



Safety

first! HFT® Cable Management



Enduring safety

Prevention pays off in the long run.

Proper planning begins with making provisions for the protection of human lives and valuable assets.

With halogen-free cable management systems from Dietzel Univolt you are always on the safer side.

Your advantages:

- ❶ minimum smoke release in case of fire
- ❷ absolutely halogen-free
- ❸ flame retardant
- ❹ chemically resistant
- ❺ temperature resistant
- ❻ maintenance free
- ❼ easy to install
- ❽ insulating



HFT® - the novelties in brief



PVC



LSF0H

LSF0H versus PVC

LSF0H refers to an internationally recognised description of product properties that comply with increased safety requirements. Concerning conduit systems for electrical installations this means specific precaution against fires and consequential damages. Effectively this leads to higher safety for human lives, better protection of valuable assets and safeguarding the continuity of operations.

UNIVOLT HFT® LSFOH Series

Safety in case of fires

Safety in case of fires is also a matter of proper planning. When exposed to fire, plastic materials like PVC release corrosive gases which are not only extremely toxic for human lives, but also attack building stock. Univolt's HFT® branded installation systems are the result of almost 30 years of permanent development. Their improved properties regarding safety and durability comply with the most advanced requirements in modern constructions. HFT® conduit systems are indispensable as a complement to halogen-free cables. Distinctive to conventional plastics they are suitable for a wide range of applications due to their thermal, mechanical and chemical characteristics.

The LSF0H series is the most recent advancement of UNIVOLT's HFT® range and complies with the following relevant safety aspects, as approved by the relevant standards:

- **LS (= low smoke):** minimal generation of smoke, no release of corrosive gases
- **F (= flame retardant):** impedes the propagation of fires, applicable for temperatures from -25°C to +105°C or beyond
- **OH (= zero halogen):** contains absolutely no halogens

Comparison to steel

Our LSF0H conduits offer the same **mechanical resistance** against compression and impact forces like steel systems. Additionally, they have several advantages compared to metal cable management systems

100m of protective conduit (Ø 20mm), with same mechanical properties (compression resistance 1250 N).



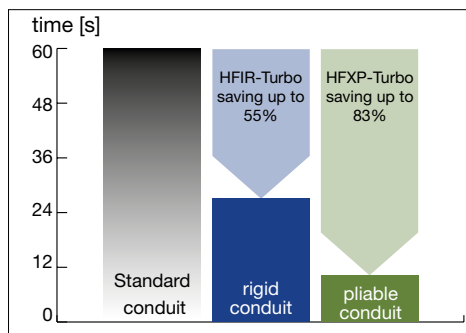
per 100m of protective conduit

- ① weight saving
- ② rust proof and maintenance free for life-time
- ③ easy to install
- ④ selfinsulating
- ⑤ flame retardant
- ⑥ UV stabilised
- ⑦ chemically resistant
- ⑧ seawater-proof
- ⑨ low smoke release
- ⑩ temperature resistant

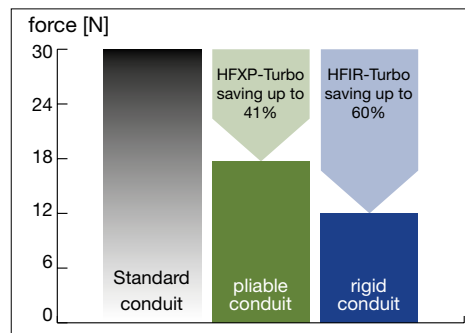
UNIVOLT Turbo Technology

The Turbo design is a patented feature of installation conduits and has become most favoured by installers. Now it is also available for UNIVOLT's LSF0H series and helps users to save time, effort and money. Compared with conventional conduits the Turbo products lead to lower frictional forces, hence shorter installation times for cabling work.

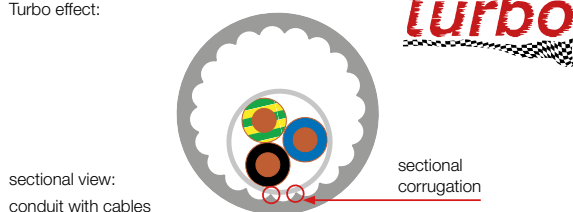
Less time



Less effort



Less friction thanks to the Turbo effect:



The Turbo Effect

The Turbo effect is an innovative and patented conduit design developed by Dietzel Univolt that simplifies and enhances installation work. Inserting cables becomes faster and less strenuous without compromising the characteristics of standard conduits. The sectional corrugation reduces the friction between cable and conduit and helps installers to save time and cost - an explicit customer benefit.

Pliable HFT® Conduits

Light Gauge (320 N)

HFX Turbo, halogen-free pliable conduit light gauge, corrugated, with sectional corrugation; light grey (RAL 7035) or white (RAL 9010), in coils of 50m resp. 25m

Material     
 PP-Blend LSF0H EN 2333 > 320 N - -15°C/+105°C
In accordance with: IEC/EN 61386-22 (replaces IEC 60614-2-3, BS 6099), IEC 60423, EN 50642, LSF0H



art	dn	di	ps [m]	pl [m]	ref	
					light grey	white
HFX Turbo 16	16,0	10,5	50	2700	102 295	102 309
HFX Turbo 20	20,0	13,7	50	2700	102 296	102 310
HFX Turbo 25	25,0	17,9	50	1600	102 297	102 311
HFX Turbo 32	32,0	24,3	25	675	102 298	102 312
HFX Turbo 40	40,0	30,0	25	500	102 299	102 313
HFX Turbo 50	50,0	38,5	25	300	102 300	102 314

