



SHIELD

SHIELDED CABLES

LEZ BARRYFLEX SHIELD RC4V-K 0,6/1 kV

LEZ AFIRENAS SHIELD Z1C4Z1-K (A5)

AFIREFENIX SHIELD 50Z1-K (A5+) 300/500 V PH120

Miguêlez
CABLES

BARRYFLEX SHIELD H05VVC4V5-K

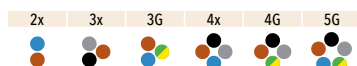
DoP : MEH05VVC4V5K.

MIGUÉLEZ ARTICLE GROUP

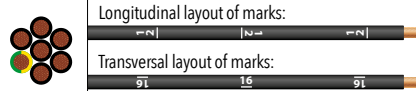
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- Standard (construction/tests): EN 50525-2-51.
- Technical designation: H05VVC4V5-K.
- Construction: Conductor: Copper, class 5 / Insulation: PVC type T12 / Inner Sheath: PVC type TM2 / Shield: Copper braid / Oversheath: PVC type TM5.
- Rated voltage (Uo/U): 300/500 V AC.
- Max. conductor temperature. Normal operation / short-circuit ($t \leq 5s$): 70°C / 160°C.
- Range: Multiconductor cable. Cross-sectional area: From 0.5 to 2.5 mm².
- Reaction to fire classification (CPR - EN 50575 & EN 13501-6): Eca.
- Other fire performance features (when CPR Regulation is not applicable): Flame retardant (IEC 60332-1-2).
- Applications: Shielded cable suitable for fixed installations that require electromagnetic protection. Especially designed for the interconnection of parts of machines intended for manufacturing, including machine tools, where some degree of protection against electromagnetic interference is necessary and in the case of applications requiring resistance to general application mineral oils.
Indoor installation. Outdoors for temporary periods of short duration.
For fixed installation. Provided that the cable is not under mechanical stress during any movement, it can be moved after installation, especially for the repositioning, maintenance, adjustment and inspection of machines.
Where the cables are not required to move in use, installation in conduit, trunking etc. is advised.
Contamination by hydrocarbons, acids and alkalis shall be avoided and the cables shall be protected against mechanical damage.
- Ambient operating temperature (ranges):
 - Minimum: -30 °C (static - without exposure to movement, mechanical damages, shocks, or vibrations).
 - Maximum: +50 °C.
- Minimum temperature for cable laying during installation and assembly of accessories: 5 °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., storing the cable in a heated room), in order 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: $F = 15 \times S$ (N). "S" = cross sectional area of conductors (mm²).
 - If the traction force is applied on the oversheath: $F = 3 \times D^2$ (N). "D" = overall diameter of the cable (mm).
- Identification: Oversheath colour → Black.
- Core identification for multicore cables (From 2 to 5): HD 308 S2.



- Core identification for multiconductor cables (N > 5 cores): EN 50334 (N-1 numbered black cores + G/Y).



- Packaging: Drum/cut to length.

Code*	No. of cores & nominal cross-sectional area	Insulation thickness	Overall diameter	Total weight	Maximum electrical resistance at 20°C (DC)
	mm ²	mm	mm	kg/km	Ω/km
8216020-750	2 x 0.75	0.6	8.6	132	26.0
82160200010	2 x 1	0.6	9.3	142	19.5
82160201-50	2 x 1.5	0.7	10.0	171	13.3
82160202-50	2 x 2.5	0.8	11.4	208	7.98
8216031-750	3 G 0.75	0.6	9.0	148	26.0
82160310010	3 G 1	0.6	9.9	166	19.5
82160311-50	3 G 1.5	0.7	10.5	198	13.3
82160312-50	3 G 2.5	0.8	12.0	249	7.98
82160410-50	4 G 0.5	0.6	9.3	140	39.0
8216041-750	4 G 0.75	0.6	9.8	164	26.0
82160410010	4 G 1	0.6	10.6	184	19.5
82160411-50	4 G 1.5	0.7	11.4	225	13.3
82160412-50	4 G 2.5	0.8	13.3	289	7.98
82160510-50	5 G 0.5	0.6	10.2	148	39.0
8216051-750	5 G 0.75	0.6	10.5	180	26.0
82160510010	5 G 1	0.6	11.5	203	19.5
82160511-50	5 G 1.5	0.7	12.7	252	13.3
82160512-50	5 G 2.5	0.8	14.5	329	7.98
82160710-50	7 G 0.5	0.6	11.0	172	39.0
8216071-750	7 G 0.75	0.6	11.5	212	26.0
82160710010	7 G 1	0.6	12.7	240	19.5
82160711-50	7 G 1.5	0.7	13.7	307	13.3
82160712-50	7 G 2.5	0.8	15.9	410	7.98
82161010-50	10 G 0.5	0.6	13.4	212	39.0
8216101-750	10 G 0.75	0.6	13.8	260	26.0
82161010010	10 G 1	0.6	15.7	295	19.5
82161011-50	10 G 1.5	0.7	17.0	389	13.3
82161012-50	10 G 2.5	0.8	19.8	532	7.98
82162010-50	20 G 0.5	0.6	16.9	346	39.0
8216201-750	20 G 0.75	0.6	17.8	419	26.0
82162010010	20 G 1	0.6	19.5	482	19.5
82162011-50	20 G 1.5	0.7	21.4	647	13.3
82163010-50	30 G 0.5	0.6	20.1	480	39.0
8216301-750	30 G 0.75	0.6	21.2	579	26.0
82163010010	30 G 1	0.6	23.3	680	19.5
82163011-50	30 G 1.5	0.7	25.7	907	13.3

* 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'.

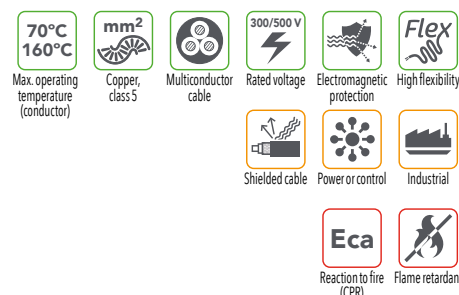
** Check the CPR-classified range and the range included in the certifications indicated for each product, as well as much more information about our products, on the website: www.miguelélez.com

*** Dimensional and weight values are approximate and subject to normal manufacturing tolerances.

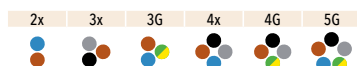
**** It is the sole responsibility of the end user to determine suitability of this product for its intended use and application. Please, consult the regulations, laws or standards that are applicable to each particular case.

The installation systems and additional requirements established by any regulation, law and/or standards applicable to each particular case must be met.

