

# FLEXMOV® Control Cables

## FLEXMOV® 控制电缆

### FMC912 控制电缆 Control cables



- TPE 外护套
- 带屏蔽
- 阻燃
- 耐油、耐生物油
- 抗UV
- 抗水解和微生物
- 不含PVC
- 低温移动应用
- TPE outer jacket
- Shielded
- Flame resistance
- Oil and bio-oil-resistant
- UV-resistance
- Resistant to hydrolysis and microbes
- PVC free
- Low-temperature-flexibility

### 移动参数 Dynamic Information

|  |                               |                                                                                      |                 |
|--|-------------------------------|--------------------------------------------------------------------------------------|-----------------|
|  | 最小弯曲半径<br>Min. bending radius | 拖链内移动 Moving in cable carriers                                                       | 5 x d           |
|  |                               | 非拖链内移动 Flexible moving                                                               | 4 x d           |
|  |                               | 固定铺设 Fixed installation                                                              | 3 x d           |
|  | 使用温度范围<br>Temperature         | 拖链内移动 Moving in cable carriers                                                       | -35°C至to +100°C |
|  |                               | 非拖链内移动 Flexible moving                                                               | -45°C至to +100°C |
|  |                               | 固定铺设 Fixed installation                                                              | -50°C至to +100°C |
|  | 最大速度<br>v max.                | 架空 Unsupported                                                                       | 10 m/s          |
|  |                               | 滑行 Gliding                                                                           | 6 m/s           |
|  | 最大加速度<br>a max.               | 100 m/s <sup>2</sup>                                                                 |                 |
|  | 行程距离<br>Travel distance       | 架空应用和行程距离小于400米的滑行应用<br>Unsupported travels and up to 400 m for gliding applications |                 |

### 电缆结构 Cable structure

|  |                                |                                                                                                                                                                                                                                                                                                                                        |
|--|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | 导体<br>Conductor                | 高抗弯强度的精细裸铜多股线（符合EN 60228 标准）<br>Conductor consisting of bare copper wires (according to EN 60228).                                                                                                                                                                                                                                     |
|  | 绝缘材料<br>Conductor insulation   | 高机械性能的TPE混合物<br>Mechanically high-quality TPE mixture.                                                                                                                                                                                                                                                                                 |
|  | 芯线结构<br>Conductor construction | 芯线数量 < 12: 芯线以短节距绞合在一起<br>Number of conductors < 12: Conductors cabled in a layer with short pitch length.<br><br>芯线数量 ≥ 12: 芯线采用两次复绞，特别的抗扭力结构<br>Number of conductors ≥ 12: Conductors combined in bundles and stranded together around a high-tensile strength core, using short pitch directions for a low-torsion cable structure. |
|  | 芯线识别<br>Color code             | 截面积Cross-sectional < 0.75mm <sup>2</sup> : 颜色代码符合 Color code in accordance with DIN 47100<br><br>截面积Cross-sectional ≥ 0.75 mm <sup>2</sup> : 一根为黄绿芯线，其余均为黑色芯线带白色数字<br>Black with white numbers, one conductor green-yellow                                                                                                             |
|  | 内护套<br>Inner jacket            | TPE混合物适用于拖链<br>TPE mixture adapted to suit the requirements in cable carriers.                                                                                                                                                                                                                                                         |
|  | 总屏蔽<br>Overall shield          | 高度抗弯曲的镀锡铜丝编织。覆盖线性约70%，光学约90%。<br>Extremely bending-resistant braiding made of tinned copper wires. Coverage linear approx. 70 %, optical approx. 90 %                                                                                                                                                                                  |
|  | 外护套<br>Outer jacket            | 低粘性的TPE基混合物，高度耐磨、柔性，符合拖链要求。<br>Low-adhesion mixture on the basis of TPE, especially abrasion-resistant and highly flexible, adapted to suit the requirements in cable carriers.<br>颜色：板岩灰 Color: Slate grey RAL 7015                                                                                                                   |

## 电气参数 Electrical Information

|                                                                                   |                         |                                                      |
|-----------------------------------------------------------------------------------|-------------------------|------------------------------------------------------|
|  | 额定电压<br>Nominal voltage | U <sub>0</sub> /U: 300/500 V (符合following VDE0298-3) |
|  | 测试电压<br>Test voltage    | 2000 V (符合following EN50395)                         |

## 特性和认证 Properties and approvals

|                                                                                     |                              |                                                                                                                                                                                 |
|-------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | 抗紫外线<br>UV-resistance        | 高 High                                                                                                                                                                          |
|    | 耐水解<br>Hydrolysis-resistance | 高 High                                                                                                                                                                          |
|    | 耐低温<br>Cold-resistant        | -50°C                                                                                                                                                                           |
|    | 耐油性<br>Oil resistance        | 耐油 (符合 IEC60811-404 标准, 经SGS检测), 耐生物油 (符合VDMA24568 标准, 经SGS检测)<br>Oil-resistant (following IEC60811-404, tested by SGS), bio-oil-resistant (following VDMA24568, tested by SGS) |
|    | 阻燃<br>Flame resistance       | 符合According to IEC 60332-1-2、VW-1、FT1                                                                                                                                           |
|   | REACH                        | 符合 Accordding to the regulation (EC) No. 1907/2006 (REACH)                                                                                                                      |
|  | EAC                          | 经认证Certificate No. KG 417/043.CN.02.00249                                                                                                                                       |
|  | 无铅<br>Lead-free              | 符合Following 2015/863/EU (RoHS-II 经SGS检测 Tested by SGS)                                                                                                                          |
|  | 无尘室<br>Cleanroom             | 符合Following ISO 14644-1                                                                                                                                                         |
|  | CE                           | 符合Following 2014/35/EU                                                                                                                                                          |
|  | UL                           | 符合Following UL22187, 600V, 80°C                                                                                                                                                 |