HFX Turbo, halogen-free pliable conduit light gauge, corrugated, with sectional corrugation; black (RAL 9005), in coils of 100m, resp. 50m or 25m

Material     
 PP-Blend LSF0H EN 2333 > 320 N ✓ -15°C/+105°C
In accordance with: IEC/EN 61386-22 (replaces IEC 60614-2-3, BS 6099), IEC 60423, EN 50642, LSF0H



art	dn	di	ps [m]	pl [m]	ref
HFX Turbo 16	16,0	10,5	100	3200	102 302
HFX Turbo 20	20,0	13,7	100	4000	102 303
HFX Turbo 25	25,0	17,9	50	1600	102 304
HFX Turbo 32	32,0	24,3	50	1000	102 305
HFX Turbo 40	40,0	30,0	25	500	102 306
HFX Turbo 50	50,0	38,5	25	300	102 307

Light Gauge (320 N), Super Fast

HFX X, super-fast halogen-free pliable conduit light gauge, corrugated, with additional glide core; black (RAL 9005), in coils of 100m

Material     
 PP LSF0H EN 23332 > 320 N - -15°C/+105°C
In accordance with: IEC/EN 61386-22, EN 60754, EN 61034, LSF0H



art	dn	di	ps [m]	pl [m]	ref
HFX X 20	20,0	14,0	100	4000	106 057
HFX X 25	25,0	18,0	100	2800	106 058

Medium Gauge (750 N)

HFXP Turbo Eco, halogen-free pliable, self recovering conduit medium gauge, corrugated, with sectional corrugation; black (similar to RAL 9005), in coils of 100m, resp. 50m or 25m

Material					
PP-Blend	LSF0H	EN 3343	> 750 N	-	-25°C/+105°C
In accordance with: IEC/EN 61386-22 (replaces IEC 60614-2-3, BS 6099), IEC 60423, EN 50642, LSF0H					

art	dn	di	ps [m]	pl [m]	ref
HFXP Turbo Eco 16	16,0	10,0	100	3200	105 750
HFXP Turbo Eco 32	32,0	23,5	25	675	105 751
HFXP Turbo Eco 40	40,0	30,0	25	500	105 752
HFXP Turbo Eco 50	50,0	38,0	25	300	105 753



HFXP Turbo Pro, halogen-free pliable conduit medium gauge, corrugated, with sectional corrugation; black (RAL 9005), in coils of 50m resp. 25m

Material					
PP-Blend	LSF0H	EN 3343	> 750 N	✓	-25°C/+105°C
In accordance with: IEC/EN 61386-22 (replaces IEC 60614-2-3, BS 6099), IEC 60423, EN 50642, LSF0H					

art	dn	di	ps [m]	pl [m]	ref
HFXP Turbo Pro 16	16,0	10,0	50	2700	087 169
HFXP Turbo Pro 20	20,0	13,5	50	2700	087 170
HFXP Turbo Pro 25	25,0	17,5	50	1600	087 171
HFXP Turbo Pro 32	32,0	23,5	25	675	087 172
HFXP Turbo Pro 40	40,0	30,0	25	500	087 173
HFXP Turbo Pro 50	50,0	38,5	25	300	087 174



Medium Gauge (750 N), Super Fast

HFXP Xtreme, halogen-free pliable, self recovering conduit medium gauge, corrugated, with additional sliding layer; black (RAL 9005), in coils of 100m

Material					
PP-Blend	LSF0H	EN 3343	> 750 N	✓	-25°C/+105°C
In accordance with: IEC/EN 61386; LSF0H-compliant acc. to EN 60754 and EN 61034					

art	dn	di	ps [m]	pl [m]	ref
HFXP X 20	20,0	13,0	100	4000	104 830
HFXP X 25	25,0	17,0	100	2800	104 831



HFXP Xtreme Pro, halogen-free pliable conduit medium gauge, corrugated, with sectional corrugation and additional sliding layer; black (RAL 9005), in coils of 100m

Material



PP-Blend LSF0H



EN 3343



> 750 N



✓



-25°C/+105°C

In accordance with: IEC/EN 61386; LSF0H-compliant acc. to EN 60754 and EN 61034



art	dn	di	ps [m]	pl [m]	ref
HFXP X Pro 20	20,0	13,0	50	2700	104 836
HFXP X Pro 20	20,0	13,0	100	4000	104 838
HFXP X Pro 25	25,0	17,0	50	1600	104 837
HFXP X Pro 25	25,0	17,0	100	2800	104 839

Medium Gauge (750 N), High Temperature

HFXP HT, halogen-free and high temperature resistant pliable conduit medium gauge, corrugated; black (RAL 9005), in coils of 50m resp. 25m

Material



PC-Blend halogen-free



EN 3355



> 750 N



✓



-45°C/+150°C

In accordance with: IEC/EN 61386-22 (replaces IEC 60614-2-3, BS 6099), IEC 60423



art	dn	di	ps [m]	pl [m]	ref
HFXP HT 12	13,0	9,0	50	4500	016 574
HFXP HT 16	16,0	9,9	50	2700	011 301
HFXP HT 20	20,0	13,0	50	2700	011 302
HFXP HT 25	25,0	17,0	50	1600	011 303
HFXP HT 32	32,0	23,5	25	675	011 304
HFXP HT 40	40,0	30,0	25	500	013 254
HFXP HT 50	50,0	38,5	25	300	013 255
HFXP HT 63	63,0	50,0	25	175	019 897

Light Gauge (320 N), Highly Flexible

HFXS, halogen-free and highly flexible protective conduit light gauge, corrugated, halogen-free; black (RAL 9005, UV stabilised) or grey (RAL 7001), in coils of 50m resp. 25m