BARRYFLEX SHIELD VC4V-K 300/500 V

DoP: ME05VC4VK. MIGUÉLEZ ARTICLE GROUP
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- Standards (construction/tests): Especial construction based on EN 50525-2-11 standard.
- Technical designation: VC4V-K 300/500 V.
- Construction: Conductor: Copper, class 5 / Insulation: PVC / Shield: Al/PET tape + Cu Sn braid / Oversheath: PVC.
100% shield coverage (Cu Sn braid > 65%). *Other shielded constructions or materials under request...*
- Rated voltage (Uo/U): 300/500 V A.C.
- Max. conductor temperature. Normal operation / short-circuit (t≤5s): 70 °C / 160 °C.
- Range: Multiconductor cable. Cross-sectional areas: From 0.5 to 4 mm².
- Reaction to fire classification (CPR - EN 50575 & EN 13501-6): Eca.
- Other fire performance features (when CPR Regulation is not applicable): Flame retardant (IEC 60332-1-2).
- Applications: Shielded cable suitable for fixed installations that require electromagnetic protection.
Especially designed for use as a control and power cable in industrial plants.
Suitable for installation inside conduits or protective channels.
- Identification: Sheath colour → Black.
 - Core identification for multicore cables (From 2 to 5): HD 308 S2.



- Core identification for multiconductor cables (more than 5 cores): EN 50334 (Black numbered cores + yellow/green).
- Packaging: Drum/cut to length.

Code*	No. of cores & nominal cross-sectional area	Insulation thickness	Overall diameter	Total weight	Maximum electrical resistance at 20°C (D.C.)
	mm ²	mm	mm	kg/km	Ω/km
82190200-50	2 x 0,5	0,6	6,5	60	39,0
82190207-50	2 x 0,75	0,6	6,7	67	26,0
82190200-10	2 x 1	0,6	7,1	77	19,5
82190201-50	2 x 1,5	0,7	7,9	97	13,3
82190202-50	2 x 2,5	0,8	9,2	136	7,98
82190310-50	3 G 0,5	0,6	7,1	72	39,0
82190317-50	3 G 0,75	0,6	7,3	83	26,0
82190310-10	3 G 1	0,6	7,7	95	19,5
82190311-50	3 G 1,5	0,7	8,8	122	13,3
82190312-50	3 G 2,5	0,8	10,2	175	7,98
82190410-50	4 G 0,5	0,6	7,7	84	39,0
82190417-50	4 G 0,75	0,6	8,1	98	26,0
82190410-10	4 G 1	0,6	8,6	110	19,5
82190411-50	4 G 1,5	0,7	9,5	145	13,3
82190412-50	4 G 2,5	0,8	11,2	208	7,98
82190510-50	5 G 0,5	0,6	8,5	97	39,0
82190517-50	5 G 0,75	0,6	8,8	113	26,0
82190510-10	5 G 1	0,6	9,3	130	19,5
82190511-50	5 G 1,5	0,7	10,6	169	13,3
82190512-50	5 G 2,5	0,8	12,4	246	7,98
82190610-50	6 G 0,5	0,6	9,3	115	39,0
82190617-50	6 G 0,75	0,6	9,5	130	26,0
82190610-10	6 G 1	0,6	10,1	144	19,5
82190611-50	6 G 1,5	0,7	11,5	188	13,3
82190612-50	6 G 2,5	0,8	13,5	266	7,98
82190710-50	7 G 0,5	0,6	9,3	124	39,0
82190717-50	7 G 0,75	0,6	9,5	141	26,0
82190710-10	7 G 1	0,6	10,1	157	19,5
82190711-50	7 G 1,5	0,7	11,5	207	13,3
82190712-50	7 G 2,5	0,8	13,5	295	7,98
82190810-50	8 G 0,5	0,6	10,3	137	39,0
82190817-50	8 G 0,75	0,6	10,7	156	26,0
82190810-10	8 G 1	0,6	11,6	181	19,5
82190811-50	8 G 1,5	0,7	13,0	240	13,3
82190812-50	8 G 2,5	0,8	15,2	339	7,98
82190910-50	9 G 0,5	0,6	11,3	150	39,0
82190917-50	9 G 0,75	0,6	11,5	171	26,0
82190910-10	9 G 1	0,6	12,5	201	19,5
82190911-50	9 G 1,5	0,7	14,0	268	13,3
82190912-50	9 G 2,5	0,8	16,5	379	7,98
82191010-50	10 G 0,5	0,6	11,8	163	39,0
82191017-50	10 G 0,75	0,6	12,0	186	26,0
82191010-10	10 G 1	0,6	13,0	218	19,5
82191011-50	10 G 1,5	0,7	14,6	292	13,3
82191012-50	10 G 2,5	0,8	17,2	416	7,98
82191110-50	11 G 0,5	0,6	11,8	172	39,0
82191117-50	11 G 0,75	0,6	12,0	197	26,0
82191110-10	11 G 1	0,6	13,0	231	19,5
82191111-50	11 G 1,5	0,7	14,6	311	13,3
82191112-50	11 G 2,5	0,8	17,2	446	7,98

Code*	No. of cores & nominal cross-sectional area	Insulation thickness	Overall diameter	Total weight	Maximum electrical resistance at 20°C (D.C.)
	mm ²	mm	mm	kg/km	Ω/km
82191210-50	12 G 0,5	0,6	12,1	183	39,0
82191217-50	12 G 0,75	0,6	12,3	214	26,0
82191210-10	12 G 1	0,6	13,4	246	19,5
82191211-50	12 G 1,5	0,7	15,0	338	13,3
82191212-50	12 G 2,5	0,8	17,9	482	7,98
82191310-50	13 G 0,5	0,6	12,7	196	39,0
82191317-50	13 G 0,75	0,6	12,9	228	26,0
82191310-10	13 G 1	0,6	14,0	264	19,5
82191311-50	13 G 1,5	0,7	15,9	363	13,3
82191312-50	13 G 2,5	0,8	18,8	519	7,98
82191410-50	14 G 0,5	0,6	12,7	204	39,0
82191417-50	14 G 0,75	0,6	12,9	239	26,0
82191410-10	14 G 1	0,6	14,2	279	19,5
82191411-50	14 G 1,5	0,7	15,9	382	13,3
82191412-50	14 G 2,5	0,8	18,8	549	7,98
82191510-50	15 G 0,5	0,6	13,3	219	39,0
82191517-50	15 G 0,75	0,6	13,8	255	26,0
82191510-10	15 G 1	0,6	14,9	302	19,5
82191511-50	15 G 1,5	0,7	16,8	409	13,3
82191512-50	15 G 2,5	0,8	19,8	587	7,98
82191610-50	16 G 0,5	0,6	13,3	228	39,0
82191617-50	16 G 0,75	0,6	13,8	265	26,0
82191610-10	16 G 1	0,6	14,9	315	19,5
82191611-50	16 G 1,5	0,7	16,8	428	13,3
82191612-50	16 G 2,5	0,8	19,8	616	7,98
82191710-50	17 G 0,5	0,6	14,2	246	39,0
82191717-50	17 G 0,75	0,6	14,5	285	26,0
82191710-10	17 G 1	0,6	15,7	332	19,5
82191711-50	17 G 1,5	0,7	17,9	457	13,3
82191712-50	17 G 2,5	0,8	21,1	656	7,98
82191810-50	18 G 0,5	0,6	14,2	254	39,0
82191817-50	18 G 0,75	0,6	14,5	295	26,0
82191810-10	18 G 1	0,6	15,7	345	19,5
82191811-50	18 G 1,5	0,7	17,9	476	13,3
82191812-50	18 G 2,5	0,8	21,1	686	7,98
82191910-50	19 G 0,5	0,6	14,2	263	39,0
82191917-50	19 G 0,75	0,6	14,7	306	26,0
82191910-10	19 G 1	0,6	15,9	360	19,5
82191911-50	19 G 1,5	0,7	17,9	495	13,3
82191912-50	19 G 2,5	0,8	21,1	715	7,98
82192010-50	20 G 0,5	0,6	14,9	279	39,0
82192017-50	20 G 0,75	0,6	15,4	327	26,0
82192010-10	20 G 1	0,6	16,7	382	19,5
82192011-50	20 G 1,5	0,7	18,8	523	13,3
82192012-50	20 G 2,5	0,8	22,2	754	7,98

