Product Datasheet

UDP In-Ground Distribution Box

Secure, watertight underground distribution link switches and services up to 630 A

DS0033 R4 UDP In-ground Distribution Box Datasheet 08/2025

The Hiko UDP takes asset lifecycle management to the next level: it future proofs the LV network and eliminates the risks associated with above ground pillars. The design of the pit eliminates the need for a concrete vault or collar, reducing time and cost on site.

The Hiko UDP uses industry standard fusegear / switchgear and structural pits to provide a safe, robust, reliable, flexible and future- proof solution for underground urban distribution reticulation and service supplies up to 630 A.

Hiko uses pits made by Langmatz in Germany which are engineered for a lifetime of over 40 years. Their use of structural foamed polycarbonate (SFPC) with a modular design delivers outstanding performance under dynamic and static load conditions. The SFPC material is extremely strong, heat resistant, flame retardant and resistant to solvents including petrol, diesel and oil. It has been shown by independent testing to be completely non-toxic to ground water. Installation is facilitated by the SFPC pit elements, which can be easily separated into layers and reconnected if required, and by the provision of tool- free conduit knockouts and a level adjustable lid.

The EFEN fusegear / switchgear used by Hiko is housed horizontally under a watertight composite “bell” which allows continuous operation even in flood conditions.

The UDP is available with lids rated to AS3996 or EN 124 from Class B for footpaths and driveways right up to Class D for application in carriageways.

No special tools or spare parts are required.

Mechanical Specifications

Specification	Test Method	Requirement
Lid load class	AS 3996	Up to Class E400 (40 tonnes)
Transfer of vertical loads to ground base	DIN 1054:2005-01	min 200 kN/m^2
Transfer of adjacent static and dynamic loads to ground base	DIN FB 101	Load class 2 (96 kN with area 40x40 cm using set up RStO road class)
Active ground pressure (transfer of vertical loads to pit elements)	DIN 4085	Ground types V1 to V3 acc to ATV-DVWK-A 127

Materials

Component	Material
Lid	Cast iron, galvanized steel, composite, or paved
Bell	Composite
Head frame	Hot dip galvanised steel (≥ 70 µm) or stainless steel 304
Fixings	Stainless steel 304
Structural pit elements	Structural foamed polycarbonate (PC/PBT blend with 6% GRP)

Structural Pit Element Material Properties

Specification	Test Method	Requirement
Density	ISO 1183	0.95 – 1.25 g/cm^3
Water absorption	DIN 53495	< 0.5 %
Hardness	ISO 2039/1	90 MPa
Tensile strain at break	ISO 527	38 MPa
Elongation at break	ISO 527	12 %
Elastic modulus	ISO 527	2,000 MPa
Notched impact strength	DIN 53453	6 kJ/m^2 (20°C), 4 kJ/m^2 (-20°C)
Vicat softening temperature	ISO 306	110°C (B50 method)
Flammability	(Surface flame)	Self-extinguishing after flame is withdrawn
Groundwater compatibility	(Independent Test)	Non-toxic (no leaching of heavy metals, phenol, polycyclic aromatic hydrocarbons or BTEX)

Dimensions

Hiko Code	Internal Dimension (LxWxDmm)	External Dimension * (LxWxDmm)
UBxx05xx	400x400x700	500x500x700
UBxx07xx	800x400x700	960x500x700
UBxx11xx	800x650x700	960x800x700
UBxx10xx	800x800x700	960x960x700

*Excluding cable tails

Box Types

Internal Dimension (LxWxDmm)	Distribution System Box		Network Link Box	Bus Coupler	Intersection Network Box	Empty Box
	3Ø 630A	3Ø+1Ø 160A	3Ø 630A	3Ø 630A	3Ø 630A	
400x400x700	✓	-	-	-	-	✓
800x400x700	✓	✓	✓	-	-	✓
800x650x700	✓	✓	✓	✓	-	✓
800x800x700	✓	✓	✓	✓	✓	✓

Lid Types

Internal Dimension (LxWxDmm)	Lid AS3996 Class B	Lid EN124 Class B	Lid EN124 Class D
400x400x700	-	-	✓
800x400x700	✓	✓	✓
800x650x700	✓	-	-
800x800x700	✓	✓	✓

Weights

Internal Dimension (LxWxDmm)	Typical Weights(kg)					
	Total	Head Frame	AS3996 Class B	EN124 Class B	EN124 Class D	Switchgear Assembly
400x400x700	62	18	-	29	29	5
800x400x700	110	20	15	33	45	20
800x650x700	160	25	20	-	-	30
800x800x700	200	30	25	135.5	135.5	40

Options
Service fuses or EFEN DIN-type horizontal disconnectors 160 A to 630 A
Locking and latching arrangements.

Other literature available on request
Reports, drawings, technical data sheets, installation instructions, O&M guidelines