Material



PA LSF0H



EN 2243



> 320 N



✓ *



-25°C/+105°C

In accordance with: IEC/EN 61386-22 (replaces IEC 60614-2-5, BS 6099), IEC 60423, EN 50642, LSF0H



art	dn	di	ps [m]	pl [m]	ref	
					grey	black *
HFXS 12	13,0	8,9	50	4500	015 902	023 654
HFXS 16	16,0	10,7	50	2700	012 903	023 655
HFXS 20	20,0	13,5	50	2700	012 904	023 656
HFXS 25	25,0	17,7	50	1600	012 905	023 657
HFXS 32	32,0	24,3	25	675	012 906	023 658
HFXS 40	40,0	30,2	25	500	012 907	023 659
HFXS 50	50,0	39,0	25	300	012 908	023 660
HFXS 63	63,0	50,5	25	175	025 054	023 661

Application: For applications requiring high flexibility and oil resistance such as machine construction, automotive industry, robotics etc.

Rigid HFT® Conduits

Light Gauge (320 N)

HFIRM Turbo, halogen-free rigid conduit light gauge, with moulded-on coupler and sectional corrugation; light grey (RAL 7035), in 3m standard length

Material     
 PP-Blend LSF0H EN 2243 > 320 N - -25°C/+105°C
In accordance with: IEC/EN 61386-21 (replaces IEC 60614-2-2, BS 6099), IEC 60423, EN 50642, LSF0H

art	dn	di	ps [m]	pl [m]	ref
HFIRM Turbo 16	16,0	12,9	111	6216	087 215
HFIRM Turbo 20	20,0	16,2	111	3996	087 216
HFIRM Turbo 25	25,0	21,0	57	2280	087 217
HFIRM Turbo 32	32,0	28,0	57	1368	087 218
HFIRM Turbo 40	40,0	35,0	21	966	102 952
HFIRM Turbo 50	50,0	45,0	21	630	102 953



HFIR Turbo, halogen-free rigid conduit light gauge, plain ends, with sectional corrugation (dim 16-32); white (RAL 9010), in 3m standard length

Material     
 PP-Blend LSF0H EN 2243 > 320 N - -25°C/+105°C
In accordance with: IEC/EN 61386-21 (replaces IEC 60614-2-2, BS 6099), IEC 60423, EN 50642, LSF0H

art	dn	di	ps [m]	pl [m]	ref
HFIR Turbo 16	16,0	12,9	111	6120	087 178
HFIR Turbo 20	20,0	16,2	111	4080	087 179
HFIR Turbo 25	25,0	21,0	57	2400	087 180
HFIR Turbo 32	32,0	28,0	57	1350	087 181
HFIR Turbo 40	40,0	35,0	21	1020	103 797
HFIR Turbo 50	50,0	45,0	21	630	103 798



Medium Gauge (750 N)

HFPRM Turbo, halogen-free rigid conduit medium gauge, with moulded-on coupler and sectional corrugation; light grey (RAL 7035) or black (RAL 9005, UV-stabilised), in 3m standard length

Material



PP-Blend

LSFOH

EN 3343

> 750 N

△ *

-25°C/+105°C

In accordance with: IEC/EN 61386-21 (replaces IEC 60614-2-2, BS 6099), IEC 60423, EN 50642, LSF0H



art	dn	di	ps [m]	pl [m]	ref	
					light grey	black *
HFPRM Turbo 16	16,0	11,0	111	6216	087 223	087 219
HFPRM Turbo 20	20,0	15,0	111	3996	087 224	087 220
HFPRM Turbo 25	25,0	20,0	57	2280	087 225	087 221
HFPRM Turbo 32	32,0	26,7	57	1368	087 226	087 222
HFPRM Turbo 40	40,0	34,0	21	966	098 784	098 781
HFPRM Turbo 50	50,0	43,5	21	630	098 785	098 782
HFPRM Turbo 63	63,0	55,5	21	378	098 786	098 783

Heavy Gauge (1250 N)

HFBS Turbo, halogen-free rigid conduit heavy gauge, plain ends; black (RAL 9005), in 3m standard length

Material



PP-Blend

LSFOH

EN 4424

> 1250 N

✓

-25°C/+120°C

In accordance with: IEC/EN 61386-21 (replaces IEC 60614-2-2, BS 6099), IEC 60423, EN 50642, LSF0H



art	dn	di	ps [m]	pl [m]	ref
HFBS Turbo 16	16,0	10,2	111	6216	099 870
HFBS Turbo 20	20,0	14,4	111	3996	099 871
HFBS Turbo 25	25,0	18,5	57	2280	099 872
HFBS Turbo 32	32,0	25,4	57	1368	099 873
HFBS Turbo 40	40,0	33,0	21	966	099 874
HFBS Turbo 50	50,0	43,1	21	630	099 875

Accessories

HFCL, clip, halogen-free, interlinkable; light grey (RAL 7035), black (RAL 9005) or white (RAL 9010), for mounting with plug DSD or screws with Ø 4mm

Material  
PC-Blend halogen-free -25°C/+105°C

art	dn	ps	pl	ref		
				light grey	black	white
HFCL 16	16,0	100	3200	041 428	009 634	038 596
HFCL 20	20,0	100	2400	041 016	009 635	037 041
HFCL 25	25,0	100	1600	041 429	009 636	038 597
HFCL 32	32,0	100	1600	041 430	009 637	038 598
HFCL 40	40,0	50	800	041 431	009 638	038 599
HFCL 50	50,0	50	600	041 432	009 639	038 600
HFCL 63	63,0	25	300	041 433	021 168	-



