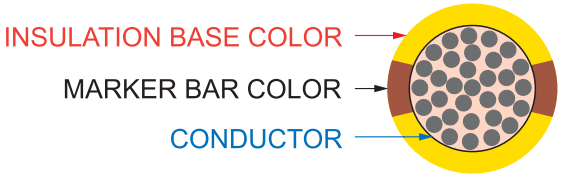
VEGA-TRONIK Commercial Office
01-910 Warszawa / POLAND ul. Lekka 3
tel. +48 22 817 80 80 / fax +48 22 817 80 81
biuro1@vega-tronik.pl / www.vega-tronik.eu

# TECHNICAL SPECIFICATION & PRODUCT DESCRIPTION

## Single wire LGY / H05V-K 1,00 mm² 100 m Color: Yellow / Brown

The offered wire has a flexible, multi-stranded conductor with a cross-section of **1,00 mm²** insulated with new generation polyvinite PVC. Thanks to its outstanding performance, it is a great choice for any professional who relies on excellent quality, reliability and convenience of use. This flexible, well-laying, resistant to surrounding conditions and user-oriented product is ideal for even the most advanced production projects and any assembly, service and hobby work.




### Wire technical parameters :

| | |
|---|---|
| Product normative classification mark | **LGY / H05V-K PRO Series** |
| Nominal conductor cross-sectional area | **1,00 mm² CSA** |
| Wire conductor size in AWG inch system | **AWG 17** |
| Manufacturer product number BQ MPN | **LGY1.0-YL/BR** |
| Structure of twisted multi-stranded conductor | **32 x ∅ 0,20 mm** |
| Construction of the conductive conductor | **Regularly twisted wire strands** |
| Conductive conductor material | **Copper Cu** |
| Conductor resistance at T = 20°C | max.**18,5** ÷ min.**17,0 mΩ/m** |
| Conductor insulation material | **Modified polyvinite PVC** |
| Outer diameter of wire | ∅ **2,1 mm** ± 0,05 |
| Type of color insulation | **Basic color with colored marker strips** |
| RAL code number - base color of wire insulation | RAL 1021 **Yellow** |
| RAL code number - insulation marker bar color | RAL 8003 **Brown** |
| Approximate net weight of wire | **11,8 kg/km** |
| Copper index – conductor net weight | **9,60 kg/km** |
| Resistance to vibration, oscilation, overload | **YES** |
| Resistance to lubricants and chemical agents | **YES** |
| Resistance to flame propagation | **YES / Self - extinguishing type Eca** |
| Method of electrical assembly and connecting | **Crimping, Soldering, Twisting** |
| Permissible current load of the wire | **10 A** (max. **11,5 A**) |
| Long-term current capacity of the wire | **6,3 A** |
| Maximum wire operating voltage | **500 V** |

| | |
|---|---|
| • Nominal working voltage $U_o$ / U | **300 V / 500 V** |
| • Breakdown voltage of the insulation | **> 8,5 kV** |
| • Operating temperature range of the wire | **-40°C ÷ +105°C** (max. **+120°C**) |
| • Length of wire section in package | **100 meters** |
| • Approximate gross weight of the package | **1,28 kg** |
| • Single wire packaging system | **Evenly wound on the spool** |
| • Packaging material and dimensions - spools | **ABS ∅ = 132 mm / H = 57 mm** |
| • Packaging logistical security | **Thermo - shrinkable POF film cover** |

## We guarantee constant availability of items in stock and immediate shipping !

Single wires **LGY 300V/500V / H05V-K** with the **BQ** logo are completely manufactured in **EU** and not only guarantee the highest global product quality and the latest production technologies, taking into account environmental protection, but also ensure comfort of use and savings resulting from reliability.

Thanks to the use of the highest quality copper, with specially increased purity in regularly twisted conductor strands with cross sections of **0,35 mm²**, **0,50 mm²**, **0,75 mm²**, **1,00 mm²**, **1,50 mm²** and **2,50 mm²** and their appropriate construction, the **LGY / H05V-K** wires supplied by **BQ** guarantee almost lossless transmission of sent signal or current, significant facilitation of soldered, twisted, welded, terminal blocks screwed and connectors crimped assembly, resistance to vibrations and oscillations as well as exceptional softness, ease of bending and flexibility.