* Short product code. Must be completed with the corresponding characters for 'outer layer 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.

AFIRENAS SHIELD Z1C4Z1-K (AS) 300/500 V

DoP : MC05Z1C4Z1K-02. MIGUELÉZ ARTICLE GROUP
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- Standard (construction/tests): EN 50525-3-11 (reference).

- Technical designation: Z1C4Z1-K (AS) 300/500 V.

- Construction:

Conductor: Copper, class 5 / Insulation: Thermoplastic polyolefin LSZH / Shield: Al/PET tape + Cu Sn braid /
Oversheath: Thermoplastic polyolefin LSZH.
100% shield coverage (Cu Sn braid > 65%).

- Rated voltage (Uo/U): 300/500 V AC.

- Max. conductor temperature. Normal operation / short-circuit ($t \leq 5s$): 70 °C / 160 °C.

- Range: Multiconductor cable.

Configurations: 2x(0,5...4) mm² / 3x o 3G(0,5...4) mm² / 4x o 4G(0,5...4) mm² / 5G(0,75...4) mm² / (6...30) X o G 0,5 mm² / (6...28) X o G 0,75 mm² / (6...24) X o G 1 mm² / (6...17) X o G 1,5 mm² / (6...12) X o G 2,5 mm².

- 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: Shielded cable suitable for fixed installations that require protection against disturbances and electromagnetic interference. Especially designed to be used as a signaling, command or control cable in those installations which require electromagnetic protection (solenoid valve control, automaton and machine start-up, regulation...) and a special performance in case of fire (tunnels, high-rise buildings, fire hazard premises, airports, hospitals (or other public access premises)).

– Ambient operating temperature (ranges):

- Minimum: -30 °C (static – without exposure to movement, mechanical damages, shocks, or vibrations).
- Maximum: +50 °C.

– 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., storing the cable in a heated room), in order 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.

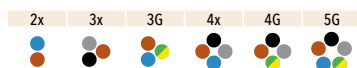
– Maximum pulling force:

- 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: $F = 3xD^2$ (N). "D" = overall diameter of the cable (mm).

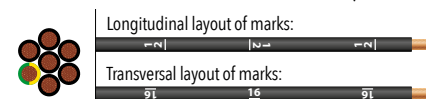
It is assumed that the cable route is well designed for the laying procedure with well-established curves and enough cable rollers (if needed). Special attention shall be paid to the required minimum bending radius.

- Identification: Oversheath colour → Green.

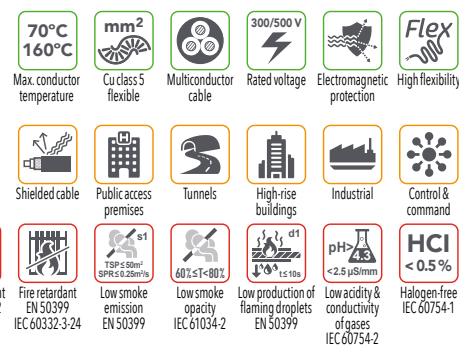
– Core identification for multicore cables (From 2 to 5): HD 308 S2.



– Core identification for multiconductor cables (N > 5 cores): EN 50334 (N-1 numbered black cores + G/Y).



- Packaging: Drum/cut to length.