HFCLB, bracket; light grey (RAL 7035) or black (RAL 9005), for HFCL clips

Material  
PC-Blend halogen-free -25°C/+105°C

art	dn	ps	pl	ref	
				light grey	black
HFCLB 40	40,0	250	8000	080 803	023 080
HFCLB 50	50,0	200	6400	080 804	023 081
HFCLB 63	63,0	150	4800	102 989	023 082



DSD, plug, halogen-free; light grey (RAL 7035), for quick and efficient mounting of HFCL clips, required fixing hole size Ø 6mm (gas concrete Ø 5.5mm)

Material  
PA halogen-free -25°C/+90°C

art	ln	ps	pl	ref
DSD 35	35mm	500	16000	082 226



KM Turbo, grip type coupler, chlorine-free or halogen-free, for pliable conduits; light grey (RAL 7035), grey (RAL 7001), black (RAL 9005) or orange (RAL 2004), waterproof and tight conduit connector for use in concrete, IP 67

Material			
PE	halogen-free* chlorine-free	IP 67	-25°C/+90°C



art	dn	ps	pl	ref			
				light grey	grey	black	orange*
KM Turbo 16	16,0	100	1200	085 725	085 724	085 726	085 723
KM Turbo 20	20,0	100	800	083 837	083 838	084 051	080 642
KM Turbo 25	25,0	50	600	083 839	083 840	084 052	080 643
KM Turbo 32	32,0	25	300	085 924	085 923	085 926	085 925
KM Turbo 40	40,0	25	200	102 331	102 342	102 335	102 338
KM Turbo 50	50,0	15	120	102 332	102 343	102 336	102 339
KM Turbo 63	63,0	8	64	102 333	102 344	102 337	102 340

HFSM, slip type coupler; light grey (RAL 7035), black (RAL 9005) or white (RAL 9010), for the connection of rigid or pliable conduits

Material		
PC-Blend	halogen-free	-25°C/+90°C



art	dn	ps	pl	ref		
				light grey	black	white
HFSM 16	16,0	100	1200	041 421	020 556	038 571
HFSM 20	20,0	100	800	041 017	020 557	037 036
HFSM 25	25,0	50	600	041 422	020 558	038 572
HFSM 32	32,0	25	300	041 423	020 559	038 573
HFSM 40	40,0	25	200	041 424	020 652	038 574
HFSM 50	50,0	15	120	041 425	020 653	038 575
HFSM 63	63,0	8	64	041 426	020 654	041 420

HFSB, normal bend, slip type; light grey (RAL 7035), black (RAL 9005) or white (RAL 9010), for the connection of rigid conduits in an angle of 90°

Material		
PC-Blend	halogen-free	-25°C/+90°C



art	dn	ps	pl	ref		
				light grey	black	white
HFSB 16	16,0	50	600	065 492	020 825	038 576
HFSB 20	20,0	25	300	065 493	020 826	038 577
HFSB 25	25,0	20	160	065 494	020 827	038 578
HFSB 32	32,0	50	-	065 495	020 828	038 579
HFSB 40	40,0	35	-	065 496	020 829	038 580
HFSB 50	50,0	20	-	065 497	020 830	038 581
HFSB 63	63,0	8	-	065 498	027 261	-

HFS, saddle, with two fixing holes; light grey (RAL 7035), black (RAL 9005) or white (RAL 9010), for mounting with screws Ø 4mm

Material  
PC-Blend halogen-free -25°C/+90°C

art	dn	ps	pl	ref		
				light grey	black	white
HFS 16	16,0	100	3200	080 811	020 832	041 831
HFS 20	20,0	50	1600	080 812	020 833	041 832
HFS 25	25,0	100	1600	080 813	020 834	041 833
HFS 32	32,0	100	800	080 814	020 835	041 834
HFS 40	40,0	50	400	080 815	020 836	041 835
HFS 50	50,0	50	400	080 816	020 837	041 836
HFS 63	63,0	25	200	080 817	020 838	-



HFSBS, spacer bar saddle; black (RAL 9005) or white (RAL 9010)

Material  
PC-Blend halogen-free -25°C/+90°C

art	dn	ps	pl	ref	
				black	white
HFSBS 16	16,0	100	2400	009 628	041 852
HFSBS 20	20,0	50	1200	009 629	037 033
HFSBS 25	25,0	50	1200	009 630	041 621
HFSBS 32	32,0	50	600	009 631	041 853
HFSBS 40	40,0	25	300	009 632	041 854
HFSBS 50	50,0	25	200	009 633	041 855



HFIB, inspection bend; black (RAL 9005), for rigid conduits

Material  
PC-Blend halogen-free -25°C/+90°C

Ordering Note: light grey or white version available on request

art	dn	ps	pl	ref
HFIB 20	20,0	50	400	009 643
HFIB 25	25,0	20	240	009 644



HFIE, inspection elbow; black (RAL 9005), for rigid conduits

Material  
PC-Blend halogen-free -25°C/+90°C

Ordering Note: light grey or white version available on request

art	dn	ps	pl	ref
HFIE 20	20,0	50	400	026 968
HFIE 25	25,0	20	240	026 969
HFIE 32	32,0	25	200	104 457



HFIT, inspection tee; light grey (RAL 7035) or black (RAL 9005), for rigid conduits

Material  
 PC-Blend halogen-free -25°C/+90°C.

