vega®
tronik
TLWY Cu
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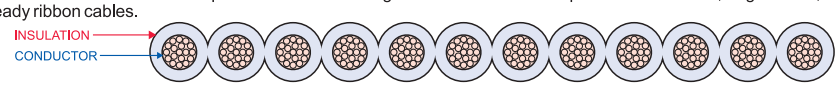
MULTICOLOR FLAT RIBBON CABLES TLWY

- The modern and highly advanced technology is applied to our ribbon cable production, based i.a. on laser beams used in joining process. This system influences considerably the precision of ready cable manufacturing and reduces the usage of harmful chemical compounds, making the product to be inodorous, ecological and fully compatible with environmental protection standards.
- Each wire in ribbon cable is separately insulated with multicolor insulation, which makes its quick identification. Insulation is made from the special lead free thermoplastic material on base of new generation polyvinits at increased physical and chemical parameters at raised thermal resistance. It allowed to increase the permissible rated voltage and ensures the exceptional smoothness, bright lustre, softness and elasticity of ready ribbon cables.
- Colour system:



Conductor numer	1	2	3	4	5	6	7	8	9	10	11	12
Insulation colour	RED	BLUE	BLACK	WHITE	GREEN	BROWN	YELLOW	RED	BLUE	BLACK	WHITE	GREEN
Colour code acc. RAL	3000	5015	9005	9016	6018	8003	1021	3000	5015	9005	9016	6018

- All basic wires in ribbon are made in system of thinned insulation at preservation of all dielectric and electric parameters, which makes assembling easier and allows more effective use of transitions or cable glands.
- Basic wires conductors in ribbon are stranded in form of steadily twisted wires made of very thin, bare and soft copper wires **Cu** at increased purity, which makes our cables exceptionally elastic, easy fixing, soldering and clamping.
- Each ribbon basic wire or group of wires at requested quantity being necessary to assembly can be easily separated from the rest of ribbon cable.
- Ribbon cables are usually winded on reel discs containing **50** meters or **25** meters for bigger diameters. All discs are winded evenly and compactly, which ensures them perfect visual effect, makes their storage easier and prevents their uncontrolled unwinding. Additionally each disc is QC sealed at the end of cable and is protected with cover made of transparent therm-shrinking foil against cable oxidation, insulation hardening or getting dirty during storage period.

TECHNICAL PARAMETERS OF RIBBON CABLES PVC INSULATED TLWY

Quantity of wires in ribbon × conductor cross section	Size AWG System	Package: disc length	Conductor size structure quantity x ∅ wires	The average external single wire diameter	Maximum working voltage	Maximum load current per each wire	Conductor resistance at T = 20°C maximum ÷ minimum
8 / 10 / 12 × 0,12 mm²	AWG 26	50 meters	**8 x 0,14** mm	∅**1,3** mm	300 V	1,2 A	155 ÷ 139 mΩ/m
8 / 10 / 12 × 0,22 mm²	AWG 24	50 meters	**7 x 0,20** mm	∅**1,4** mm	300 V	2,2 A	89,3 ÷ 80,4 mΩ/m
8 / 10 / 12 × 0,35 mm²	AWG 22	50 meters	**12 x 0,20** mm	∅**1,5** mm	500 V	3,5 A	52,0 ÷ 47,8 mΩ/m
8 / 10 / 12 × 0,50 mm²	AWG 20	50 meters	**16 x 0,20** mm	∅**1,7** mm	500 V	5,0 A	37,1 ÷ 34,1 mΩ/m
8 / 10 / 12 × 0,75 mm²	AWG 18	25 meters	**24 x 0,20** mm	∅**2,0** mm	500 V	7,5 A	24,7 ÷ 22,7 mΩ/m
8 / 10 / 12 × 1,00 mm²	AWG 17	25 meters	**32 x 0,20** mm	∅**2,2** mm	500 V	10,0 A	18,5 ÷ 17,0 mΩ/m

- Operating temperature of our cables is in the range from **-40°C** to **+105°C** (max. +120°C).
- Basic wires in ribbon meet the requirements and are in full accordance with international certificates or normative regulations **ISO 9001**, **ISO 14001** and **VDE** / German standard, **BASEC** / British standard and they are allowed to be used in EC countries and marked with CE sign basing 73/23/EEC and 2006/95/EC directive.
- Technical and electrical parameters of basic wires in ribbon meet the requirements of Polish standard **PN-91/T-90206** or **PN-87/E-90054** and the parameters of ready ribbon cables meet the requirements of Polish standard **PN-91/T-90211**.
- Ribbon cables comply with the environmental directive **RoHS** according to 2002/95/EU act and **RoHS-2** according to 2011/65/EU act with later additions on the restriction of the use of certain hazardous, harmful or poisonous substances in electric and electronic equipment. They also meet the requirements of **REACH** system according to 1907/2006 decree of EC Parliament on applied restrictions regarding production and distribution of chemical materials.
- Application of ribbon cables TLWY type is universal and they are applied in the most areas of electronics, electrotechnics and electric activities. They are excellent for making wiring in the majority of commercial equipment, electromedical and industrial automation, telecommunication and motorization at carrying out supply, control, test, executing, on-board, alarm, data transfer installation and many others. The are widely used in the manufacture or improvement of all types of vehicles, boats, yachts, planes, drons, cranes, lifts, machinery, technological lines, computers with peripheral units and other devices and electronic equipment. They are also suitable for wiring power and control LED lighting systems, smart buildings projects realization, LCD or LED displays and digital touch panels control and for all service or hobby jobs.
- Using ribbon cables is easy, quick and economical. They are saving time and costs in comparison with other multiwiring systems and our wide sizes range makes possible transfer not only driving signals but also service of high power consumption equipment. More info and photos of all products range are available on our website **www.vega-tronik.eu**

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RoHS COMPLIANT 2002/95/EU · CE 2006/95/EC · REACH COMPLIANCE · RoHS-2 COMPLIANT 2011/65/EU