## 质保使用寿命 Guaranteed service life

| 往返行程<br>Double strokes                 | 500万次<br>5 million times           | 750万次<br>7.5 million times         | 1000万次<br>10 million times         |
|----------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| 适用温度范围<br>Temperature,<br>from/to [°C] | 最小弯曲半径<br>R min.<br>[系数factor x d] | 最小弯曲半径<br>R min.<br>[系数factor x d] | 最小弯曲半径<br>R min.<br>[系数factor x d] |
| -35/-25                                | 6.8                                | 7.5                                | 8.5                                |
| -25/+90                                | 5                                  | 6                                  | 7                                  |
| +90/+100                               | 6.8                                | 7.5                                | 8.5                                |

# FLEXMOV® Control Cables

FLEXMOV® 控制电缆

FMC912

## FMC912 控制电缆 Control cables

| 产品编码<br>Part No.           | 芯数及截面积<br>Number of cores and conductor nominal cross-section<br>[mm <sup>2</sup> ] | 外径<br>Outer diameter<br>[mm] | 铜含量<br>Copper index<br>[kg/km] | 重量<br>Weight<br>[kg/km] |
|----------------------------|-------------------------------------------------------------------------------------|------------------------------|--------------------------------|-------------------------|
| FMC912.02.04               | (4×0.25)C                                                                           | 7                            | 26                             | 67                      |
| FMC912.02.08               | (8×0.25)C                                                                           | 9                            | 39                             | 102                     |
| FMC912.02.12               | (12×0.25)C                                                                          | 10.5                         | 66                             | 155                     |
| FMC912.02.25               | (25×0.25)C                                                                          | 13                           | 112                            | 252                     |
| FMC912.05.04               | (4×0.5)C                                                                            | 8.5                          | 39                             | 96                      |
| FMC912.05.05               | (5×0.5)C                                                                            | 8.5                          | 39                             | 96                      |
| FMC912.05.12               | (12×0.5)C                                                                           | 13                           | 110                            | 254                     |
| FMC912.05.25               | (25×0.5)C                                                                           | 16.5                         | 191                            | 396                     |
| FMC912.07.04               | (4G0.75)C                                                                           | 9                            | 51                             | 119                     |
| FMC912.07.05               | (5G0.75)C                                                                           | 10                           | 71                             | 149                     |
| FMC912.07.07               | (7G0.75)C                                                                           | 10                           | 94                             | 194                     |
| FMC912.07.12               | (12G0.75)C                                                                          | 14.5                         | 148                            | 324                     |
| FMC912.07.20               | (20G0.75)C                                                                          | 17                           | 220                            | 467                     |
| FMC912.07.25               | (25G0.75)C                                                                          | 19.5                         | 288                            | 593                     |
| FMC912.10.02               | (2×1.0)C                                                                            | 8.5                          | 40                             | 102                     |
| FMC912.10.03               | (3G1.0)C                                                                            | 9                            | 50                             | 117                     |
| FMC912.10.04               | (4G1.0)C                                                                            | 10                           | 74                             | 151                     |
| FMC912.10.05               | (5G1.0)C                                                                            | 10.5                         | 87                             | 174                     |
| FMC912.10.07               | (7G1.0)C                                                                            | 12                           | 110                            | 189                     |
| FMC912.15.04               | (4G1.5)C                                                                            | 10.5                         | 98                             | 186                     |
| FMC912.15.05               | (5G1.5)C                                                                            | 11.5                         | 116                            | 214                     |
| FMC912.15.07 <sup>⑦)</sup> | (7G1.5)C                                                                            | 13                           | 154                            | 278                     |
| FMC912.15.12               | (12G1.5)C                                                                           | 17.5                         | 251                            | 497                     |
| FMC912.15.18               | (18G1.5)C                                                                           | 21.5                         | 387                            | 732                     |
| FMC912.25.04               | (4G2.5)C                                                                            | 12                           | 145                            | 258                     |
| FMC912.25.07 <sup>⑦)</sup> | (7G2.5)C                                                                            | 15                           | 234                            | 423                     |
| FMC912.25.12               | (12G2.5)C                                                                           | 21.5                         | 417                            | 796                     |
| FMC912.40.04               | (4G4.0)C                                                                            | 13.5                         | 213                            | 362                     |

⑦) 当使用7G1.5mm<sup>2</sup>和7G2.5mm<sup>2</sup>电缆时; 滑行使用行距≥5m, 最小弯曲半径17.5xd

When using the cables with "7G1.5mm<sup>2</sup>" and "7G2.5mm<sup>2</sup>" minimum bend radius must be 17.5xd with gliding travel distance ≥ 5m.

注Note: 外径是指参考值 The outer diameters are reference values.

G: 带黄-绿接地线 With green-yellow earth core

x: 不带接地线 Without earth core

FMC912

FLEXMOV®

www.csb-ep.com  
sales@csb-ep.com

电话: 0573 84186133/84185527  
Tel: 0086 573 84187009