Code*	No. of cores & nominal cross-sectional area	Insulation thickness	Overall diameter	Total weight	Maximum DC resistance at 20 °C
	mm ²	mm	mm	kg/km	Ω/km
82170200-50	2 x 0.5	0.6	7.7	76	39.0
8217020-50	2 x 0.75	0.6	7.8	81	26.0
82170200010	2 x 1	0.6	8.3	87	19.5
82170201-50	2 x 1.5	0.7	9.2	107	13.3
82170202-50	2 x 2.5	0.8	10.5	144	7.98
82170200040	2 x 4	0.8	11.8	183	4.95
82170310-50	3 G 0.5	0.6	8.0	87	39.0
8217031-750	3 G 0.75	0.6	8.2	95	26.0
82170310010	3 G 1	0.6	8.6	104	19.5
82170311-50	3 G 1.5	0.7	9.7	129	13.3
82170312-50	3 G 2.5	0.8	11.2	187	7.98
82170310040	3 G 4	0.8	12.5	237	4.95
82170410-50	4 G 0.5	0.6	8.7	100	39.0
8217041-750	4 G 0.75	0.6	8.9	110	26.0
82170410010	4 G 1	0.6	9.3	121	19.5
82170411-50	4 G 1.5	0.7	10.5	154	13.3
82170412-50	4 G 2.5	0.8	12.1	221	7.98
82170410040	4 G 4	0.8	13.6	279	4.95
8217051-750	5 G 0.75	0.6	9.6	126	26.0
82170510010	5 G 1	0.6	10.0	140	19.5
82170511-50	5 G 1.5	0.7	11.3	180	13.3
82170512-50	5 G 2.5	0.8	13.1	262	7.98
82170510040	5 G 4	0.8	14.7	341	4.95
82170610-50	6 G 0.5	0.6	10.0	127	39.0
8217061-750	6 G 0.75	0.6	10.3	142	26.0
82170610010	6 G 1	0.6	10.7	158	19.5
82170611-50	6 G 1.5	0.7	12.1	205	13.3
82170612-50	6 G 2.5	0.8	14.0	287	7.98
82170710-50	7 G 0.5	0.6	10.4	141	39.0
8217071-750	7 G 0.75	0.6	10.7	159	26.0
82170710010	7 G 1	0.6	11.1	177	19.5
82170711-50	7 G 1.5	0.7	12.6	231	13.3
82170712-50	7 G 2.5	0.8	14.7	327	7.98
82170810-50	8 G 0.5	0.6	11.3	154	39.0
8217081-750	8 G 0.75	0.6	11.5	175	26.0
82170810010	8 G 1	0.6	12.0	196	19.5
82170811-50	8 G 1.5	0.7	13.6	255	13.3
82170812-50	8 G 2.5	0.8	16.0	365	7.98
82171010-50	10 G 0.5	0.6	12.4	177	39.0
8217101-750	10 G 0.75	0.6	12.7	203	26.0
82171010010	10 G 1	0.6	13.3	230	19.5
82171011-50	10 G 1.5	0.7	15.1	310	13.3
82171012-50	10 G 2.5	0.8	17.7	443	7.98
82171210-50	12 G 0.5	0.6	12.6	194	39.0
8217121-750	12 G 0.75	0.6	13.1	227	26.0
82171210010	12 G 1	0.6	13.6	261	19.5
82171211-50	12 G 1.5	0.7	15.6	359	13.3
82171212-50	12 G 2.5	0.8	18.2	513	7.98
82171410-50	14 G 0.5	0.6	13.3	217	39.0
8217141-750	14 G 0.75	0.6	13.6	253	26.0
82171410010	14 G 1	0.6	14.4	297	19.5
82171411-50	14 G 1.5	0.7	16.4	406	13.3
82171710-50	17 G 0.5	0.6	14.6	261	39.0
8217171-750	17 G 0.75	0.6	15.0	302	26.0
82171710010	17 G 1	0.6	15.7	353	19.5
82171711-50	17 G 1.5	0.7	18.0	486	13.3
82172010-50	20 G 0.5	0.6	15.4	297	39.0
8217201-750	20 G 0.75	0.6	15.9	354	26.0
82172010010	20 G 1	0.6	16.6	415	19.5
82172410-50	24 G 0.5	0.6	16.8	332	39.0
8217241-750	24 G 0.75	0.6	17.4	394	26.0
82172410010	24 G 1	0.6	18.2	474	19.5
82172810-50	28 G 0.5	0.6	17.8	375	39.0
8217281-750	28 G 0.75	0.6	18.3	455	26.0
82172910-50	29 G 0.5	0.6	17.9	385	39.0
82173010-50	30 G 0.5	0.6	18.5	392	39.0

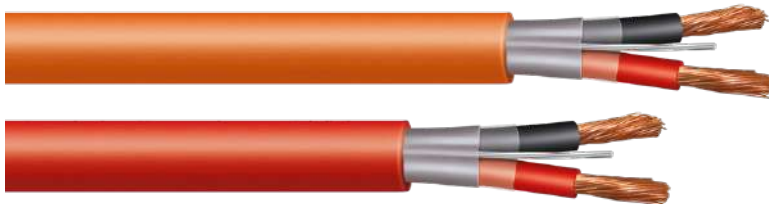
* Short product code. Must be completed with the corresponding characters for 'oversheath colour' and 'packaging'. Check the 'Miguelélez product code' section on our web page, in 'Downloads'.

** 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

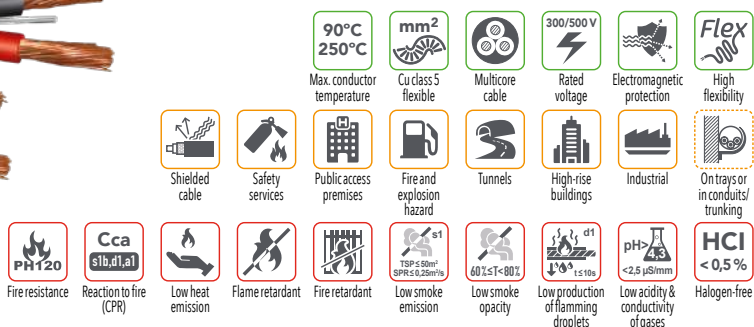
*** Dimensional and weight values are approximate and subject to normal manufacturing tolerances.

**** 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.

AFIREFENIX **SHIELD** SOZ1-K (AS+) 300/500 V PH120DoP : MC05SOZ1K. MIGUELÉLEZ ARTICLE GROUP
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EN 50200 / IEC 60331-2



- **Standards (construction & tests):** UNE 211025.
- **Technical designation:** SOZ1-K (AS+) 300/500 V PH120.
- **Construction:** Conductor: Copper, class 5 / Insulation: Silicone / Shield: Al/PET tape + drain wire Cu Sn / Oversheath: Thermoplastic polyolefin, LSZH. Shield coverage (100 %).
- **Rated voltage (Uo/U):** 300/500 V AC. (Voltage test 2000 V AC).
- **Max. conductor temperature. Normal operation / short-circuit (t≤5s):** 90 °C / 250 °C.
- **Range:** Multicore cable. Configurations: 2x1,5 mm² & 2x2,5 mm².
- **Fire resistance:** PH120 / Reaction to fire (CPR - EN 50575 & EN 13501-6): Cca-s1b,d1,a1.
- **Additional performance in case of fire (if the Construction Products Regulation is not applicable):** Fire resistant, fire & flame retardant, halogen-free and low gas and smoke emission with low opacity/toxicity/corrosivity/conductivity (EN 50200, IEC 60331-2, IEC 60332-1-2, IEC 60332-3-24, IEC 61034-2, IEC 60754-1 e IEC 60754-2).
- **Applications:** Shielded cable with intrinsic resistance to fire, recommended for electrical circuits that require protection against disturbances and electromagnetic interference. Specifically designed for use in security circuits associated with fire-fighting equipment, signaling, detection and alarm systems (pushbuttons, detectors...).
- Ambient operating temperature (ranges):
 - Minimum: –30 °C (static – without exposure to movement, mechanical damages, shocks, or vibrations).
 - Maximum: +70 °C.
- 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:
 - 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.
 - 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).
- **Identification:** Oversheath colour → Red (94) or orange (88).
 - Core identification: 2x (red and black).

2x



- **Packaging:** Drum/cut to length.
Other packaging formats on request.

Code*	No. of cores & nominal cross-sectional area	Insulation thickness	Overall diameter	Total weight	Maximum DC resistance at 20 °C
	mm ²	mm	mm	kg/km	Ω/km
82200201-50	2 x 1,5	0,8	8,3	85	13,3
82200202-50	2 x 2,5	0,8	9,0	110	7,98

* 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.

