

## DATAGREEN®

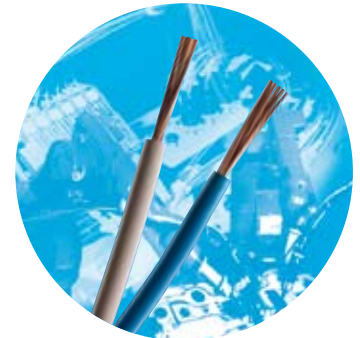
### For electronics and low-energy lighting

#### 25% smaller, 50% lighter, and easier to install

DATAGREEN®, a new family of Nexans data/sensor cables, is ideal for controlling electronics, machinery and complex industrial equipment; and measuring physical quantities (temperature, pressure, light, position, vibration, etc.). It can also provide low-voltage power for energy-efficient Compact Fluorescent Lights (CFLs) and Light Emitting Diodes (LEDs).

Traditionally, pure copper was used as an electric conductor to achieve high tensile strength for safe pulling and installation operations. A larger cross-section of copper was used than actually needed.

By substituting this new alloy for pure copper, DATAGREEN® can fully satisfy your needs, while achieving significant gains in weight, volume and installation time.



#### What you expect from a data/sensor/low-voltage cable

You are an Original Equipment Manufacturer requiring data or sensor cables to assure the efficient operation of your equipment, whether machines, instruments, electronic devices, generators, cranes, control and management systems, or assembly-line robots. Or, you are concerned with finding a cheaper and more flexible way of lighting a hotel, office, retail outlet, city street, or airport using the latest CFL/LED lighting technologies. You are looking for an alternative to copper which can meet the same performance criteria while offering clear advantages.

#### DATAGREEN® gives you:

- **Compactness:** over a third smaller than standard data and sensor cables; it goes around tight corners and fits into confined spaces
- **Lightness:** half the weight of standard cables which makes it easier to handle; also achieves energy savings in many applications
- **High tensile strength:** both for pulling into position, and also during operational life
- **Easy and rapid installation:** flexibility and seven-core layout makes it less vulnerable to breakage; often eliminates the need for costly cable redundancy
- **Environmental-friendliness:** optimizes production efficiency; saves energy; available in zero-halogen versions for optimum public and equipment safety; fully recyclable
- **Longevity and robustness,** whatever the application
- **Crimpability:** at least equal to copper

DATAGREEN® 0.35 mm<sup>2</sup> can replace copper from 0.6 to 0.93 mm<sup>2</sup>

Parameters	DATAGREEN® 0.35 mm <sup>2</sup>	Advantages compared to copper 0.75 mm <sup>2</sup>
Core material	Alloy	Copper
Number of wires	7	Standard
Single wire diameter mm	0.25	Standard
Electrical conductor resistance (at 20°C) Ω/km	60	
Tensile strength N	200	20% stronger
Conductor diameter mm	0.75	33% smaller
Insulator thickness mm	0.28	Standard
Cable diameter mm	1.35	25% smaller
Weight of conductor Kg/km	3.1	55% lighter
Cable weight Kg/km	4.6	50% lighter

DATAGREEN® 0.22 mm<sup>2</sup> can replace copper from 0.35 mm<sup>2</sup> to 0.5 mm<sup>2</sup>

Parameters	DATAGREEN® 0.22 mm <sup>2</sup>	Advantages compared to copper 0.50 mm <sup>2</sup>
Core material	Alloy	Copper
Number of wires	7	Standard
Single wire diameter mm	0.2	Standard
Electrical conductor resistance (at 20°C) Ω/km	100	
Tensile strength N	120	20% stronger
Conductor diameter mm	0.60	33% smaller
Insulator thickness mm	0.30	Standard
Cable diameter mm	1.2	25% smaller
Weight of conductor Kg/km	2.1	55% lighter
Cable weight Kg/km	3.5	50% lighter

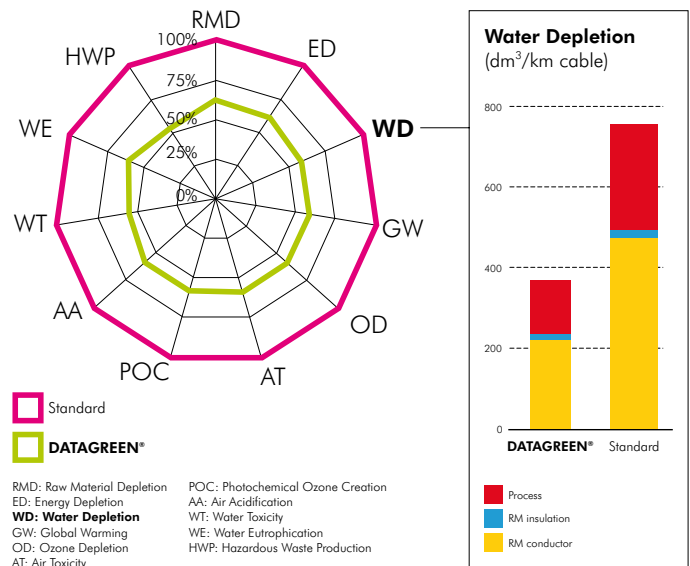
### Life Cycle Assessment of the DATAGREEN® cable

Nexans is involved in the fight against global warming and pollution. DATAGREEN® has been developed with regards to the Life Cycle Assessment (LCA). LCA is a process to quantify some environmental aspects of a product or system through all stages of its life cycle. Life cycle of product embraces all of the activities from making, transporting, using to disposing. The typical Life Cycle consists of a series of stages from extraction of raw materials, through design and formulation, processing, manufacturing, packaging, distribution, use, re-use, recycling and ultimately to waste disposal.



### Comparison of the environmental impact of DATAGREEN® and standard cables

DATAGREEN® has a lower impact on the environment compared to the current copper cable. DATAGREEN® use far less materials. The 10 indicators including the three most important (Global Warming, Energy Depletion and Water Depletion) are improved by 50%. A major progress for the environment.



### Comparison of a 0.22 mm² DATAGREEN® vs. 0.5 mm² copper

For further information: [electronic.products@nexans.com](mailto:electronic.products@nexans.com)

All drawings, specifications, plans and details concerning weight, size and dimensions in Nexans technical or commercial documents are of an indicative nature only, and are not binding on Nexans, who reserves the right to modify its products.