

AFIREFENIX SZ1-K 0.6/1 kV PH120 (AS+) / MICA RZ1-K 0.6/1 kV PH120 (AS+)

MIGUÉLEZ ARTICLE GROUP 210



- Standard (construction/tests): UNE 211025.
- Technical designation: SZ1-K 0.6/1 kV PH120 (AS+) / MICA RZ1-K 0.6/1 kV PH120 (AS+).

• Construction:

SZ1-K 0,6/1 kV PH120 (AS+) (Cables with a cross-sectional area $S \leq 10 \text{ mm}^2$).

- Conductor: Copper, class 5 (IEC 60228).
- Insulation: Silicone (EN 50363-1).
- Oversheath: Thermoplastic polyolefin HFFR, type ST8 (IEC 60502-1).

RZ1-K(AS+) 0,6/1 kV PH120 (AS+) (Cables with a cross-sectional area $S \geq 16 \text{ mm}^2$).

- Conductor: Copper, class 5 (IEC 60228).
- Insulation: Mica tape + XLPE (IEC 60502-1).
- Oversheath: Thermoplastic polyolefin HFFR, type ST8 (IEC 60502-1).

Assembly of cores (multicore cables): Cores cabled helically.

Filler/Inner covering: Optional for multicore cables. Halogen free material, suitable for the operating temperature of the cable and compatible with the insulation and oversheath material.

- Rated voltage (Uo/U): 0.6/1 kV AC.
- Max. conductor temperature. Normal operation / short-circuit ($t \leq 5s$): 90 °C / 250 °C.
- Range: Single-core or multicore cable.
Configurations: 1x(1.5...500) mm² / 2x(1.5...50) mm² / (3-4)x o G(1.5...120) mm² / 5G(1.5...95) mm².
- Fire resistance: EN 50200 (PH120), EN IEC 60331-1 and IEC 60331-1 & 2 ($t \geq 120$ minutes).
- Reaction to fire classification (CPR - EN 50575 & EN 13501-6): Cca-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 60754-1, IEC 60754-2 and IEC 61034-2).

- Applications: Fixed installation. Especially designed for use as a power, control or command cable in installations where the power supply of certain circuits must be preserved regardless of being directly affected by fire. Specifically intended for non-autonomous safety circuits or circuits with centralised autonomous power systems, alarm circuits, signalling and emergency lighting, acoustic warning, exhaust fans and water pumps for fire suppression.

Suitable for indoor and outdoor installations (protected from direct and continuous exposure to UV radiation), on supports in the air or in conduits.

In the case the cable is installed on cable brackets, clamps or cleats, the horizontal distance between cleats should not surpass 20 times the overall diameter of the cable. The distance is also valid between points of support in case of laying on cable trays or cable ladders. The maximal distance between supports will never be greater than 80 cm under any circumstances.

Special attention must be paid to the conditions and system of installation used, in order to offer a reliable support for the cable in the event of fire and during the time that the cable must ensure continuity of electrical supply.

- Temperature ranges:

- Maximum ambient temperature: +60 °C.
- Minimum ambient temperature: -30 °C (static, permanently installed, protected against mechanical damage, without exposure to movement, mechanical damages, shocks, or vibrations).
- Minimum temperature for cable laying during installation and assembly of accessories: 0 °C. Under normal conditions of care. 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., 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.

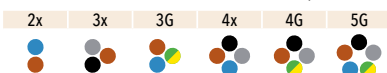
Bending nearby the temperature limits should be carried out extra carefully.

- Maximum pulling force:

- If the traction force is applied on the copper conductors: $F = 50 \times S \text{ (N)}$. S = cross-sectional area of the conductors (mm²).
 - If the traction force is applied on the oversheath: $F = 5 \times D^2 \text{ (N)}$. 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. Special attention shall be paid to the required minimum bending radius.

- Identification: Oversheath colour → Orange.

- Core identification for multicore cables (From 2 to 5): HD 308 S2.



- Packaging: Drum/cut to length and Coils (100 m).

* Short product code. Must be completed with the corresponding characters for 'oversheath colour' and 'packaging'. Check the 'Miguelélez 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.miguelélez.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.