Ordering Note: light grey or white version available on request



art	dn	ps	pl	ref	
				light grey	black
HFIT 20	20,0	50	400	082 561	009 640
HFIT 25	25,0	20	240	082 562	009 641
HFIT 32	32,0	10	80	-	104 456

HFAFT/MBS, adaptor with female thread and male bush; black (RAL 9005) or white (RAL 9010), for the connection of rigid or pliable conduits with distribution and enclosure boxes

Material  
 PC-Blend halogen-free -25°C/+90°C

Ordering Note: available in light grey colour on request



art	dn	ps	pl	ref	
				black	white
HFAFT/MBS 16	16,0	100	2400	009 673	064 493
HFAFT/MBS 20	20,0	100	1200	009 674	037 043
HFAFT/MBS 25	25,0	50	600	009 675	041 465
HFAFT/MBS 32	32,0	20	480	009 676	064 271
HFAFT/MBS 40	40,0	25	300	009 677	-
HFAFT/MBS 50	50,0	10	120	009 678	-

HFAMT/LR, adaptor with male thread and lock ring; black (RAL 9005), for the connection of pliable conduits with distribution and enclosure boxes

Material  
 PC-Blend halogen-free -25°C/+90°C

Ordering Note: available in light grey or white colour on request



art	dn	ps	pl	ref
HFAMT/LR 20	20,0	100	1200	009 680
HFAMT/LR 25	25,0	50	600	009 681

HFAMT/LN, adaptor with male thread and lock nut; black (RAL 9005), for the connection of rigid or pliable conduits with distribution and enclosure boxes

Material  
 PC-Blend halogen-free -25°C/+90°C

Ordering Note: available in light grey or white colour on request



art	dn	ps	pl	ref
HFAMT/LN 20	20,0	100	1200	020 843
HFAMT/LN 25	25,0	50	600	020 844

FPE, end cap, halogen-free; light grey (RAL 7035) or black (RAL 9005), for the protection of cables at conduit edges

Material 
PE halogen-free

art	dn	ps	ref	
			black	light grey
FPE 16	16,0	100	-	061 664
FPE 20	20,0	100	035 425	064 849
FPE 25	25,0	50	035 426	064 850
FPE 32	32,0	25	035 427	064 851
FPE 40	40,0	25	035 428	064 852
FPE 50	50,0	20	035 429	064 853
FPE 63	63,0	20	035 430	064 854



SGL, straight gland, halogen-free; black (RAL 9005, UV stabilised) or grey (RAL 7001), patented plug-in system for quick-fit assembly, tight connection, with metric thread, acc. to IEC/EN 60423

Material   
PA halogen-free IP 54 -25°C/+105°C

Ordering Note: available with Pg or NPT thread on request

art	dn	ps	pl	ref	
				black	grey
SGL 1212	13,0	100	3200	027 797	016 440
SGL 1616	16,0	100	2400	027 798	012 699
SGL 2020	20,0	50	1200	027 799	012 700
SGL 2525	25,0	50	600	027 800	012 701
SGL 3232	32,0	30	360	027 801	012 702
SGL 4040	40,0	20	240	027 802	015 509
SGL 5050	50,0	16	128	027 803	015 508
SGL 6363	63,0	8	64	027 804	043 075



Material   
PA halogen-free IP 65 -25°C/+105°C

Ordering Note: available with Pg or NPT thread on request

art	dn	ps	pl	ref	
				black	grey
SGL 1212 S	13,0	100	3200	043 067	023 615
SGL 1616 S	16,0	100	2400	043 068	012 707
SGL 2020 S	20,0	50	1200	043 069	012 708
SGL 2525 S	25,0	50	600	043 070	012 709
SGL 3232 S	32,0	30	360	043 071	012 710
SGL 4040 S	40,0	20	240	043 073	015 914
SGL 5050 S	50,0	16	128	043 074	015 915
SGL 6363 S	63,0	8	64	043 077	043 076



SLN, lock nut; black (RAL 9005, UV stabilised) or grey (RAL 7001), with metric thread acc. to IEC/EN 60423

Material
PA



halogen-free



-25°C/+105°C



art	dn	ps	pl	ref	
				black	grey
SLN 12	12,0	100	-	061 137	081 534
SLN 16	16,0	200	8000	026 257	014 206
SLN 20	20,0	200	6400	026 256	013 277
SLN 25	25,0	100	4000	026 255	013 278
SLN 32	32,0	100	2400	026 254	013 279
SLN 40	40,0	30	1200	026 053	015 916
SLN 50	50,0	25	1000	026 054	017 307
SLN 63	63,0	20	480	027 590	027 589

PKG H, enclosure box, surface type, halogen-free; light grey (RAL 7035), black (RAL 9005, UV stabilised) or white (RAL 9010), suitable for damp locations, jetting water tight, IP 65

In accordance with: IEC/EN 60670

Material



PC-Blend

halogen-free



IP 65



-25°C/+105°C

without knock-out conduit entries



art	dim	ps	pl	ref		
				light grey	black	white
PKG H 100 OP	105x105x64mm	5	50	023 760	000 528	037 325
PKG H 200 OP	200x150x85mm	2	12	023 761	010 685	037 326
PKG H 300 OP	300x200x125mm	1	4	023 762	013 019	065 716

J, junction box for surface mounting, halogen-free; light grey (RAL 7035), other colours available on request

Material			
PP	halogen-free	IP 65*/66	-15°C/+90°C

In accordance with: IEC/EN 60670-1, EN60670-22, EN60695-2-10, EN60754-1

art	inlets	dim	ps	pl	ref
J80B AP	7	85x85x55mm	5	120	105 641
J100B AP	7	100x100x55mm	6	90	105 643
J160B AP	10	155x100x70mm	1	56	105 851
J200B AP	10	200x155x85mm	1	20	105 852

