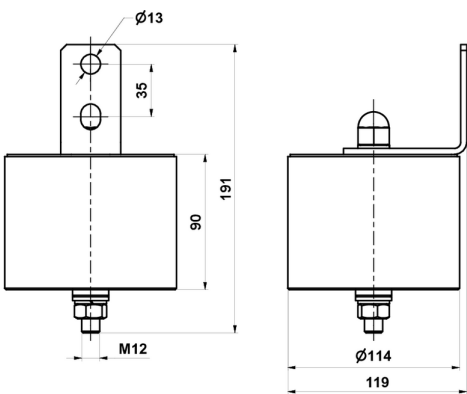




HL120

- Voltage limiting device VLD – O + F for AC or DC traction systems public transportation as are tram or trolleybus systems.
 - Intended for the protection of non-live parts of metal structures.
 - Ensure the equipotential bonding between inactive parts, which are not conductively interconnected due to the operating conditions.
 - Used for effective protection of persons who may get in touch with these parts in the event of a lightning strike or traction line failure.
- Installed directly on the protected construction structure with connection to the track.
 - In the event of a fault by short-circuiting the structure with the track, a quick-release switch will react and interrupt the power supply of the traction line.
 - Resistant to vandalism, acid rain and mechanical damage.

Type		HL120
Class of VLD according EN 50526-2		2.2
Polarity		Bidirectional
Type of VLD according EN 50122-1:2011		VLD-F, VLD-O
Maximum non-triggering AC voltage	U_W	60 V
Nominal triggering DC voltage	U_{Tn}	120 V
Short time withstand current DC (25 ms repeatable)	I_W	4.7 kA
Short time withstand current DC (100 ms unrepeatable)	I_W	20 kA
Rated current DC (60 min)	I_r	105 A
Lightning current impulse (8/20)	I_{imp-n}	40 kA
High charge impulse (10/350)	I_{imp-hc}	35 kA
Varistor voltage DC at 1 mA	U_V	180 V
Residual voltage at I_{imp-n}	U_{res}	≤ 500 V
Response time at lightning current impulse	t_R	< 25 ns
Response time of thyristor	t_R	< 1.2 ms
Housing material		Stainless steel
Degree of protection		IP67
Product placement environment		External
Operating temperature	θ	-40 ÷ 55 °C
Altitude		Without limits
Operating position		Vertical
Installation		On the flange, Using two M12 screws
Tightening torque for mounting to the structure		56 Nm
Tightening torque for equipotential bonding conductor connection		32 Nm

Designed according to standards

Railway applications – Protective provisions against electric shock		EN 50122-1:2022
Railway applications – Fixed installations – D.C. surge arresters and voltage limiting devices		EN 50526-2:2014
Environmental testing - Part 2-38: Tests - Test Z/AD: Composite temperature/humidity cyclic test		EN IEC 60068-2-38:2021

Application standards

Protection against lightning		IEC 62305:2010
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Ordering, packaging and additional data

Mass	m	4.7 kg
Mass (including the packaging)	m	4.819 kg
Packaging dimensions (H x W x D)		122 x 214 x 133 mm
Packaging value	V	3.47 dm ³
Customs tariff no.		85363010
EAN code		8590681102404
Art. number		10 240



The link in the QR code leads to the online presentation of the **HL120**. There, in addition to the always up-to-date data sheet, you will also find all diagrams and drawings, declarations of conformity, or 2D or 3D models and other necessary materials. For more information, visit www.hakel.com



Internal diagram

