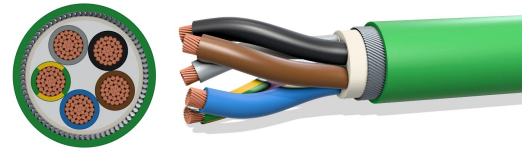


Application

The halogen-free and armoured RZ1MZ1-K(AS) cable is highly recommended for hazardous areas with explosive gas atmospheres (ATEX) or with risk of fire (petrochemical plants, service stations, flammable product stores, etc.), and in general where the cable is subject to risk of mechanical aggression.



- Technical designation RZ1MZ1-K(AS): flexible copper conductor, class 5.
- Suitable for industrial use and potentially explosive atmospheres (ATEX area).

CONSTRUCTION

Conductor	Flexible electrolytic copper conductor, class 5, according to UNE-EN 60228.
Insulation	Cross-linked polyethylene (XLPE), type DIX 3 according to UNE 21123, UNE HD 603 and type XLPE according to IEC 60502.
Inner sheath	Thermoplastic polyolefin sheath, type DMZ-E, according to UNE 21123 and type ST8 according to IEC 60502-1.
Armour	Crown galvanized steel wire according to IEC 60502-1 and UNE 21123-4.
Outer sheath	Thermoplastic polyolefin sheath, type DMZ-E, according to UNE 21123 and type ST8 according to IEC 60502-1.

ELECTRICAL & THERMAL PROPERTIES

Nominal voltage	0.6/1 kV AC.
Test voltage	3,500 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 EN 60332-1-2 / IEC 60332-1-2.
Fire propagation	Non-propagating according to EN 60332-3-24 / IEC 60332-3-24.
Halogen content	Halogen-free, according to EN 60754-1 / EN 60754-2 / IEC 60754-1 / IEC 60754-2.
Smoke emission	Low, according to EN 61034-2 / IEC 61034-2.
Reaction to fire (CPR)	Cca-s1b, d1, a1.

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.
Available on request	Hydrocarbon/oil resistance according to UIC-895 OR.

STANDARDS & APPROVALS

Standard	IEC 60502-1 / UNE 21123-4.
Directives	Low Voltage Directive (LVD) 2014/35/EU.
Approvals	RoHS / CE / suitable for ATEX areas.
CPR	Cca-s1b, d1, a1.

DIMENSIONS & TECHNICAL DATA

CPR classification for all sections below: Cca-s1b, d1, a1.

Single-core (1x), RZ1MAZ1-K (AS) with aluminium wire armour

Section (mm ²)	Resistance at 20°C (Ohm/km)	Nom. outer diameter (mm)	Weight (kg/m)
1x10	1.91	14.6	on request
1x16	1.21	15.7	on request
1x25	0.78	17.5	on request
1x35	0.554	18.6	on request
1x50	0.386	20.2	on request
1x70	0.272	22.2	on request
1x95	0.206	23.6	on request
1x120	0.161	25.8	on request
1x150	0.129	28.4	on request
1x185	0.106	30.8	on request
1x240	0.0801	33.3	on request
1x300	0.0641	38.0	on request
1x400	0.0486	42.1	on request

Two-core (2x)

Section (mm ²)	Resistance at 20°C (Ohm/km)	Nom. outer diameter (mm)	Weight (kg/m)
2x1.5	13.3	13.60	0.349
2x2.5	7.98	14.60	0.389
2x4	4.95	15.60	0.474
2x6	3.3	16.80	0.565
2x10	1.91	18.40	0.692
2x16	1.21	22.60	1.177
2x25	0.78	25.80	1.579
2x35	0.554	28.40	1.910
2x50	0.386	31.80	2.427

Three-core (3x)

Section (mm ²)	Resistance at 20°C (Ohm/km)	Nom. outer diameter (mm)	Weight (kg/m)
3x1.5	13.3	14	0.374
3x2.5	7.98	15.10	0.448
3x4	4.95	16.20	0.528
3x6	3.3	17.50	0.638
3x10	1.91	19.40	0.83
3x16	1.21	23.60	1.339
3x25	0.78	27.40	1.859
3x35	0.554	30.00	2.268
3x50	0.386	33.70	2.941
3x70	0.272	39.00	4.082
3x95	0.206	42.60	5.003
3x120	0.161	47.60	6.197
3x150	0.129	54.30	8.075
3x185	0.106	60.40	9.594
3x240	0.0801	65.60	11.86
3x300	0.0641	71.80	13.81

Four-core (4x)

Section (mm ²)	Resistance at 20°C (Ohm/km)	Nom. outer diameter (mm)	Weight (kg/m)
4x1.5	13.3	14.80	0.419
4x2.5	7.98	16.00	0.505
4x4	4.95	17.20	0.599
4x6	3.3	18.60	0.734
4x10	1.91	20.80	0.974
4x16	1.21	25.30	1.561
4x25	0.78	29.60	2.203
4x35	0.554	32.70	2.734
4x50	0.386	37.50	3.823
4x70	0.272	42.40	5.028
4x95	0.206	45.90	6.125
4x120	0.161	53.60	8.14
4x150	0.129	58.90	9.871
4x185	0.106	66.30	11.88
4x240	0.0801	72.40	14.07

Five-core (5x)

Section (mm ²)	Resistance at 20°C (Ohm/km)	Nom. outer diameter (mm)	Weight (kg/m)
5x1.5	13.3	15.60	0.463
5x10	1.91	24.20	1.456
5x16	1.21	27.20	1.890
5x50	0.386	40.9	4.460
5x70	0.272	46.20	5.840
5x95	0.206	51.60	7.610
5x120	0.161	58.40	9.456

Other core counts

Section (mm ²)	Resistance at 20°C (Ohm/km)	Nom. outer diameter (mm)	Weight (kg/m)
7x1.5	13.3	16.50	0.524
7x2.5	7.98	18.00	0.651
10x1.5	13.3	19.40	0.674
10x2.5	7.98	21.40	0.853
12x1.5	13.3	19.80	0.725
12x2.5	7.98	21.90	0.92
14x2.5	7.98	22.80	1.006
16x2.5	7.98	23.80	1.100
20x2.5	7.98	24.80	1.210
24x2.5	7.98	28.40	1.480

* The stated outer diameters are approximate, always within production tolerance. Multi-core versions from 3x120 mm² upward may be supplied with an aluminium armour wire. Single-core cables (designation RZ1MAZ1-K (AS)) have an aluminium wire armour; their weights are available from Q Cables on request.