



# PROFINET 654 fixed installation, type A

# PROFINET 655 fixed installation, type A, UL approval

ELETTROTEK KABEL® PROFINET 654



## Construction:

|                      |   |
|----------------------|---|
| <b>CONDUCTOR:</b>    | SOLID BARE COPPER CONDUCTOR                       |
| <b>INSULATION:</b>   | PE COMPOUND                                       |
| <b>COLOUR CORES:</b> | BLUE, YELLOW, WHITE, ORANGE                       |
| <b>STRANDING:</b>    |   |
| - PROFINET 654:      | IN LAYERS   |
| - PROFINET 655:      | IN LAYERS + CENTRAL FILLER                        |
| <b>WRAPPING:</b>     | PET FOIL  |
| <b>SCREEN:</b>       |   |
| - PROFINET 654:      | TINNED COPPER BRAID                               |
| - PROFINET 655:      | ALUMINIUM TAPE + PET FOIL AND TINNED COPPER BRAID |
| <b>OUTER SHEATH:</b> | GREEN (SIMILAR RAL 6018) PVC COMPOUND             |

## Resistance:



**FLAME RETARDANT ACC. TO (PROFINET 655):**  
UL 1581 & 1060 (FT1)  
UL 1061  
IEC 60332-1



**OIL RESISTANCE ACC. TO:**  
DIN VDE 0473 PART.811-2-1 IEC 60811-2-1



**OZONE RESISTANCE ACC. TO (PROFINET 655):**  
EN 50396

## Technical data:

|   |   |                     |
|---|---|---------------------|
| <b>PEAK OPERATING VOLTAGE:</b>            | MAX. 350 V  |                     |
| <b>UL VOLTAGE:</b>                        | 300 V (PROFINET 655)  |                     |
| <b>TEST VOLTAGE:</b>                      |   |                     |
| - PROFINET 654:                           | CORE/CORE 1,5 kV<br>CORE/SCREEN 1,2 kV                      |                     |
| - PROFINET 655:                           | 2 kV  |                     |
| <b>TEMPERATURE RANGE</b>                  | <b>PROFINET 654</b>   | <b>PROFINET 655</b> |
| FIXED LAYING:                             | -30 UP TO +70°C   | -30°C UP TO +80°C   |
| FLEXIBLE APPLICATION:                     | -5 UP TO +70°C  | /                   |
| <b>MIN. BENDING RADIUS:</b>               |   |                     |
| - PROFINET 654:                           | 5 x D   |                     |
| - PROFINET 655:                           | 8 x D   |                     |
| <b>CHARACTERISTIC IMPEDANCE:</b>          | 100Ω ± 5Ω, ACC. TO EN 50288-2-2 (CAT 5E ACC. TO EN 50173-1) |                     |
| <b>OHMIC RESISTANCE AT 20°C MAX.Ω/km:</b> |   |                     |
| - PROFINET 654:                           | 58 ACC. TO VDE 0812   |                     |
| - PROFINET 655:                           | 56,4  |                     |

## Features:

**UL** AWM STYLE 2571 80°C 300 V CE  
or **cUL** 20601 80°C 300 V (PROFINET 655)

ACC. TO STANDARD IEC 61156-5 AND EN 50228-2-1 (PROFINET 655)

ROHS AND CE APPROVAL





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PROFINET 655 UL

| FREQUENCY<br>(MHZ) | ATTENUATION<br>(DB/100 M) |         | NEXT<br>(DB) |         | ACR-F<br>(DB/100 M) |      | ACR<br>(DB/100 M) |         | RETURN LOSS<br>(DB/100 M) |         |
|--------------------|---------------------------|---------|--------------|---------|---------------------|------|-------------------|---------|---------------------------|---------|
|                    | MAX. - STD                | TYPICAL | MIN. - STD   | TYPICAL | MIN.                | MIN. | MIN - STD         | TYPICAL | MIN. STD                  | TYPICAL |
| 1                  | 2,1                       | 1,6     | 65,3         | 80      | 64                  | 81   | 63,2              | 78,4    | -                         | 29      |
| 4                  | 4                         | 3,2     | 56,3         | 73      | 52                  | 72   | 52,3              | 69,8    | 23                        | 30      |
| 10                 | 6,3                       | 5,1     | 50,3         | 65      | 44                  | 63   | 44                | 59,9    | 25                        | 31      |
| 16                 | 8                         | 6,5     | 47,2         | 63      | 39,9                | 57   | 39,2              | 56,5    | 25                        | 31      |
| 20                 | 9                         | 7,4     | 45,8         | 60      | 38                  | 54   | 36,8              | 52,6    | 25                        | 31      |
| 31,25              | 11,4                      | 9,5     | 42,9         | 56      | 34,1                | 48   | 31,5              | 46,5    | 23,6                      | 27      |
| 62,5               | 16,5                      | 14,3    | 38,4         | 51      | 28,1                | 39   | 21,9              | 36,7    | 21,5                      | 26      |
| 100                | 21,3                      | 22      | 35,3         | 48      | 24                  | 32   | 14                | 29      | 20,1                      | 25      |

| Part no.       | No. of cores<br>x cross section<br>n x mm <sup>2</sup> | Outer-Ø<br>ca. mm<br>± 10% | Copper<br>weight<br>kg/km | Cable<br>weight approx.<br>kg/km | AWG<br>no. *) |
|----------------|--|----------------------------|---------------------------|----------------------------------|---------------|
| 39210CEX022M03 | 2 x 2 x 0,34   | 5,3                        | 28                        | 43                               | 22            |
| 39220CEX022A22 | 2 x 2 x 0,34   | 6,5                        | 33                        | 74                               | 22            |

Other dimension and colours available on request.