

# APL Overall Screened Armoured Instrumentation



Eland Product Group: ENA

## APPLICATION

For interconnections between instruments, sensors and monitors. Overall screened with specially selected lay schemes in order to counter static and cross talk noises. A “clean” and accurate signal can therefore be expected to be transferred. APL Armouring is provided for increased mechanical protection.

## CHARACTERISTICS

### Voltage Rating

300/500V

### Maximum Operating Temperature

+105°C

### Minimum Bending Radius

9x Overall Diameter

## CONSTRUCTION

### Conductor

Stranded annealed bunched copper

### Insulation

XLPE (Cross-Linked Polyethylene)

### Overall Screen

Al/PET (Aluminium/Polyester Tape)

### Drain Wire

Tinned copper

### Bedding

PVC (Polyvinyl Chloride)

### Armouring

APL (Aluminium Polyethylene Laminated) with bunched tinned copper drain wire

### Sheath

PE (Polyethylene)

### Core Identification

Pairs: ○ White ● Black, numbered

Triples: ○ White ● Black ● Red, numbered

### Outer Sheath Colour

● Black

## STANDARDS

SANS 1411 Part 4, SANS 1411 Part 2 Type B1, SANS 1411 Part 7

## THE CABLE LAB®

AN ISO/IEC 17025 AND IECCE 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](http://www.elandcables.com/company/about-us/esg-sustainability)



## REGULATORY COMPLIANCE

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®.





## DIMENSIONS

| ELAND PART NO. | NO. OF<br>PAIRS/TRIPLE | NOMINAL CROSS SECTIONAL<br>AREA<br>mm <sup>2</sup> | NOMINAL OVERALL DIAMETER<br>mm | NOMINAL WEIGHT<br>kg/km |
|----------------|------------------------|----------------------------------------------------|--------------------------------|-------------------------|
| ENA01P05CAPEBK | 1P                     | 0.5                                                | 9.4                            | 90                      |
| ENA01P10CAPEBK | 1P                     | 1                                                  | 10.2                           | 111                     |
| ENA01P15CAPEBK | 1P                     | 1.5                                                | 11                             | 128                     |
| ENA02P05CAPEBK | 2P                     | 0.5                                                | 12.7                           | 153                     |
| ENA02P10CAPEBK | 2P                     | 1                                                  | 14.6                           | 205                     |
| ENA02P15CAPEBK | 2P                     | 1.5                                                | 16.2                           | 248                     |
| ENA04P05CAPEBK | 4P                     | 0.5                                                | 14.4                           | 203                     |
| ENA04P10CAPEBK | 4P                     | 1                                                  | 16.2                           | 265                     |
| ENA04P15CAPEBK | 4P                     | 1.5                                                | 18.4                           | 354                     |
| ENA08P05CAPEBK | 8P                     | 0.5                                                | 17.1                           | 287                     |
| ENA08P10CAPEBK | 8P                     | 1                                                  | 20.3                           | 428                     |
| ENA08P15CAPEBK | 8P                     | 1.5                                                | 22.8                           | 535                     |
| ENA12P05CAPEBK | 12P                    | 0.5                                                | 20                             | 384                     |
| ENA12P10CAPEBK | 12P                    | 1                                                  | 22.9                           | 557                     |
| ENA12P15CAPEBK | 12P                    | 1.5                                                | 26.3                           | 730                     |
| ENA16P05CAPEBK | 16P                    | 0.5                                                | 21.7                           | 471                     |
| ENA16P10CAPEBK | 16P                    | 1                                                  | 25.3                           | 706                     |
| ENA16P15CAPEBK | 16P                    | 1.5                                                | 29.4                           | 943                     |
| ENA24P05CAPEBK | 24P                    | 0.5                                                | 24.5                           | 629                     |
| ENA24P10CAPEBK | 24P                    | 1                                                  | 28.6                           | 949                     |
| ENA24P15CAPEBK | 24P                    | 1.5                                                | 33                             | 1256                    |
| ENA01T05CAPEBK | 1T                     | 0.5                                                | 9.7                            | 100                     |
| ENA01T10CAPEBK | 1T                     | 1                                                  | 10.5                           | 126                     |
| ENA01T15CAPEBK | 1T                     | 1.5                                                | 11.4                           | 148                     |
| ENA04T05CAPEBK | 4T                     | 0.5                                                | 15.6                           | 244                     |
| ENA04T10CAPEBK | 4T                     | 1                                                  | 18.4                           | 357                     |
| ENA04T15CAPEBK | 4T                     | 1.5                                                | 20.6                           | 442                     |
| ENA08T05CAPEBK | 8T                     | 0.5                                                | 19.8                           | 392                     |
| ENA08T10CAPEBK | 8T                     | 1                                                  | 22.5                           | 554                     |
| ENA08T15CAPEBK | 8T                     | 1.5                                                | 26                             | 726                     |
| ENA12T05CAPEBK | 12T                    | 0.5                                                | 23                             | 512                     |
| ENA12T10CAPEBK | 12T                    | 1                                                  | 26.7                           | 773                     |
| ENA12T15CAPEBK | 12T                    | 1.5                                                | 31.4                           | 1036                    |
| ENA16T05CAPEBK | 16T                    | 0.5                                                | 25.4                           | 646                     |
| ENA16T10CAPEBK | 16T                    | 1                                                  | 30                             | 990                     |
| ENA24T05CAPEBK | 24T                    | 0.5                                                | 31.1                           | 919                     |

## ELECTRICAL CHARACTERISTICS

| NOMINAL CROSS<br>SECTIONAL AREA<br>mm <sup>2</sup> | MAXIMUM DC RESISTANCE OF CONDUCTOR AT 20°C<br>ohms/km |                  | NOMINAL MUTUAL<br>CAPACITANCE<br>nF/km | NOMINAL GROUND<br>CAPACITANCE<br>nF/km | NOMINAL<br>INDUCTANCE<br>mH/km |
|----------------------------------------------------|-------------------------------------------------------|------------------|----------------------------------------|----------------------------------------|--------------------------------|
|                                                    | Single Pair/Triad & Multicore                         | Multi-Pair Triad |                                        |                                        |                                |
| 0.5                                                | 39.0                                                  | 39.6             | 100                                    | 200                                    | 0.707                          |
| 1                                                  | 19.5                                                  | 19.8             | 120                                    | 240                                    | 0.629                          |
| 1.5                                                | 13.3                                                  | 13.5             | 120                                    | 240                                    | 0.645                          |



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CABLES

## CAPACITANCE

| NOMINAL CROSS<br>SECTIONAL AREA<br>mm <sup>2</sup> | CAPACITANCE<br>pF/m |         |
|----------------------------------------------------|---------------------|---------|
|                                                    | Nominal             | Maximum |
| Core / Core Screened                               |                     |         |
| 0.5                                                | 84                  | 90      |
| 1.0                                                | 104                 | 112     |
| 1.5                                                | 101                 | 121     |
| Core / Screen                                      |                     |         |
| 0.5                                                | 158                 | 169     |
| 1.0                                                | 196                 | 210     |
| 1.5                                                | 190                 | 228     |
| Core / Core No Screen                              |                     |         |
| 0.5                                                | 53                  | 56      |
| 1.0                                                | 63                  | 66      |
| 1.5                                                | 61                  | 70      |
| Core / Screen OS only                              |                     |         |
| 0.5                                                | 100                 | 106     |
| 1.0                                                | 119                 | 124     |
| 1.5                                                | 115                 | 131     |

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.