

Application

The RHOZ1MZ1-K(AS+) cable is suitable for the connection of measuring, control and signalling instruments. It has an individual and 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 RHOZ1MZ1(AS+): rigid copper conductor, class 2.
- Technical designation RHOZ1MZ1-K(AS+): flexible copper conductor, class 5.
- Fire resistance up to PH120. Suitable for industrial use and ATEX areas.



CONSTRUCTION

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

ELECTRICAL & THERMAL PROPERTIES

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

FIRE PERFORMANCE

Flame propagation	Non-propagating according to UNE-EN 60332-1-2 / EN 60332-1-2 / IEC 60332-1-2.
Fire propagation	Non-propagating according to UNE-EN 60332-3 / EN 60332-3 / IEC 60332-3.
Halogen content	Halogen-free, according to UNE-EN 60754 / EN 50267 / IEC 60754.
Smoke emission	Low, according to UNE-EN 61034-2 / IEC 61034-2.
Reaction to fire (CPR)	Cca-s1b, d1, a1.
Fire resistance	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

UV resistance	1 cycle according to UNE 211605.
Water absorption	Resistant to water absorption.
Cold resistance	High cold resistance.
Impact & rodent resistance	Resistant to impact and rodents.
Electromagnetic protection	Yes, via screen.
Available on request	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: RHOZ1MZ1-K(AS+), 300/500 V. CPR classification for all sections: Cca-s1b, d1, a1.

Section	Resistance at 20°C (Ohm/km)	Class	External diameter (mm)	Weight (kg/m)
2x2x1.5	13.3	5	19.3	0.63
3x2x1.5	13.3	5	20.3	0.67
5x2x1.5	13.3	5	24.2	1.01
6x2x1.5	13.3	5	26.5	1.19
10x2x1.5	13.3	5	31.7	1.61
12x2x1.5	13.3	5	35.7	2.06
20x2x1.5	13.3	5	43.7	2.88
24x2x1.5	13.3	5	47.9	3.62
6x3x1.5	13.3	5	29.9	1.48
10x3x1.5	13.3	5	36.4	2.19
12x3x1.5	13.3	5	39.6	2.51
20x3x1.5	13.3	5	49.5	3.91

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