177-HDTV / 200 | 5140-HDTV / 230 | -----          |

## TRANSMISSION DISTANCE IN METERS OF ANALOGUE VIDEO SIGNAL WITH MINIMUM LOSSES (MAX-3dB)

|  |       |        |        |        |        |        |        |
|--|-------|--------|--------|--------|--------|--------|--------|
| <b>M-II (COMPONENT 5,0 Mhz BW)</b>       | 66,07 | 110,29 | 157,06 | 201,70 | 326,97 | 329,58 | 471,50 |
| <b>EBU-C (COMPOSITE 5,5 Mhz BW)</b>      | 62,48 | 104,16 | 150,01 | 190,51 | 302,26 | 305,52 | 449,04 |
| <b>BETACAM SP (COMPONENT 4,5 Mhz BW)</b> | 69,41 | 115,83 | 165,74 | 214,99 | 338,02 | 342,33 | 497,76 |
| <b>U-MATIC SP (COMPOSITE 4 Mhz BW)</b>   | 74    | 121,9  | 174,52 | 223,65 | 355,02 | 360,11 | 527,53 |
| <b>RGB /S-VHS (COMPOSITE 5,0 Mhz BW)</b> | 66,07 | 110,29 | 157,06 | 201,70 | 326,97 | 329,58 | 471,50 |