

## Robot control cable / motor cable / sensor cable / EMZ cable



### Cable design

#### Internal conductor

- Special conductor
- Strand class VI (super-fine wire)
- Highly flexible

#### Core insulation

- TPM or PUR

#### Core identification

- for design reasons

#### Core stranding

- Wires stranded with optimum lay lengths, low-torsion stranding with matching short lay lengths by one filling element

#### Innen sheath

- TPM

#### Screening

- Tin-plated copper braid
- Optical covering > 80%

#### Outer sheath

- Special PUR

### Cable properties

#### PUR self-extinguishing and flame retardant

- according to IEC 60332-1 / EN 50265-2-1

#### Oil-resistant

- acc. to VDE 0472

#### Halogen-free

- Based on EN 50267-2-1

#### Silicone-free

- The materials used in manufacture are free of silicone and cadmium, as well as of substances that impair paint wetting

#### Lead-free

- Based on EU Directive (RoHS) 2002/95/EG

### Advantages

- Extremely high resilience to mechanical loads
- For extreme loadings
- High flexibility, even at very low temperatures

### Application

Robot cables for the most extreme applications.

These robot cables are absolutely torsion-loadable and are highly resistant to flexural stresses. They are particularly suitable for automated production processes with 3D movements, such as occur in the automotive industry, general engineering and plant construction.



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### Technical data

**Nominal voltage:**

$U_0/U$ : 300 V/500 V

**Test voltage:**

3,000 V

**Insulation resistance:**

min. 100 MΩ x km

**Temperature range when moving:**

-30 °C to +80 °C max. conductor temp.

**Temperature range static:**

-40 °C to +80 °C max. conductor temp.

**Minimum bending radius flexing:**

10 x Cable diameter

**Minimum bending radius static:**

5 x Cable diameter

Designation:	Art no.:	Ø in mm:	CU kg/km:	Weight kg/km:	Minimum bending radius (mm):	Remarks
Control cable 2x0.5+(2x0.5) mm <sup>2</sup>	82851001	8.0	32.0	72.0	80.0	
Control cable 13x0.5+3x1.0+(2x0.5) mm <sup>2</sup>	82851002	12.7	102.0	186.0	127.0	
Control cable 6x0.75+(3x0.75) mm <sup>2</sup>	82851003	10.0	188.1	307.0	100.0	
Control cable 5x1.0+(2x1.0) mm <sup>2</sup>	82851004	10.2	91.0	132.0	102.0	
Control cable 7x1.0+(2x1.0) mm <sup>2</sup>	82851005	10.6	92.0	138.0	106.0	
Control cable 16x1.0+(2x1.0) mm <sup>2</sup>	82853006	14.6	179.0	301.0	146.0	
Control cable 17x1.0+(2x1.0) mm <sup>2</sup>	82851007	14.8	188.0	309.0	148.0	
Control cable 23x1.0+(2x1.0) mm <sup>2</sup>	82851008	13.5	254.0	348.0	135.0	
Control cable 24x1.0+(2x1.0) mm <sup>2</sup>	82851009	15.7	249.0	385.0	157.0	
Control cable 3x(2x0.75)+17x0.75 mm <sup>2</sup>	82851019	15.8	185.0	333.0	158.0	
Control cable 2x(3x0.5)+3x0.5+2x4x0.5+2x0.5 mm <sup>2</sup>	82853010	11.4	108.0	91.6	114.0	
Control cable 22x0.75+5x(2x0.75) mm <sup>2</sup>	82851013	17.0	265.0	430.0	170.0	
Control cable (2x2x0.5)+3x3x0.5+5x3x1.0 mm <sup>2</sup>	82851020	13.6	126.0	253.0	136.0	
Control cable (2x1.0)+(3x1.0)+1x1.0 mm <sup>2</sup>	82853007	10.2	89.0	145.0	102.0	
Motor cable (4x2.5+(2x2x0.75)) mm <sup>2</sup>	82859009	13.0	197.0	275.0	104.0	
Motor cable (4x2.5+2x1.0) mm <sup>2</sup>	82859019	12.3	147.0	250.0	123.0	
Sensor cable 4x(2x0.25) mm <sup>2</sup>	82859010	11.6	86.0	190.0	116.0	
Sensor cable 8x(2x0.25) mm <sup>2</sup>	82859018	12.0	90.0	220.0	120.0	
EMZ cable [(4x2x0.25)+(5x1.5)+2x(2x0.5)+(5x0.5)] mm <sup>2</sup>	82852002	16.3	274.0	456.0	163.0	
EMZ cable [(4x0.75)+(5x0.5)+2x(2x0.5)+(4x2x0.25)] mm <sup>2</sup>	82852003	17.4	221.0	388.0	174.0	
EMZ cable [(4x2x0.25)+2x(2x0.5)+(5x2.5)+(5x0.5)] mm <sup>2</sup>	82852004	20.0	328.0	547.0	200.0	Wire colour spiralled
EMZ cable [(4x2x0.25)+2x(2x0.5)+(5x2.5)+(5x0.5)] mm <sup>2</sup>	82852005	20.0	328.0	546.0	200.0	Wire colour plain

Dimensions and specifications may be changed without prior notice.