*) J80B



HFCB, circular junction box, halogen-free; black (RAL 9005, UV stabilised), with 2 mounting lugs, standard mounting screw spacing 50.8mm (2") for conduit diameters 16mm to 25mm resp. 65mm for conduit diameter 32mm, with brass inserts M 4, without lid

Material			
PC-Blend	halogen-free	IP 3X	-25°C/+90°C

Ordering Note: other colours available on request

terminal box

art	dim	ps	pl	ref
HFCB 20/1	Ø 65mm, 32mm	25	200	009 646
HFCB 25/1	Ø 65mm, 32mm	25	200	009 647
HFCB 32/1	Ø 80mm, 40mm	10	80	009 648



through box

art	dim	ps	pl	ref
HFCB 20/2	Ø 65mm, 32mm	25	200	009 650
HFCB 25/2	Ø 65mm, 32mm	25	200	009 651
HFCB 32/2	Ø 80mm, 40mm	10	80	009 652



angle box

art	dim	ps	pl	ref
HFCB 20/A	Ø 65mm, 32mm	25	200	009 654
HFCB 25/A	Ø 65mm, 32mm	25	200	009 655
HFCB 32/A	Ø 80mm, 40mm	10	80	009 656



tee box

art	dim	ps	pl	ref
HFCB 20/3	Ø 65mm, 32mm	25	200	009 658
HFCB 25/3	Ø 65mm, 32mm	20	160	009 659
HFCB 32/3	Ø 80mm, 40mm	10	80	009 660



intersection box



art	dim	ps	pl	ref
HFCB 20/4	Ø 65mm, 32mm	20	160	009 662
HFCB 25/4	Ø 65mm, 32mm	10	120	009 663
HFCB 32/4	Ø 80mm, 40mm	8	64	009 664

circular junction box



art	dim	ps	pl	ref
HFCB 20/2 U	Ø 65mm, 32mm	20	160	097 986
HFCB 25/2 U	Ø 65mm, 32mm	20	160	097 988

circular junction box



art	dim	ps	pl	ref
HFCB 20/2 Y	Ø 65mm, 32mm	20	160	097 987
HFCB 25/2 Y	Ø 65mm, 32mm	20	160	097 989

circular junction box



art	dim	ps	pl	ref
HFCB 20/2 H	Ø 65mm, 32mm	20	160	097 991
HFCB 25/2 H	Ø 65mm, 32mm	20	160	097 992

HFCBL, circular box lid, halogen-free; black (RAL 9005), for screw fixing

Material



PC-Blend

halogen-free



IP 3X



-25°C/+90°C

Ordering Note: other colours available on request

art	dim	ps	pl	ref
HFCBL 16-25	Ø 65mm	100	2400	009 665
HFCBL 32	Ø 80mm	100	1200	009 666

DSL, plug, halogen-free; light grey (RAL 7035), for fixing cables with zipties.

Material
PP


halogen-free


-25°C/+90°C

art	ln	ps	pl	ref
DSL 35 HG	35mm	100	12000	104 550



KH, cable holder; light grey (RAL 7035), halogen-free, for the aligned installation of sheathed cables

Material
PS


halogen-free


-25°C/+90°C

art	dim	ps	pl	ref
KH-1 HG	100 x 10 x 3 mm	50	1000	103 496
KH-2 HG	200 x 10 x 3 mm	50	500	103 497



KSH, multi cable brackets; light grey (RAL 7035), halogen-free, for the fixing and holding of surface cables in walls and ceilings

Material
PP


halogen-free


-25°C/+90°C

art	dim	ps	pl	ref
KSH 15 GR/EX	100 x 10 x 3 mm	25	250	103 962
KSH 30 GR/EX	200 x 10 x 3 mm	15	150	103 963



Application:

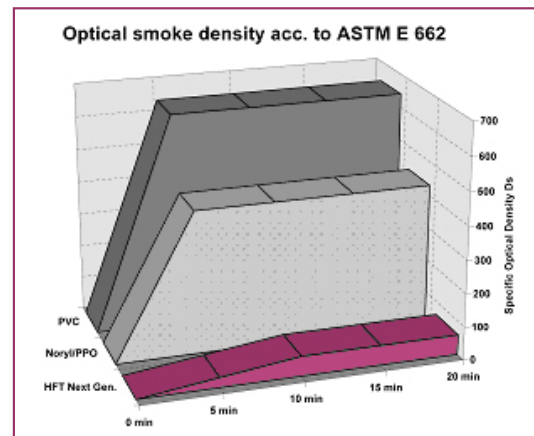


HFT® Conduits Next Generation

One of the most important arguments for the use of HFT conduits is their characteristic in emergency situations. Exposed to fire these special materials release 90 % less smoke compared to PVC and 80 % less compared to conventional halogen-free materials. By this safety is increased in two ways:

- **People's Safety:** in case of fires the orientation will not be affected by intense smoke release, this eases the evacuation of buildings considerably. Additionally, physical health is not threatened by toxic gases which reduces the risk of suffocation.
- **Asset Protection:** the gases released do not form chemical compounds with other substances.

Sensitive technologies, like IT systems, will not be damaged which guarantees that business operations can continue, especially in cases of smaller fires. Both results in much lower consequential costs related to business interruptions and repairs.



Lowest smoke density in plastic installation materials, flame retardant and insulating!

Details about HFT®

HFT® is a registered trademark and refers to installation systems with improved properties compared to conventional cable management. The halogen-free materials used for the production do not contain toxic or corrosive substances thus meeting the increased safety requirements of modern applications. Sourcing and processing the most appropriate and advanced raw materials are a key competence of our technical team.