**BQ** new generation of modified polyvinite insulation is specially thinned to guarantee a smaller outer diameter of the wire with the same cross-sectional area of conductive conductor and while maintaining all dielectric parameters and operating voltage up to **500 V**. This allows for better planning of electrical harnesses and more efficient use of cable glands. This is possible thanks to the increased physicochemical properties of insulation, which further makes offered wires perfectly cope with the surrounding conditions and aggressive chemical agents. The insulation is extremely smooth and glossy, is not absorbent, does not harden and does not crumble, and allows an unprecedented operating temperature in the wide range from **-40°C** up to **+105°C** (max. **+120°C**). This increased thermal range also reduces installation time and significantly decreases the risk of insulation melting when making high-current soldered connections or encapsulating connections with heat shrink covers or tubes. Additionally series of new generation multi-pin connectors requires using wires in thinned insulation, since wires of standard thickness are too thick and unable to fit in dense array of contact fields, covers or cable glands.

A very wide range of plain color insulations and a huge selection of two-color variety types in the form of a basic color with marker strips allows significant savings in wire marking systems in multi-wire harnesses, eliminates the need for cable markers use and allows quick identification of a given wire along the entire length of the harness, even in hard-to-reach places. This makes service jobs or modernization works simpler and easier to do. Common use of single wires with bicolor insulation in industrial and automotive applications, electronic, electric and electro-energetic devices is strongly recommended in **EU**, as specified in the amendments to the normative documents of European legislation, allowing the use of multi-colored combinations of wires insulation, based on their basic colors as specified in **IEC 60445** and **IEC 60446** standards.

The wires are supplied in sections of **200 m**, **100 m** or **50 m** depending on wire cross section, and wound on fully recyclable, convenient to use and drop-proof ABS plastic spools with outer diameter of **∅ = 132 mm** with an internal guide hole **∅ = 26 mm**, which allows you to increase the comfort of work, eliminates the problem of finding the end of the wire or laboriously untangling it after an uncontrolled unwinding. It greatly accelerates and facilitates the execution of multi-wire harnesses, because it is enough to put spools with a fixed number of wires on one guide rod and pull them all together and, as you develop, connect them into a bundle with the appropriate adhesive electrical insulation tape or PET fleece wire harness tape, self-clamping cable ties or passing them through the cable protection corrugated conduit. **BQ** equips all spools with a seal confirming that the product has passed a quality test, along with an end marker to make it easy to quickly find the beginning of the wire section and packs them in a sealed cover made of transparent shrink film, which allows you to quickly find the color you need on the shelf in the warehouse, protects the insulation from oxidation, dust or getting dirty during storage and always guarantees the end user the highest quality of wires after removing them from the packaging.

**BQ** single wires have been made using **ISO 9001** and **ISO 14001** standards, are approved for use in **EU** markets and comply with the requirements of the environmental directives **RoHS-3** (2015/863/EU), **RoHS-2** (2011/65/EU), **RoHS** (2002/95/EU) and also comply with the requirements of **REACH** (Regulation 1907/2006) meeting regularly updated ECHA restrictions.

Offered **BQ** single wires are universally applicable thanks to their professional design & performance and are ideal for most manufacturing, service or hobby projects in all areas of electronics and electrotechnical or electrical engineering. They are most often used in industrial and electro-medical automation, cranes, lifts, automotive and lighting industry, construction of all kinds of machines and devices from toys, alarm systems, traffic lights and sound signals, multimedia advertising screens, power supplies, distribution and vending machines, scales, arcade game machines, audio video equipment, consumer electronics devices, household appliances, wheel balancers, parcel lockers, parking meters, industrial air conditioners or tanning sunbeds to advanced technological lines, when making power supply lines, steering, control, executive and on-board installations, warning or alarm systems and many other applications. They are also often used in the manufacture, modernization, modification, tuning or reconstruction of all types of vehicles: electric drive scooters, mopeds, bikes and skateboards, motorbikes, quads, buggies, cars, vans and trucks with electric, hybrid or fuel engines drive, special vehicles (taxis, ambulances, fire trucks, police cars, banking armored cars, campers, cranes, tow trucks, loading lifts etc.), buses, tractors, semi-trailers, trailers, caravans, trams, trains and they can be found even on yachts and speedboats, drones, powered hang gliders or sailplanes. **BQ** single wires are often used to control and power energy-efficient LED lighting and emergency lighting systems, connect sensors and computer controllers to receivers, implement complex smart buildings projects, as well as for all service and hobby work.

**LGY / H05V-K** single wires supplied by **BQ** are the perfect solution for any professional who appreciates the quality and convenience of wires use. The use of these wires is simple, fast, economical and always guarantees excellent reliability.

BQ
CABLE
50
100
200