

SY LSZH Control Flexible Cable



Eland Product Group: A5E

APPLICATION

Used as interconnecting cable for measuring, controlling or regulation in control equipment for assembly and production lines, conveyors and for computer units. Suitable for flexible use in conditions of light mechanical stress. Can be used outdoors when protected against direct sunlight, and in dry or moist conditions indoors. The braided screen offers mechanical protection and a level of electro-magnetic shielding. The galvanized coating helps protect against corrosion. For installations where fire, smoke emissions and toxic fumes create a potential risk to life and equipment.

CHARACTERISTICS

Voltage Rating (U_o/U)
300/500V

Temperature Rating
-15°C to +70°C

Minimum Bending Radius
10 x overall diameter

CONSTRUCTION

Conductor
Class 5 flexible copper conductor

Insulation
LSZH (Low Smoke Zero Halogen) Type T16

Bedding
LSZH (Low Smoke Zero Halogen) Type TM7

Braiding
GSWB (Galvanized Steel Wire Braid) minimum coverage of braiding shall be 50%

Sheath
LSZH (Low Smoke Zero Halogen) Type TM7

Core Identification
2 core: ● Blue ● Brown
3 core: ● Blue ● Brown ● Green/Yellow
4 core: ● Brown ● Black ● Grey ● Green/Yellow
5 core: ● Blue ● Brown ● Black ● Grey ● Green/Yellow

Sheath Colour
● Black

Note
SY Cables are not suitable for direct connection into the main service fuse.

STANDARDS

Flame Retardant according to BS EN/IEC 60332-1-2,
BS EN/ IEC 60332-3-24
Low Smoke Zero Halogen according to BS EN / IEC 61034-1
Determination of the halogen acid gas content:
BS EN IEC 60574-1
Determination of acidity and conductivity: BS EN / IEC 60574-2
Determination of the halogen acid gas content:
BS / EN IEC 60754-1

bsi.

UK LABORATORY TESTED

This product is subject to the Quality Assurance protocols of The Cable Lab[®], a UKAS accredited ISO 17025 cable testing laboratory. Testing includes vertical flame, conductor resistance, tensile & elongation, and dimensional consistency, verified to published standards and approved product drawings.



REGULATORY COMPLIANCE

This cable meets the requirements of the Low Voltage Directive 2014/35/EU and the RoHS Directive 2011/65/EU. RoHS compliance has been tested and confirmed by The Cable Lab[®] as meeting the requirements of the BSI RoHS Trusted Kitemark[™].



DIMENSIONS

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	NOMINAL THICKNESS OF INSULATION mm	NOMINAL THICKNESS OF BEDDING mm	NOMINAL DIAMETER OF GSWB mm	NOMINAL DIAMETER OF SHEATH mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
A5E2015	2	1.5	0.5	0.5	0.24	0.8	8	109
A5E3010	3	1	0.5	0.5	0.24	1	8	114
A5E3015	3	1.5	0.5	0.5	0.24	1	9	138
A5E3025	3	2.5	0.6	0.5	0.24	1	10	188
A5E3040	3	4	0.6	0.6	0.24	1	12	256
A5E3060	3	6	0.7	0.6	0.24	1.1	14	352
A5E4015	4	1.5	0.5	0.5	0.24	1	10	161
A5E4025	4	2.5	0.6	0.5	0.24	1	11	223
A5E4040	4	4	0.6	0.6	0.24	1	13	310
A5E4060	4	6	0.7	0.6	0.24	1.1	15	430
A5E5015	5	1.5	0.5	0.5	0.24	1	10	189
A5E5025	5	2.5	0.6	0.6	0.24	1	12	264
A5E5060	5	6	0.7	0.6	0.24	1.2	16	523
A5E510	5	10	0.8	0.8	0.3	1.2	20	822
A5E516	5	16	0.9	0.8	0.3	1.4	24	1217

CONDUCTORS

Class 2 Stranded Conductors for Single Core and Multi-Core Cables

NOMINAL CROSS SECTIONAL AREA mm ²	MAXIMUM DIAMETER OF WIRES IN CONDUCTOR mm	MAXIMUM RESISTANCE OF CONDUCTOR AT 20°C ohms/km
		Plain Wires
1	0.21	19.5
1.5	0.26	13.3
2.5	0.26	7.98
4	0.31	4.95
6	0.31	3.3
10	0.41	1.91
16	0.41	1.21

The above table is in accordance with BS EN 60228 (previously BS 6360)

ELECTRICAL CHARACTERISTICS

Current Carrying Capacity at 30°C

NOMINAL CROSS SECTIONAL AREA mm ²	CURRENT CARRYING CAPACITY Amps	
	In Conduit	In Air
1	12	20
1.5	15	24
2.5	20	32
4	25	42
6	33	54
10	45	73
16	61	98

VOLTAGE DROP

NOMINAL CROSS SECTIONAL AREA mm ²	TWO CORE CABLE DC mV/A/m	SINGLE-PHASE TWO CORE CABLE AC mV/A/m	THREE-PHASE THREE OR FOUR CORE CABLE AC mV/A/m
1	44	44	38
1.5	29	29	25
2.5	18	18	15
4	11	11	9.5
6	7.3	7.3	6.4
10	4.4	4.4	3.8
16	2.8	2.8	2.4

DE-RATING FACTORS

NO. OF CORES	5	7	10	14	19	24	44	48
DE-RATING FACTOR	0.72	0.63	0.56	0.51	0.45	0.42	0.34	0.33

The information contained within this datasheet is for guidance only and is subject to change without notice or liability. All the information is provided in good faith and is believed to be correct at the time of publication. When selecting cable accessories, please note that actual cable dimensions may vary due to manufacturing tolerances.