Further benefits of UNIVOLT's LSF0H conduits

The new LSF0H series offers considerable improvements in addition to the existing advantages of our conduits:

- absolute resistance against oils, fats, acids, lyes, etc.
- especially suitable for installations in concrete
- bendable in cold condition
- smoke density reduced up to 90% compared to PVC
- UV-stabilised
- easy to install
- better than steel

Cable protection with HFT Univolt products

is not only a vital contribution to the safety of human lives, it also minimises conduction losses, ensures the smooth operation of sensitive technologies, prevents additional costs for repairs and complies with current international standards.

Projects: HFT® installation systems worldwide

Areas of application

HFT® systems are ideally suited for installations with an emphasis on the protection of human lives and valuable assets:

- high technology industrial plants, water treatment plants
- power plants, oil refineries and oil rigs, laboratories
- railway and underground systems, tunnels, parking houses
- elevators and emergency plants, transmitting stations
- hospitals, schools, hotels, shopping centres
- sports stadiums, conference and event centres
- museums, theatres, libraries, cultural monuments
- computing and telecommunication centres
- airports, railway stations
- automobiles, ships, aircrafts, trains
- air sampling systems
- robotic systems and sensitive machinery



Hospital Godstrup, Denmark



Omantel Headquarter, Oman



Four Seasons, Baku



Belgrade on Water, Serbia



Airports



Sports arenas



High-tech facilities



Railway stations



Oil rigs



Event centres

Classification Codes according to EN/IEC 61386: Conduit Systems

Codification Number	Digit of the Classification Code						
	1	2	3	4	5	6	
	Compression resistance	Impact resistance	Minimum temperature resistance	Maximum temperature resistance	Resistance to bending	Electrical properties	
0	none declared	none declared	none declared	none declared		none declared	
1	125N	0,5J	+5°C	+60°C			
	very light	very light			rigid	conductive	
2	320 N	1J	-5°C	+90°C			
	light	light			pliable	insulating	
3	750 N	2J	-15°C	+105°C			
	medium	medium			pliable, self recovering	conductive and insulating	
4	1250 N	6J	-25°C	+120°C			
	heavy	heavy			flexible		
5	4000 N	20,4J	-45°C	+150°C			
	very heavy	very heavy					
6				+250°C			
7				+400°C			

Example: HFXP EN 3343

The four digit code refers to the classification which can be found under each individual article in this catalogue. (see also explanation on the right).

Digit of the Classification Code							
	7	8	9	10	11	12	13
	Resistance to ingress of solid objects	Protection against ingress of water	Corrosion resistance	Tensile strength	Resistance to flame propagation	Suspended load capacity	Fire effects
		non-protected		non declared		none declared	under consideration
				100 N		20 N, 48h	
		dripping water	low inside and outside	very light	non-flame propagating	very light	
				250 N		30 N, 48h	
		dripping water tilted 15°	medium inside and outside	light	flame propagating	light	
	>2,5 mm			500 N		150 N, 48h	
		spraying water	medium inside, high outside	medium		medium	
	>1,0 mm			1000 N		450 N, 48h	
		splashing water	high inside and outside	heavy		heavy	
				2500 N		850 N, 48h	
	dust protected	water jetting		very heavy		very heavy	
	dust tight	powerful water jetting					
		temporary immersion effects					