BARRYFLEX SHIELD VC4V-K 0.6/1 kV

DoP : ME1000VC4VK. MIGUELÉZ ARTICLE GROUP
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- Standards (construction/tests): UNE 21123-1 and IEC 60502-1.
- Technical designation: VC4V-K 0.6/1 kV.
- Construction: Conductor: Copper, class 5 / Insulation: PVC type PVC/A / Shield: Al/PET tape + Cu Sn braid / Oversheath: PVC type ST1. 100% shield coverage (Cu Sn braid > 65%). Other shield constructions or materials under request.
- Rated voltage (Uo/U): 0.6/1 kV AC.
- Max. conductor temperature. Normal operation / short-circuit (t≤5s): 70 °C / 160 °C.
- Range: Single-core or multicore cable.
- Configurations: 1 x (1.5...240) mm² / 2 x (1.5...150) mm² / (3-4)x or G(1.5...150) mm² / 5G(1.5...95) mm² / (6...27)G(1.5...2.5) mm².
- Reaction to fire classification (CPR - EN 50575 & EN 13501-6): Eca
- Other fire performance features (when the CPR Regulation is not applicable): Flame retardant (IEC 60332-1-2).
- Applications****: Shielded cable suitable for fixed installations that require electromagnetic protection. Especially designed to be used as a power, command or control cable in industrial plants (s≤10 mm² VFD, solenoid valves, regulation...). Perfect for protecting the cable, nearby signal cables or electronic devices against possible disturbances and interferences. Suitable for indoor and outdoor (protected from permanent and direct UV radiation) installations, on supports (brackets, clamps, cable trays or ladders), in conduits or buried in conduit.

Ambient operating temperature (ranges):

- Minimum: -30 °C (static - without exposure to movement, mechanical damages, shocks, or vibrations).
- Maximum: +50 °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 the cable in a heated room), in order 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.

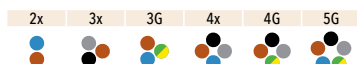
Maximum pulling force:

- 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: $F = 3xD^2$ (N). "D" = overall diameter of the cable (mm).

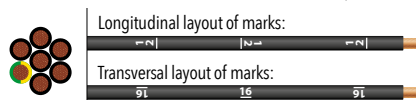
It is assumed that the cable route is well designed for the laying procedure with well-established curves and enough cable rollers (if needed). Special attention shall be paid to the required minimum bending radius.

Identification: Oversheath colour → Black (92).

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



- Core identification for multiconductor cables (N> 5 cores): EN 50334 (N-1 numbered black cores + G/Y).



- Packaging: Drum/cut to length (03).

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
82180100160	1 x 16	1.0	10.5	215	1.21
82180100250	1 x 25	1.2	12.1	299	0.780
82180100350	1 x 35	1.2	13.3	399	0.554
82180100500	1 x 50	1.4	15.1	572	0.386
82180100700	1 x 70	1.4	16.9	782	0.272
82180100950	1 x 95	1.6	19.0	1008	0.206
82180101200	1 x 120	1.6	20.6	1244	0.161
82180101500	1 x 150	1.8	22.8	1569	0.129
82180101850	1 x 185	2.0	24.8	1853	0.106
82180102400	1 x 240	2.2	28.4	2499	0.0801
82180201-50	2 x 1.5	0.8	9.8	118	13.3
82180202-50	2 x 2.5	0.8	10.6	149	7.98
82180200040	2 x 4	1.0	12.6	194	4.95
82180200060	2 x 6	1.0	13.6	250	3.30
82180200100	2 x 10	1.0	15.4	372	1.91
82180311-50	3 G 1.5	0.8	10.3	132	13.3
82180312-50	3 G 2.5	0.8	11.1	173	7.98
82180310040	3 G 4	1.0	13.2	229	4.95
82180310060	3 G 6	1.0	14.3	304	3.30
82180310100	3 G 10	1.0	16.3	460	1.91
82180411-50	4 G 1.5	0.8	11.1	153	13.3
82180412-50	4 G 2.5	0.8	12.1	210	7.98
82180410040	4 G 4	1.0	14.5	284	4.95
82180410060	4 G 6	1.0	15.7	381	3.30
82180410100	4 x 10	1.0	17.8	576	1.91
82180511-50	5 G 1.5	0.8	12.0	183	13.3
82180512-50	5 G 2.5	0.8	13.1	247	7.98
82180510040	5 G 4	1.0	15.8	340	4.95
82180510060	5 G 6	1.0	17.1	458	3.30
82180510100	5 G 10	1.0	19.5	708	1.91
82180611-50	6 G 1.5	0.8	12.9	232	13.3
82180612-50	6 G 2.5	0.8	14.1	295	7.98
82180711-50	7 G 1.5	0.8	12.9	249	13.3
82180712-50	7 G 2.5	0.8	14.1	316	7.98
82181011-50	10 G 1.5	0.8	16.0	327	13.3
82181012-50	10 G 2.5	0.8	17.6	400	7.98
82181411-50	14 G 1.5	0.8	17.5	462	13.3
82181412-50	14 G 2.5	0.8	19.3	543	7.98
82181711-50	17 G 1.5	0.8	18.9	535	13.3
82181712-50	17 G 2.5	0.8	20.9	631	7.98
82181911-50	19 G 1.5	0.8	19.8	586	13.3
82181912-50	19 G 2.5	0.8	21.9	742	7.98
82182411-50	24 G 1.5	0.8	21.8	690	13.3
82182412-50	24 G 2.5	0.8	24.2	867	7.98
82182711-50	27 G 1.5	0.8	22.9	767	13.3
82182712-50	27 G 2.5	0.8	25.4	943	7.98

* Color and packing codes (standard):

- Black oversheath (92).
- Drum/cut to length (03).

* 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.

BARRYFLEX SHIELD RC4V-K 0.6/1 kV

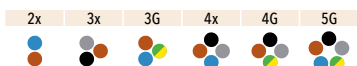
DoP: ME1000RC4VK.

MIGUÉLEZ ARTICLE GROUP

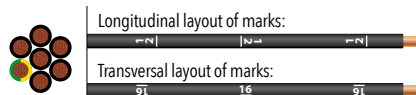
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- **Standards (construction/tests):** UNE 21123-2 and IEC 60502-1.
- **Technical designation:** RC4V-K 0.6/1 kV.
- **Construction:** Conductor: Copper, class 5 / Insulation: XLPE / Shield: Al/PET tape + Cu Sn braid / Oversheath: PVC.
100% shield coverage (Cu Sn braid > 65%). Other shield constructions or materials under request.
- **Rated voltage (Uo/U):** 0.6/1 kV AC.
- **Max. conductor temperature.** Normal operation / short-circuit (t≤5s): 90 °C / 250 °C.
- **Range:** Single-core or multiconductor cable.
Configurations: 1x(1.5...185) mm² / 2x(1.5...50) mm² / 3x or G(1.5...35) mm² / (4-5)x or G(1.5...25) mm² / (6...27)G1.5 mm² / (6...27)G2.5 mm².
Multiconductor cable from 6 to 20. Cross-sectional area= 1.5 / 2.5 mm².
- **Reaction to fire classification (CPR - EN 50575 & EN 13501-6):** Eca.
- **Other fire performance features (when CPR Regulation is not applicable):** Flame retardant (IEC 60332-1-2).
- **Applications****:** Shielded cable suitable for fixed installations that require electromagnetic protection.
Especially designed to be used as a power, command or control cable in industrial plants (≤10 mm² VFD, solenoid valves, regulation...).
Perfect for protecting the cable, nearby signal cables or electronic devices against possible disturbances and interferences.
Suitable for indoor and outdoor (protected from direct UV radiation) installations, on supports (brackets, clamps, cable trays or ladders), in conduits or buried in conduit.
- Ambient operating temperature (ranges):
 - Minimum: -30 °C (static – without exposure to movement, mechanical damages, shocks, or vibrations).
 - Maximum: +50 °C.
- 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., storing the cable in a heated room), in order 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 → Black (92).
- Core identification for multicore cables (From 2 to 5): HD 308 S2.



