

# 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<sub>0</sub>/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 TI6

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

## THE CABLE LAB<sup>®</sup>

AN ISO/IEC 17025 AND IEC/IEE CBTL ACCREDITED FACILITY

Our world-class testing facility assures the quality and compliance of this cable through a continuous and rigorous testing regime.



## SUSTAINABILITY COMMITMENT

We are on a journey to Net Zero.

We've committed to near-term emissions reductions and a net-zero target with the Science Based Targets initiative and we're a signatory to the United Nations Global Compact Sustainable Development Goals.

Learn more about embodied carbon and our carbon emissions reduction actions, our comprehensive recycling services, and wider ESG activities for sustainable operations at: [www.elandcables.com/company/about-us/esg-sustainability](https://www.elandcables.com/company/about-us/esg-sustainability)



## REGULATORY COMPLIANCE

This cable is compliant with European Regulation EN 50575, the Construction Products Regulation.



This cable meets the requirements of the Low Voltage Directive 2014/35/EU, the RoHS Directive 2015/65/EU and Reach Directive EC 1907/2006. RoHS compliance has been tested and confirmed by The Cable Lab<sup>®</sup>.





## DIMENSIONS

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	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 <sup>2</sup>	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 <sup>2</sup>	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 <sup>2</sup>	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.