

## Application

The ROZ1MZ1-K(AS+) cable is suitable for the connection of measuring, control and signalling instruments. It has a collective screen to avoid interference, and a reinforcement of galvanized steel wires that confers high mechanical performance. It is used where it is required to guarantee the supply of halogen-free, non-propagating and fire-resistant cables, such as the supply to emergency equipment: signalling, smoke extractors, acoustic alarms, water pumps, etc.

- Technical designation ROZ1MZ1(AS+): rigid copper conductor, class 2.
- Technical designation ROZ1MZ1-K(AS+): flexible copper conductor, class 5.
- Fire resistance up to PH120. Suitable for industrial use and ATEX areas.



## CONSTRUCTION

|                            |                                                                                                            |
|----------------------------|------------------------------------------------------------------------------------------------------------|
| <b>Conductor</b>           | Rigid (class 2) or flexible (class 5) electrolytic copper conductor according to UNE-EN 60228 / IEC 60228. |
| <b>Insulation</b>          | Mica tape + cross-linked polyethylene (XLPE) according to UNE EN 50288-7.                                  |
| <b>Screen (collective)</b> | Polyester tape + tinned copper drain wire + aluminum/mylar tape with 100% coverage.                        |
| <b>Inner sheath</b>        | Halogen-free compound according to UNE EN 50288-7.                                                         |
| <b>Armour</b>              | Galvanized steel wire.                                                                                     |
| <b>Outer sheath</b>        | Halogen-free compound according to UNE EN 50288-7.                                                         |

## ELECTRICAL & THERMAL PROPERTIES

|                                       |                           |
|---------------------------------------|---------------------------|
| <b>Nominal voltage</b>                | 300/500 V.                |
| <b>Test voltage</b>                   | 2,000 V.ac.               |
| <b>Max. conductor temperature</b>     | 90°C in normal operation. |
| <b>Max. short-circuit temperature</b> | 250°C (max. 5 s).         |

## FIRE PERFORMANCE

|                               |                                                                                                                                                                         |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Flame propagation</b>      | Non-propagating according to UNE-EN 60332-1-2 / EN 60332-1-2 / IEC 60332-1-2.                                                                                           |
| <b>Fire propagation</b>       | Non-propagating according to UNE-EN 60332-3 / EN 60332-3 / IEC 60332-3.                                                                                                 |
| <b>Halogen content</b>        | Halogen-free, according to UNE-EN 60754 / EN 50267 / IEC 60754.                                                                                                         |
| <b>Smoke emission</b>         | Low, according to UNE-EN 61034-2 / IEC 61034-2.                                                                                                                         |
| <b>Reaction to fire (CPR)</b> | Cca-s1b, d1, a1.                                                                                                                                                        |
| <b>Fire resistance</b>        | Up to PH120 (842°C, 120 minutes) according to UNE-EN 50200 for overall diameters up to 20 mm; above 20 mm according to UNE-EN 50362 (since replaced by EN IEC 60331-1). |

## OTHER PROPERTIES

|                                       |                                                                                                                                   |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| <b>UV resistance</b>                  | 1 cycle according to UNE 211605.                                                                                                  |
| <b>Water absorption</b>               | Resistant to water absorption.                                                                                                    |
| <b>Cold resistance</b>                | High cold resistance.                                                                                                             |
| <b>Impact &amp; rodent resistance</b> | Resistant to impact and rodents.                                                                                                  |
| <b>Electromagnetic protection</b>     | Yes, via screen.                                                                                                                  |
| <b>Available on request</b>           | Hydrocarbon/oil resistance (UIC-895 OR), UV resistance > 5 cycles (UNE 211605 / UNE-EN 50289-4-17:2016), rated voltage 450/750 V. |

## STANDARDS & APPROVALS

**Standard / directive** UNE 211025 / EN 50288-7. Low Voltage Directive (LVD) 2014/35/EU.

**Approvals / CPR** RoHS / CE / suitable for ATEX areas. CPR: Cca-s1b, d1, a1.

## DIMENSIONS & TECHNICAL DATA

Version: ROZ1MZ1(AS+), 300/500 V. CPR classification for all sections: Cca-s1b, d1, a1.

| Section  | Resistance at 20°C<br>(Ohm/km) | Class | External diameter<br>(mm) | Weight<br>(kg/m) |
|----------|--------------------------------|-------|---------------------------|------------------|
| 2X2X0.5  | 36                             | 2     | 14.0                      | 0.348            |
| 6X2X0.5  | 36                             | 2     | 17.7                      | 0.552            |
| 8x2x0.5  | 36                             | 2     | 18.8                      | 0.595            |
| 12X2X0.5 | 36                             | 2     | 23.9                      | 0.971            |
| 18X2X0.5 | 36                             | 2     | 27.5                      | 1.241            |
| 24X2X0.5 | 36                             | 2     | 30.8                      | 1.483            |
| 6x2x1    | 18.1                           | 2     | 20.7                      | 0.741            |
| 12x2x1   | 18.1                           | 2     | 27.3                      | 1.272            |
| 24x2x1   | 18.1                           | 2     | 36.6                      | 2.259            |
| 2X1.5    | 12.1                           | 2     | 12.2                      | 0.303            |
| 3X1.5    | 12.1                           | 2     | 13.0                      | 0.350            |
| 4X1.5    | 12.1                           | 2     | 14.0                      | 0.397            |
| 2X2X1.5  | 12.1                           | 2     | 16.3                      | 0.474            |
| 6X2X1.5  | 12.1                           | 2     | 22.8                      | 0.983            |
| 12X2X1.5 | 12.1                           | 2     | 29.2                      | 1.499            |
| 24X2X1.5 | 12.1                           | 2     | 38.9                      | 2.641            |
| 2X2.5    | 7.41                           | 2     | 13.9                      | 0.387            |
| 3X2.5    | 7.41                           | 2     | 14.4                      | 0.426            |

\* The stated outer diameters are approximate, always within production tolerance.