- Core identification for multiconductor cables (N> 5 cores): EN 50334 (N-1 numbered black cores + G/Y).



- **Packaging:** Drum/cut to length (03).

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
82130100160	1 x 16	0,7	10,2	205	1,21
82130100250	1 x 25	0,9	11,7	285	0,780
82130100350	1 x 35	0,9	13,0	380	0,554
82130100500	1 x 50	1	14,8	545	0,386
82130100700	1 x 70	1,1	16,7	745	0,272
82130100950	1 x 95	1,1	18,2	960	0,206
82130101200	1 x 120	1,2	20,4	1185	0,161
82130101500	1 x 150	1,4	22,4	1495	0,129
82130101850	1 x 185	1,6	24,7	1790	0,106
82130201-50	2 x 1,5	0,7	9,2	113	13,3
82130202-50	2 x 2,5	0,7	10,0	142	7,98
82130200040	2 x 4	0,7	11,2	185	4,95
82130200060	2 x 6	0,7	12,2	239	3,30
82130200100	2 x 10	0,7	14,0	355	1,91
82130200160	2 x 16	0,7	16,2	484	1,21
82130200250	2 x 25	0,9	19,2	708	0,780
82130311-50	3 G 1,5	0,7	9,7	126	13,3
82130312-50	3 G 2,5	0,7	10,5	165	7,98
82130310040	3 G 4	0,7	11,8	219	4,95
82130310060	3 G 6	0,7	12,9	290	3,30
82130310100	3 G 10	0,7	14,8	439	1,91
82130300160	3 x 16	0,7	17,2	625	1,21
82130300250	3 x 25	0,9	20,4	916	0,780
82130411-50	4 G 1,5	0,7	10,4	146	13,3
82130412-50	4 G 2,5	0,7	11,4	200	7,98
82130410040	4 G 4	0,7	12,8	271	4,95
82130410060	4 G 6	0,7	14,0	363	3,30
82130400100	4 x 10	0,7	16,2	549	1,91
82130400160	4 x 16	0,7	18,9	792	1,21
82130400250	4 x 25	0,9	22,5	1175	0,780
82130511-50	5 G 1,5	0,7	11,3	175	13,3
82130512-50	5 G 2,5	0,7	12,4	236	7,98
82130510040	5 G 4	0,7	14,0	324	4,95
82130510060	5 G 6	0,7	15,3	437	3,30
82130510100	5 G 10	0,7	17,8	675	1,91
82130510160	5 G 16	0,7	20,7	972	1,21
82130510250	5 G 25	0,9	24,8	1476	0,780
82130711-50	7 G 1,5	0,7	12,1	238	13,3
82130712-50	7 G 2,5	0,7	13,3	301	7,98
82131011-50	10 G 1,5	0,7	15,0	309	13,3
82131012-50	10 G 2,5	0,7	16,6	378	7,98
82131411-50	14 G 1,5	0,7	16,5	432	13,3
82131412-50	14 G 2,5	0,7	18,3	508	7,98
82131911-50	19 G 1,5	0,7	18,6	538	13,3
82131912-50	19 G 2,5	0,7	20,7	681	7,98
82132411-50	24 G 1,5	0,7	20,5	628	13,3
82132412-50	24 G 2,5	0,7	22,7	789	7,98

* Color and packing codes (standard):
– Black oversheath (92).
– Drum/cut to length (03).

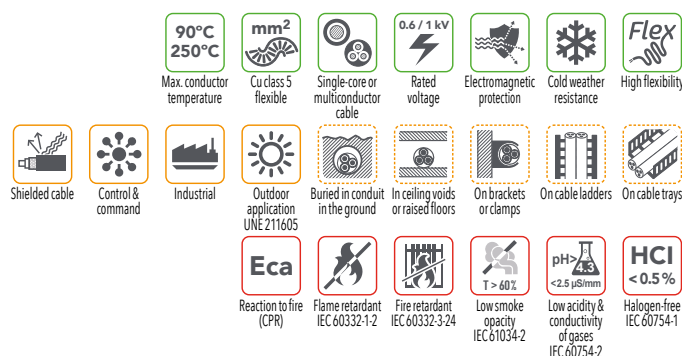
* Short product code. Must be completed with the corresponding characters for 'oversheath colour' and 'packaging'. Check the 'Miguelélez product code' section on our web page, in 'Downloads'.
** Check the CPR-classified range and the range included in the certifications indicated for each product, as 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.

AFIRENAS **SHIELD** RC4Z1-K 0.6/1 kV

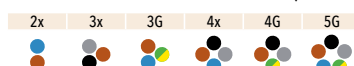
DoP : ME1000RC4Z1K.

MIGUÉLEZ ARTICLE GROUP

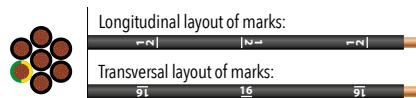
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- **Standard (construction/tests):** IEC 60502-1.
- **Technical designation:** RC4Z1-K 0.6/1 kV.
- **Construction:**
Conductor: Copper, class 5 / Insulation: XLPE / Shield: Al/PET tape + Cu Sn braid / Oversheath: Thermoplastic polyolefin type ST8, LSZH.
100% shield coverage (Cu Sn braid > 65%). Other shield constructions or materials under request.
- **Rated voltage (Uo/U):** 0.6/1 kV AC.
- **Max. conductor temperature. Normal operation / short-circuit (t≤5s):** 90 °C / 250 °C.
- **Range:** Single-core or multiconductor cable.
Configurations: 1x(16-...-185) mm² / 2x(1.5-...-50) mm² / 3x or G(1.5-...-35) mm² / 4x or G(1.5-...-25) mm² / 5G(1.5-...-25) mm² / (6-...-27)G1.5 mm² / (6-...-27)G2.5 mm².
- **Reaction to fire classification (CPR - EN 50575 & EN 13501-6):** Eca.
- **Other fire performance features (when CPR Regulation is not applicable):** Flame retardant, 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, IEC 61034-2).
- **Applications****:** Shielded cable, specially designed to be used as a power, command & control cable in those installations which require electromagnetic protection and a special performance in case of fire.
 Perfect for protecting nearby signal cables or electronic devices against disturbances and interferences or for protecting itself against external disturbances and interferences. Suitable for indoor and outdoor installations (protected from direct UV radiation), on supports (brackets, clamps, cable trays or ladders), in conduits or buried in conduit.
- **Ambient operating temperature (ranges):**
 - Minimum: -30 °C (static - without exposure to movement, mechanical damages, shocks, or vibrations).
 - Maximum: +50 °C.
- **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., storing the cable in a heated room) in order 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 → Green or black (under request).
- **Core identification for multicore cables (From 2 to 5):** HD 308 S2.



