AFIRENAS **SHIELD** Z1OZ1-K (AS) 300/500 V

DoP : **MC05Z1OZ1K**. MIGUÉLEZ ARTICLE GROUP 224

CPR C_{ca}-s1b,d1,a1 · L.V.D. · CE · RoHS COMPLIANT · ZH

Flame & fire retardant, halogen-free and low gas and smoke emission with low opacity — IEC 60332-1-2, IEC 60332-3-24, IEC 60754-1, IEC 60754-2, IEC 61034-2

70°C 160°C Max. conductor temperature · mm² Cu class 5 flexible · Multicore cable · 300/500 V Rated voltage · Electromagnetic protection

Shielded cable · Safety services · Public access premises · Fire and explosion hazard · Tunnels · High-rise buildings · Industrial

Cca s1b,d1,a1 Reaction to fire (CPR) · Low heat emission EN 50399 · Flame retardant IEC 60332-1-2 · Fire retardant EN 50399 IEC 60332-3-24 · s1 TSP≤50m² SPR≤0.25m²/s Low smoke emission EN 50399 · 60%≤T<80% Low smoke opacity IEC 61034-2 · d1 t≤10s Low production of flaming droplets EN 50399 · pH>4.3 <2.5 µS/mm Low acidity & conductivity of gases IEC 60754-2 · HCl <0.5% Halogen-free IEC 60754-1

- **Reference standard (construction/tests)**:
  Reference EN 50288-7 / EN 50525-3-11.
- **Technical designation**: Z1OZ1-K (AS) 300/500 V.
- **Construction**:
  - Conductor: Copper, class 5 (EN 60228 / IEC 60228).
  - Insulation: Thermoplastic polyolefin, LSZH.
  - Shield: Al/PET tape + Tinned copper drain wire. Shield coverage (100 %).
  - Oversheath: Thermoplastic polyolefin, LSZH.
- **Rated voltage (Uo/U)**: 300/500 V AC.
- **Max. conductor temperature. Normal operation / short-circuit (t≤5s)**: 70 °C / 160 °C.
- **Range**: Multiconductor cable. **Configurations**: 2X1.5 mm² / 2X2.5 mm².
- **Reaction to fire classification (CPR - EN 50575 & EN 13501-6)**: C_{ca}-s1b,d1,a1.
- **Other fire performance features (when CPR Regulation is not applicable)**: Flame & fire retardant, halogen-free and low gas and smoke emission with low opacity/toxicity/corrosivity/conductivity (IEC 60332-1-2, IEC 60332-3-24, IEC 61034-2, IEC 60754-1 and IEC 60754-2).
- **Applications**: Shielded cable, recommended for electrical circuits that require protection against disturbances and electromagnetic interference.
  Specifically designed for use in safety circuits associated with fire detection and alarm systems (heat or smoke detectors, manual call points, warning devices...).
  - Ambient operating temperature (ranges):
    - Minimum: −30 °C (final static position, protected without exposure to movement, mechanical damages, shocks, or vibrations).
    - Maximum: +60 °C.
  - Minimum temperature for cable laying during installation and assembly of accessories: 0 °C.
    This temperature is valid for the cable itself and not for the environment. If possible, the temperature of the cable shall be raised before laying (e.g., storing it in a heated building) to facilitate handling and reduce the risk of damages.
  - Minimum bending radius: 10 x D. D = overall diameter of the cable in mm.
    Bending nearby the temperature limits should be carried out extra carefully.
  - Maximum pulling force:
    - If the traction force is applied on the copper conductors: **F = 50xS** (N). "S" = cross sectional area of conductors (mm²).
    - If the traction force is applied on the oversheath: **F = 3xD²** (N). "D" = overall diameter of the cable (mm).

    It is assumed that the cable route is well designed for the laying procedure with well-established curves and enough cable rollers (if needed).
    Special attention shall be paid to the required minimum bending radius.
- **Identification**: Oversheath colour → Red.
  - Insulated conductors: 2X - red and black.

2X
●
●

- **Packaging**: Drum/cut to length and Coils (C100 m).

Code*	No. of cores & nominal cross-sectional area	Insulation thickness	Overall diameter	Total weight	Maximum electrical resistance at 20°C (DC)
	mm²	mm	mm	kg/km	Ω/km
82240201-50	2 X 1.5	0.7	8.0	89	13.3
82240202-50	2 X 2.5	0.8	9.0	109	7.98

* Short product code. Must be completed with the corresponding characters for 'oversheath colour' and 'packaging'. Check the 'Miguélez product code' section on our web page, in 'Downloads'.
** Check the CPR-classified range and the range included in the certifications indicated for each product, as well as much more information about our products, on the website: **www.miguelez.com**
*** Dimensional and weight values are approximate and subject to normal manufacturing tolerances.
**** It is the sole responsibility of the end user to determine suitability of this product for its intended use and application. Please, consult the regulations, laws or standards that are applicable to each particular case. The installation systems and additional requirements established by any regulation, law and/or standards applicable to each particular case must be met.