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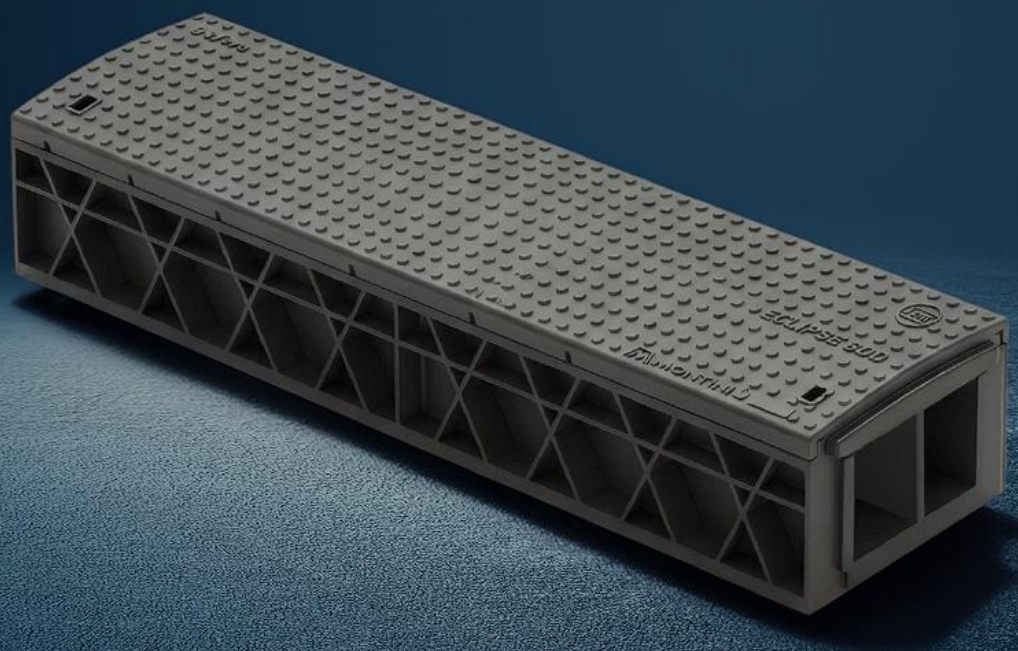
IQ X-DUCT CABLE THROUGH SYSTEM



IQ X-Duct Cable Through System

Description and Application

IQ X-Duct is a self-contained cable ducting system designed for installation at ground level (surface level) in railway, tunnel, and energy infrastructure projects. The system is constructed as a closed cable channel with a separate cover and a walkable surface, and it forms part of the UniSeals IQ Product Range.

IQ X-Duct is developed for use in areas where cable routes must be installed at surface level and where requirements apply for mechanical protection, accessibility, and load resistance from traffic and operational use.

Design and System Configuration

IQ X-Duct is designed as a modular cable ducting system consisting of a channel and a separate cover. The system is intended for installation at ground level, where it combines cable protection, accessibility, and a walkable surface in one integrated solution.

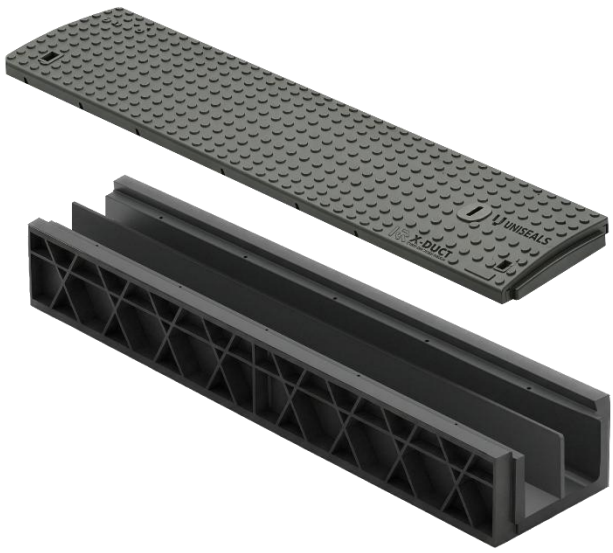
The design enables the establishment of linear cable routes at surface level with secure covering and continuous access along the entire installation.

Dimensions and Geometry

IQ X-Duct is supplied as standard elements with fixed, defined geometry.
All dimensions, cross-sections, and tolerances are specified in the associated technical drawings.

The closed geometry ensures stable installation, uniform jointing, and a secure interface between the channel and the cover.

(Refer to the attached technical drawings for the complete dimensional overview.)



IQ X-Duct 250x1000	
Internal dimensions	**External dimensions**
245x1000	360x1000

Material Specification

IQ X-Duct is manufactured from polyethylene (PE) reinforced with glass-reinforced plastic (GRP).
This material combination provides:

- Low self-weight
- High structural strength
- Resistance to moisture and aggressive environments
- Dimensional stability and long service life when installed in ground-level and rail environments

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Structural Performance and Load Capacity

IQ X-Duct is developed for surface-level installation and is dimensioned to withstand loads from pedestrian traffic and operational use at ground level.
The system's load class is determined in accordance with EN 124, based on the final configuration and intended application.

Fire Performance and Safety

IQ X-Duct is designed for use in environments with high fire safety requirements and is:

- Flame retardant
- Halogen-free

The system is tested and certified in accordance with:

- DIN 53438-2 (K1)
- IEC 61084-1

This documents the system's suitability for installation in railway tunnels, stations, and similar facilities.

Installation

IQ X-Duct is designed for manual handling and installation. The system's low weight reduces the need for heavy lifting equipment and enables safe installation in areas with limited space, including track areas, platforms, and technical zones at ground level.

Areas of Application

IQ X-Duct is typically used in:

- Railway and light rail systems
- Tunnels and stations
- Platforms and technical areas at ground level
- Surface-level cable routes for power, signaling, and data installations

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Standards and Documentation

- DIN 53438-2 (K1) – Fire performance
- IEC 61084-1 – Cable through systems
- EN 124 – Load classes (depending on configuration)
- Tested for fire performance, fit, and structural functionality

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Technical Specifications – IQ X-Duct System

Parameter	Specification
System type	Closed cable duct with separate cover
Installation level	Ground surface / surface level
Material	Polyethylene (PE) reinforced with GRP
Dimensions	Refer to technical drawings
Load class	According to EN 124 – depending on configuration and application
Fire performance	Flame retardant and halogen-free
Fire certifications	DIN 53438-2 (K1), IEC 61084-1
Installation	Manual installation
Maintenance	Minimal

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