- **Core identification for multiconductor cables (N > 5 cores):** EN 50334 (N-1 numbered black cores + G/Y).



- **Packaging:** Drum/cut to length.

Code*	No. of cores & nominal cross-sectional area	Insulation thickness	Overall diameter	Total weight	Maximum electrical resistance at 20°C (DC)
	mm ²	mm	mm	kg/km	Ω/km
82140100160	1 x 16	0.7	10.2	210	1.21
82140100250	1 x 25	0.9	11.7	300	0.780
82140100350	1 x 35	0.9	12.7	390	0.554
82140100500	1 x 50	1	14.5	550	0.386
82140100700	1 x 70	1.1	16.5	758	0.272
82140100950	1 x 95	1.1	18.0	973	0.206
82140101200	1 x 120	1.2	19.9	1205	0.161
82140101500	1 x 150	1.4	22.0	1516	0.129
82140101850	1 x 185	1.6	24.0	1780	0.106
82140102400	1 x 240	1.7	26.6	2405	0.0801
82140201-50	2 x 1.5	0.7	10.0	118	13.3
82140202-50	2 x 2.5	0.7	10.8	148	7.98
82140200040	2 x 4	0.7	12.0	193	4.95
82140200060	2 x 6	0.7	13.0	249	3.30
82140200100	2 x 10	0.7	14.8	270	1.91
82140200160	2 x 16	0.7	16.8	504	1.21
82140200250	2 x 25	0.9	19.8	737	0.780
82140311-50	3 G 1.5	0.7	10.4	132	13.3
82140312-50	3 G 2.5	0.7	11.3	172	7.98
82140310040	3 G 4	0.7	12.5	228	4.95
82140310060	3 G 6	0.7	13.6	302	3.30
82140310100	3 G 10	0.7	15.5	457	1.91
82140300160	3 x 16	0.7	17.7	651	1.21
82140300250	3 x 25	0.9	20.9	954	0.780
82140411-50	4 G 1.5	0.7	11.2	152	13.3
82140412-50	4 G 2.5	0.7	12.2	209	7.98
82140410040	4 G 4	0.7	13.6	282	4.95
82140410060	4 G 6	0.7	14.8	378	3.30
82140400100	4 x 10	0.7	17.0	572	1.91
82140400160	4 x 16	0.7	19.4	824	1.21
82140400250	4 x 25	0.9	23.0	1223	0.780
82140511-50	5 G 1.5	0.7	12.0	183	13.3
82140512-50	5 G 2.5	0.7	13.1	246	7.98
82140510040	5 G 4	0.7	14.7	338	4.95
82140510060	5 G 6	0.7	16.1	455	3.30
82140510100	5 G 10	0.7	18.5	703	1.91
82140510160	5 G 16	0.7	21.2	1012	1.21
82140510250	5 G 25	0.9	25.3	1536	0.780
82140711-50	7 G 1.5	0.7	12.1	245	13.3
82140712-50	7 G 2.5	0.7	13.3	325	7.98
82141011-50	10 G 1.5	0.7	15.0	315	13.3
82141012-50	10 G 2.5	0.7	16.6	390	7.98
82141411-50	14 G 1.5	0.7	16.5	450	13.3
82141412-50	14 G 2.5	0.7	18.3	515	7.98
82141911-50	19 G 1.5	0.7	18.6	561	13.3
82141912-50	19 G 2.5	0.7	20.7	697	7.98

* 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.

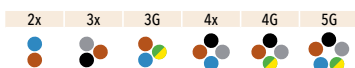
AFIRENAS SHIELD Z1C4Z1-K (AS) 0.6/1 kV

DoP : MC1000Z1C4Z1K. MIGUÉLEZ ARTICLE GROUP
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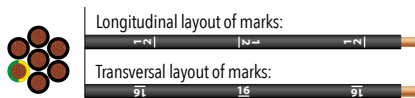
Fire retardant, halogen-free
and low gas and smoke
emission with low opacity

IEC 60332-1-2
IEC 60332-3-24
IEC 60754-1
IEC 60754-2
IEC 61034-2

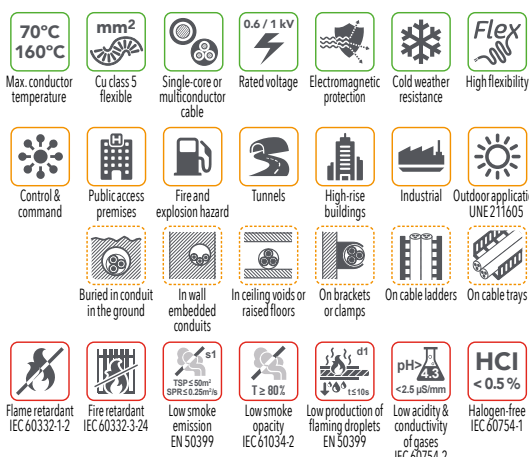
- **Standard (construction/tests):** IEC 60502-1 (Special construction based on standard IEC 60502-1).
- **Technical name:** Z1C4Z1-K (AS) 0.6/1 kV.
- **Construction:**
 Conductor: Copper, class 5 / Insulation: Thermoplastic polyolefin LSZH / Shield: Al/PET tape + Cu Sn braid /
 Oversheath: Thermoplastic polyolefin LSZH.
 100% shield coverage (Cu Sn braid > 65%). Other shield constructions or materials under request.
- **Rated voltage (Uo/U):** 0.6/1 kV AC.
- **Max. conductor temperature. Normal operation / short-circuit (t≤5s):** 70°C / 160°C.
- **Range:** Single-core or multiconductor cable.
 Configurations: 1x(1.5...240) mm² / 2x(1.5...25) mm² / 3x or 3G(1.5...25) mm² / 4x or 4G(1.5...25) mm²
 5G(1.5...25) mm² / (6...23)G1.5 mm² / (6...25)G2.5 mm².
- **Reaction to fire classification (CPR - EN 50575 & EN 13501-6):** Cca-s1a,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****:** Shielded cable, specially designed to be used in those installations which require electromagnetic protection and a special performance in case of fire. Especially designed as a power, command or control cable in tunnels, public access premises or locations with fire and explosion hazard. Perfect for protecting nearby signal cables or electronic devices against disturbances and interferences or for protecting itself against external disturbances and interferences. Suitable for indoor and outdoor installations (protected from direct and permanent UV radiation), on supports (brackets, clamps, cable trays or ladders), in conduits or buried in conduit.
 - Ambient operating temperature (ranges):
 - Minimum: -30 °C (static - without exposure to movement, mechanical damages, shocks, or vibrations).
 - Maximum: +50 °C.
 - 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., storing the cable in a heated room) in order 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 → Green.
 - Core identification for multicore cables (From 2 to 5): HD 308 S2.