Code*	Name	No. of cores & nominal cross-sectional area	Insulation thickness	Overall diameter	Total weight	Maximum electrical resistance at 20°C (DC)
		mm ²				
82100101-50	SZ1-K (AS+)	1 x 1.5	0.8	6.2	54	13.3
82100102-50	SZ1-K (AS+)	1 x 2.5	0.8	6.4	67	7.98
82100100040	SZ1-K (AS+)	1 x 4	1.0	7.4	93	4.95
82100100060	SZ1-K (AS+)	1 x 6	1.0	8.1	113	3.30
82100100100	SZ1-K (AS+)	1 x 10	1.0	9.0	160	1.91
82100100161	RZ1-K (AS+) MICA	1 x 16	0.7	10.2	210	1.21
82100100251	RZ1-K (AS+) MICA	1 x 25	0.9	11.7	303	0.780
82100100351	RZ1-K (AS+) MICA	1 x 35	0.9	13.5	419	0.554
82100100501	RZ1-K (AS+) MICA	1 x 50	1.0	14.8	561	0.386
82100100701	RZ1-K (AS+) MICA	1 x 70	1.1	16.6	771	0.272
82100100951	RZ1-K (AS+) MICA	1 x 95	1.1	18.4	967	0.206
82100101201	RZ1-K (AS+) MICA	1 x 120	1.2	20.5	1226	0.161
82100101501	RZ1-K (AS+) MICA	1 x 150	1.4	23.8	1557	0.129
82100101851	RZ1-K (AS+) MICA	1 x 185	1.6	24.9	1808	0.106
82100102401	RZ1-K (AS+) MICA	1 x 240	1.7	27.6	2376	0.0801
82100103001	RZ1-K (AS+) MICA	1 x 300	1.8	30.5	2963	0.0641
82100104001	RZ1-K (AS+) MICA	1 x 400	2.0	35.9	3962	0.0486
82100105001	RZ1-K (AS+) MICA	1 x 500	2.2	42.7	5017	0.0384
82100201-50	SZ1-K (AS+)	2 x 1.5	0.8	8.5	105	13.3
82100202-50	SZ1-K (AS+)	2 x 2.5	0.8	9.3	135	7.98
82100200040	SZ1-K (AS+)	2 x 4	1.0	11.0	190	4.95
82100200060	SZ1-K (AS+)	2 x 6	1.0	12.0	236	3.30
82100200100	SZ1-K (AS+)	2 x 10	1.0	14.8	389	1.91
82100200160	RZ1-K (AS+) MICA	2 x 16	0.7	18.3	617	1.21
82100200251	RZ1-K (AS+) MICA	2 x 25	0.9	20.0	695	0.780
82100200350	RZ1-K (AS+) MICA	2 x 35	0.9	22.9	1031	0.554
82100200500	RZ1-K (AS+) MICA	2 x 50	1.0	26.5	1431	0.386
82100311-50	SZ1-K (AS+)	3 G 1.5	0.8	9.5	130	13.3
82100312-50	SZ1-K (AS+)	3 G 2.5	0.8	10.3	170	7.98
82100310040	SZ1-K (AS+)	3 G 4	1.0	12.3	251	4.95
82100310060	SZ1-K (AS+)	3 G 6	1.0	13.5	333	3.30
82100310100	SZ1-K (AS+)	3 G 10	1.0	15.3	479	1.91
82100300161	RZ1-K (AS+) MICA	3 x 16	0.7	19.2	743	1.21
82100300251	RZ1-K (AS+) MICA	3 x 25	0.9	20.8	905	0.780
82100300351	RZ1-K (AS+) MICA	3 x 35	0.9	24.3	1481	0.554
82100300501	RZ1-K (AS+) MICA	3 x 50	1.0	28.1	2071	0.386
82100300701	RZ1-K (AS+) MICA	3 x 70	1.1	32.5	2876	0.272
82100300951	RZ1-K (AS+) MICA	3 x 95	1.1	35.9	3669	0.206
82100301201	RZ1-K (AS+) MICA	3 x 120	1.2	40.8	4721	0.161
82100411-50	SZ1-K (AS+)	4 G 1.5	0.8	10.3	160	13.3
82100412-50	SZ1-K (AS+)	4 G 2.5	0.8	11.3	210	7.98
82100410040	SZ1-K (AS+)	4 G 4	1.0	13.8	310	4.95
82100410060	SZ1-K (AS+)	4 G 6	1.0	15.0	405	3.30
82100410100	SZ1-K (AS+)	4 G 10	1.0	17.2	615	1.91
82100400161	RZ1-K (AS+) MICA	4 x 16	0.7	22.4	993	1.21
82100400250	RZ1-K (AS+) MICA	4 x 25	0.9	23.5	1155	0.780
82100400351	RZ1-K (AS+) MICA	4 x 35	0.9	27.4	1665	0.554
82100400501	RZ1-K (AS+) MICA	4 x 50	1.0	32.2	2327	0.386
82100400701	RZ1-K (AS+) MICA	4 x 70	1.1	38.2	3285	0.272
82100400951	RZ1-K (AS+) MICA	4 x 95	1.1	42.8	4275	0.206
82100401201	RZ1-K (AS+) MICA	4 x 120	1.2	47.9	5365	0.161
82100511-50	SZ1-K (AS+)	5 G 1.5	0.8	11.2	190	13.3
82100512-50	SZ1-K (AS+)	5 G 2.5	0.8	12.3	259	7.98
82100510040	SZ1-K (AS+)	5 G 4	1.0	15.2	380	4.95
82100510060	SZ1-K (AS+)	5 G 6	1.0	16.7	500	3.30
82100510100	SZ1-K (AS+)	5 G 10	1.0	19.0	724	1.91
82100510161	RZ1-K (AS+) MICA	5 G 16	0.7	23.9	1137	1.21
82100510251	RZ1-K (AS+) MICA	5 G 25	0.9	28.0	1700	0.780
82100510351	RZ1-K (AS+) MICA	5 G 35	0.9	32.1	2218	0.554
82100510501	RZ1-K (AS+) MICA	5 G 50	1.1	36.0	2870	0.386
82100510700	RZ1-K (AS+) MICA	5 G 70	1.1	39.9	4541	0.272
82100510950	RZ1-K (AS+) MICA	5 G 95	1.1	44.6	5875	0.206

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