



**Cable & Connectors**

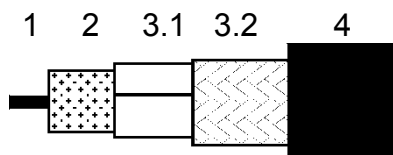
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## **WF125**

### **Application**

Coaxial cables used in cabled distribution networks designed according the European Standard EN 50117 operating at frequencies between 5 MHz and 2150 MHz and the International Standard IEC 1196.

### **Construction**



|     |                 |                                            |
|-----|-----------------|--------------------------------------------|
| 1   | Inner conductor | Solid soft annealed copper                 |
| 2   | Dielectric      | Gas injected PE                            |
| 3.1 | Foil            | Copper                                     |
| 3.2 | Braid           | Annealed copper                            |
| 4   | Sheath          | PE according the European Standard HD 624. |

### **Requirements and test methods**

#### **TEST METHODS IN ACCORDANCE WITH EUROPEAN STANDARD EN 50117-1.**

### **MECHANICAL CHARACTERISTICS**

|                                   |                             |
|-----------------------------------|-----------------------------|
| 1. Inner conductor.               |                             |
| Diameter:                         | 1.25 mm $\pm$ 0.02 mm       |
| 2. Dielectric:                    |                             |
| Diameter:                         | 5.7 mm $\pm$ 0.2 mm         |
| Adhesion:                         | 9.8 – 98 N at 25 mm         |
| 3. Outer conductor:               |                             |
| Diameter screen:                  | 6.3 mm $\pm$ 0.25 mm        |
| Foil overlap:                     | $\geq$ 2 mm                 |
| Coverage braid:                   | 47 % $\pm$ 5 %              |
| 4. Sheath:                        |                             |
| Material                          | PE Black                    |
| Diameter:                         | 8.1 mm $\pm$ 0.3 mm         |
| Tensile strength:                 | $\geq$ 10 N/mm <sup>2</sup> |
| Elongation at break:              | $\geq$ 300 %                |
| 5. Cable:                         |                             |
| Crush resistance of cable:        | < 1% (load of 700N)         |
| Storage/operating temperature:    | -40°C to +70°C              |
| Minimum installation temperature: | -5 °C                       |
| Minimum static bend radius:       | 80 mm                       |
| Total weight:                     | 52.3 g/m                    |



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## WF125 continued

### Electrical characteristics

|                                   |                                      |
|-----------------------------------|--------------------------------------|
| Mean characteristic impedance:    | $75 \pm 3 \Omega$                    |
| Regularity of impedance:          | $> 40 \text{ dB}$                    |
| DC loop resistance:               | $\leq 26.5 \Omega/\text{km}$         |
| DC resistance inner conductor:    | $\leq 14.5 \Omega/\text{km}$         |
| DC resistance outer conductor:    | $\leq 12.0 \Omega/\text{km}$         |
| Capacitance:                      | $54 \text{ pF/m} \pm 2 \text{ pF/m}$ |
| Velocity ratio:                   | $0.82 \pm 0.02$                      |
| Insulation resistance:            | $> 10^4 \text{ M}\Omega.\text{km}$   |
| Voltage test of dielectric:       | 2 kVdc                               |
| Screening efficiency 30-1000 MHz: | $\geq 85 \text{ dB}$                 |
| Return loss at 5-30 MHz:          | $\geq 23 \text{ dB}^*$               |
| 30-470 MHz:                       | $\geq 23 \text{ dB}^*$               |
| 470-862 MHz:                      | $\geq 20 \text{ dB}^*$               |
| 862-2400 MHz:                     | $\geq 18 \text{ dB}^*$               |

\*Max. 3 peak values 4 dB lower than specified.

| Attenuation at | Nominal      | Attenuation at | Nominal      |
|----------------|--------------|----------------|--------------|
| 5 MHz:         | 1.1 dB/100m  | 1000 MHz:      | 16.5 dB/100m |
| 50 MHz:        | 3.4 dB/100m  | 1350 MHz:      | 19.5 dB/100m |
| 100 MHz:       | 4.9 dB/100m  | 1600 MHz:      | 21.4 dB/100m |
| 200 MHz:       | 7.0 dB/100m  | 1750 MHz:      | 22.6 dB/100m |
| 400 MHz:       | 10.1 dB/100m | 2150 MHz:      | 25.3 dB/100m |
| 600 MHz:       | 12.5 dB/100m | 2400 MHz:      | 27.0 dB/100m |
| 800 MHz:       | 14.6 dB/100m | 3000 MHz:      | 30.2 dB/100m |

Maximum attenuation is 10% higher.

### Marking

Text Inkjet printing

|          |
|----------|
| WF125 PE |
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Metermarking: No

Other marking on request.