- Core identification for multiconductor cables (N > 5 cores): EN 50334 (N-1 numbered black cores + G/Y).



- **Packaging:** Drum/cut to length.



Code*	No. of cores & nominal cross-sectional area	Insulation thickness	Overall diameter	Total weight	Maximum electrical resistance at 20°C (DC)
	mm ²	mm	mm	kg/km	Ω/km
82150101-50	1 x 1.5	0.8	6.7	67	13.3
82150102-50	1 x 2.5	0.8	7.1	79	7.98
82150100040	1 x 4	1.0	8.1	107	4.95
82150100060	1 x 6	1.0	8.6	131	3.30
82150100100	1 x 10	1.0	9.5	178	1.91
82150100160	1 x 16	1.0	10.5	238	1.21
82150100250	1 x 25	1.2	12.0	334	0.780
82150100350	1 x 35	1.2	13.3	433	0.554
82150100500	1 x 50	1.4	15.1	591	0.386
82150100700	1 x 70	1.4	17.1	798	0.272
82150100950	1 x 95	1.6	19.0	1033	0.206
82150101200	1 x 120	1.6	20.9	1283	0.161
82150101500	1 x 150	1.8	23.0	1573	0.129
82150101850	1 x 185	2.0	25.2	1903	0.106
82150102400	1 x 240	2.2	28.0	2469	0.0801
82150201-50	2 x 1.5	0.8	9.8	128	13.3
82150202-50	2 x 2.5	0.8	10.6	154	7.98
82150200040	2 x 4	1.0	12.8	210	4.95
82150200060	2 x 6	1.0	14.4	262	3.30
82150200100	2 x 10	1.0	16.2	402	1.91
82150200160	2 x 16	1.0	18.2	530	1.21
82150200250	2 x 25	1.2	21.4	748	0.780
82150311-50	3 G 1.5	0.8	10.2	138	13.3
82150312-50	3 G 2.5	0.8	11.1	182	7.98
82150310040	3 G 4	1.0	13.4	250	4.95
82150310060	3 G 6	1.0	15.1	322	3.30
82150300100	3 x 10	1.0	17.0	504	1.91
82150310100	3 G 10	1.0	17.0	504	1.91
82150300160	3 x 16	1.0	19.2	698	1.21
82150300250	3 x 25	1.2	22.6	978	0.780
82150401-50	4 x 1.5	0.8	11.1	150	13.3
82150411-50	4 G 1.5	0.8	11.1	150	13.3
82150402-50	4 x 2.5	0.8	12.0	224	7.98
82150412-50	4 G 2.5	0.8	12.0	224	7.98
82150410040	4 x 4	1.0	14.6	308	4.95
82150410040	4 G 4	1.0	14.6	308	4.95
82150400060	4 x 6	1.0	16.5	415	3.30
82150410060	4 G 6	1.0	16.5	415	3.30
82150400100	4 x 10	1.0	18.6	628	1.91
82150400160	4 x 16	1.0	21.0	852	1.21
82150400250	4 x 25	1.2	24.8	1288	0.780
82150511-50	5 G 1.5	0.8	12.0	192	13.3
82150512-50	5 G 2.5	0.8	13.1	255	7.98
82150510040	5 G 4	1.0	16.0	268	4.95
82150510060	5 G 6	1.0	17.9	482	3.30
82150510100	5 G 10	1.0	20.3	750	1.91
82150510160	5 G 16	1.0	23.0	1065	1.21
82150510250	5 G 25	1.2	27.3	1602	0.780
82150611-50	6 G 1.5	0.8	12.9	224	13.3
82150612-50	6 G 2.5	0.8	14.1	289	7.98
82150711-50	7 G 1.5	0.8	12.9	245	13.3
82150712-50	7 G 2.5	0.8	14.1	319	7.98
82150811-50	8 G 1.5	0.8	14.1	275	13.3
82150812-50	8 G 2.5	0.8	15.5	359	7.98
82150911-50	9 G 1.5	0.8	14.8	300	13.3
82150912-50	9 G 2.5	0.8	16.2	394	7.98
82151011-50	10 G 1.5	0.8	16.0	330	13.3
82151012-50	10 G 2.5	0.8	17.6	435	7.98
82151111-50	11 G 1.5	0.8	16.0	350	13.3
82151112-50	11 G 2.5	0.8	17.6	464	7.98
82151211-50	12 G 1.5	0.8	16.5	375	13.3
82151212-50	12 G 2.5	0.8	18.1	499	7.98
82151311-50	13 G 1.5	0.8	17.0	401	13.3
82151312-50	13 G 2.5	0.8	18.7	536	7.98
82151411-50	14 G 1.5	0.8	17.5	426	13.3
82151412-50	14 G 2.5	0.8	19.3	570	7.98
82151511-50	15 G 1.5	0.8	18.0	451	13.3
82151512-50	15 G 2.5	0.8	19.9	604	7.98
82151611-50	16 G 1.5	0.8	18.5	477	13.3
82151612-50	16 G 2.5	0.8	20.4	640	7.98
82151711-50	17 G 1.5	0.8	18.9	504	13.3
82151712-50	17 G 2.5	0.8	20.9	677	7.98
82151811-50	18 G 1.5	0.8	19.4	528	13.3
82151812-50	18 G 2.5	0.8	21.4	711	7.98
82151911-50	19 G 1.5	0.8	19.8	553	13.3
82151912-50	19 G 2.5	0.8	21.9	745	7.98
82152011-50	20 G 1.5	0.8	20.2	577	13.3
82152012-50	20 G 2.5	0.8	22.4	779	7.98
82152111-50	21 G 1.5	0.8	20.8	611	13.3
82152112-50	21 G 2.5	0.8	23.0	823	7.98
82152211-50	22 G 1.5	0.8	21.2	637	13.3
82152212-50	22 G 2.5	0.8	23.5	858	7.98
82152311-50	23 G 1.5	0.8	21.6	660	13.3
82152312-50	23 G 2.5	0.8	23.9	891	7.98
82152412-50	24 G 2.5	0.8	24.4	925	7.98
82152512-50	25 G 2.5	0.8	24.8	958	7.98

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