

# Railways - Multibundle K209 cables

MBC K209B LSZH 24X6SM SP1921 BK

Multi Micro-bundles cable with corrugated steel armour

This multi micro-bundles cable is designed for indoor/outdoor installation in railways infrastructure.

The corrugated steel armour provides a high rodent protection. This cable has an outstanding fire behaviour.

Access to μbundles is made easy with the internal ripcord.

This cable can be operated under a large temperature range.

## Design

The MBC LSZH SP1921 cable has a central strength member (FRP : Fibre Reinforced Plastic), with 24 bundles around integrating 6 fibres each. The design is reinforced by a first layer of watertight glass, a LSZH\* inner sheath, a second layer of watertight glass yarns, a corrugated steel armour and a LSZH\* outer sheath.

## Technical performances

The multibundle cable performances are specified in the following tables.

## Euroclass

B2<sup>ca</sup> S1a a1 d0

\* LSZH: Low Smoke Zero Halogen.



## STANDARDS

EN 50399 B2  
IEC 60331-2  
IEC 60332-1  
IEC 60332-3  
IEC 60754-1  
IEC 60794  
IEC 61034  
NF C32-070/C1

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## Characteristics

### 구조적 특성

색상	검은색
Fiber optic type	SM
Armour type	크레이프 스틸
피복	저연 할로겐 프리
Halogen free	IEC 60754-1
Material used for longitudinal water tightness	팽창사
Metal free	No
Strength member	FRP 센터 보강재
구조	멀티 번들 튜브
Additional strength member	유리사

### 치수

Number of tubes	24
무게(근사치)	330 kg/km
Number of optical fibres	144
Nominal outer diameter	16.7 mm

### 기계적 특성

Mechanical resistance to impacts	3 impacts of 5 N.m
Maximum permanent tensile load	3.4 kN
Crush resistance (IEC 60794-1-E3)	200 N/cm
Maximum installation tension	5700 N

### Transmission characteristics

Attenuation, max. 1310 nm (cabled)	0.36 dB/1000m
Attenuation, max. 1550 nm (cabled)	0.23 dB/1000m

### 사용 특성

Rodent protection	Corrugated steel tape
操作温度范围	-30...60 °C
Fire retardant	IEC 60332-3
Minimum static operating bending radius	330 mm
난연	IEC 60332-1

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연기밀도	IEC 61034-2
U.V resistance	Good
Storage temperature, range	-30...70 °C
Laying operation bending radius	420 mm
Installation type	Indoor/Outdoor
Installation temperature, range	-5...60 °C
Water proof	Longitudinal & radial

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