Symbols: product properties



LSFOH
halogen-free
chlorine-free



classification



compression
resistance



UV-stability



temperature

Chemical Resistance of Plastic Materials

Chemical Substances	°C	Polyvinylchloride					Polyethylene/Polypropylene	Polycarbonate	Polyamide	Polyphenylenether/Polyphenyleneoxide
		PVC	PE/PP	PC	PA	PPE/PPO				
Acetaldehyde, aqueous (40%)	40	!	✓	-	!	!				
Acetic acid (<10%)	40	✓	✓	✓	!	!				
Acetic acid (10% - 85%)	60	✓	✓	-	-	!				
Acetic acid (85% - 95%)	40	✓	✓	-	-	!				
Acetic acid (>95%)	20	✓	✓	-	-	-				
Acetone (traces)	20	-	ü	-	ü	-				
Ammonia, aqueous (20%)	40	✓	ü	-	✓	!				
Ammonia, dry	60	✓	✓	-	ü	!				
Ammonium fluoride (2%)	20	✓	!	!	-	!				
Aniline (saturated)	60	!	-	-	!	-				
Arsenic acid (<20%)	60	✓	✓	✓	!	-				
Beer	60	✓	✓	!	✓	✓				
Benzene	20	-	!	-	ü	-				
Bleaching agent (13%)	40	✓	✓	!	!	✓				
Borax, aqueous	60	✓	✓	!	!	!				
Bromic acid, aqueous (10)	20	✓	✓	-	-	!				
Butane, gaseous		ü	-	✓	✓	!				
Carbonic acid, dry	40	✓	✓	✓	✓	!				
Carbonic acid, dry or humid	40	ü	ü	!	✓	!				
Carbon tetrachloride	20	-	-	-	ü	-				
Carbon disulphide	20	!	!	-	!	-				
Caustic soda (<40%)	40	✓	ü	-	ü	ü				
Caustic soda (40% - 60%)	60	ü	ü	-	ü	ü				
Cement, dry	20	ü	ü	ü	ü	ü				
Cement, mixed	20	✓	✓	-	ü	ü				
Chloric gas, dry or humid	20	!	!	-	-	-				
Chloric water	20	!	-	-	-	-				
Chlorinated hydrocarbons		-	-	-	ü	-				
Chlorosulfuric acid (100%)	20	!	!	-	-	-				
Chromium acid, aqueous (<50%)	50	✓	✓	-	-	-				
Chromium acid (20%)		!	!	✓	-	-				
Chromosulfuric acid (20%)		!	!	-	-	-				
Citric acid (all)	60	✓	✓	✓	✓	!				
Cresol, aqueous (<90%)	45	!	!	-	-	-				
Cupric sulfate (all)	60	✓	✓	✓	!	!				
Diesel oil	20	✓	✓	!	ü	-				
Developer (photographic)	40	✓	✓	!	✓	!				
Dextrine (18%)	20	✓	✓	!	✓	!				
Ester		-	-	-	ü	ü				
Ethyl alcohol, aqueous (<40%)	40	✓	✓	!	✓	✓				
Ethyl ether	20	-	!	!	✓	-				
Fatty acid	20	✓	!	!	✓	!				
Fixing bath	40	✓	✓	!	✓	!				
Fluorochlorinated Hydrocarbons		✓	!	✓	✓	-				
Formaldehyde, aqueous (all)	30	✓	✓	!	✓	-				
Formic Acid (<30%)	40	✓	✓	!	-	!				
Formic Acid (concentrated)	20	✓	✓	-	-	!				
Chemical Substances	°C	Polyvinylchloride					Polyethylene/Polypropylene	Polycarbonate	Polyamide	Polyphenylenether/Polyphenyleneoxide
		PVC	PE/PP	PC	PA	PPE/PPO				
Glycerine, aqueous	60	✓	✓	!	✓	✓				
Hydrochloric acid (weak)	40	✓	✓	!	-	ü				
Hydrochloric acid (concentrated)	60	✓	✓	-	-	!				
Hydrofluorilic acid, aqueous (<32.5%)	60	✓	✓	✓	-	!				
Hydrofluoric acid, aqueous (<40%)	20	✓	ü	-	-	!				
Hydrogen (100%)	60	✓	✓	✓	✓	✓				
Hydrogen peroxide (20%)	20	✓	✓	!	!	-				
Hydrogen sulphide, dry or humid	60	✓	✓	!	!	!				
Hydrogen sulphide, aqueous	40	✓	✓	!	!	!				
Ketone		-	-	-	ü	-				
Lactic acid, aqueous (1%)	40	✓	✓	✓	✓	✓				
Methyl alcohol, aqueous (all)	40	✓	✓	-	ü	ü				
Mineral oil	20	✓	✓	!	✓	!				
Nitric acid (<30%)	40	✓	✓	-	-	!				
Nitric acid (30% - 45%)	45	✓	✓	-	-	-				
Nitric acid (50% - 60%)	20	✓	!	-	-	-				
Nitric gases, dry or humid (weak)	60	!	!	-	!	!				
Oils and Fats (vegetable and organic)	60	✓	✓	-	ü	-				
Oxalic acid, aqueous (10%)	40	✓	✓	✓	!	!				
Oxalic acid, aqueous (concentrated)	60	✓	✓	-	-	!				
Oxygen	60	✓	✓	!	✓	✓				
Ozone	20	✓	!	-	!	!				
Permanganate (<6%)	20	✓	✓	!	-	!				
Petrol, Normal/Premium	60	✓	!	-	ü	-				
Petroleum	20	✓	✓	!	✓	-				
Phenol, aqueous (<90%)	45	!	!	-	-	-				
Phosphoric acid, aqueous (<30%)	40	✓	✓	-	-	!				
Phosphoric acid, aqueous (<30%)	60	✓	✓	-	-	!				
Potash lye, aqueous (<40%)	40	ü	ü	-	ü	ü				
Potash lye (40% - 50%)	60	✓	✓	-	ü	ü				
Potassium sodium lye (<40%)	40	✓	✓	-	ü	ü				
Potassium sodium lye (40% - 50%)	60	✓	✓	-	ü	ü				
Propane, liquid		ü	-	✓	✓	!				
Salt solution (all)	40	✓	✓	✓	✓	✓				
Seawater	40	✓	✓	!	✓	✓				
Sulfur dioxide, aqueous (all)	40	✓	✓	!	!	!				
Sulfuric acid, dry or humid (all)	60	✓	✓	!	!	!				
Sulfuric acid, aqueous (<40%)	40	✓	✓	!	-	ü				
Sulfuric acid, aqueous (40% - 80%)	60	ü	ü	-	-	!				
Sulfuric acid, aqueous (80% - 90%)	40	✓	✓	-	-	!				
Sulfuric acid, aqueous (90% - 96%)	20	✓	✓	-	-	!				
Sodium chloride solution (weak)	40	✓	✓	✓	✓	✓				
Tartaric acid (10%)	60	✓	✓	✓	✓	!				
Urine	40	✓	✓	✓	✓	✓				
Water	60	✓	✓	✓	✓	✓				
Xylene (100%)	20	-	!	-	ü	-				
Zinc chloride, aqueous (all)	60	!	✓	!	-	!				
Zinc sulfate, aqueous (weak)	60	✓	✓	!	-	!				

List of Symbols:

- ✓ The parts are resistant against chemical attack under conventional laying conditions
- ! The parts are partially resistant against chemical attack under conventional laying conditions. It is strongly advised to investigate the actual conditions very carefully, resp. to contact UNIVOLT for tests.
- The parts are not resistant against chemical attack.

Why use HFT®?



Safety matters:

- ⇒ higher safety for human lives
- ⇒ better protection of valuable assets
- ⇒ safeguarding continuity of operations



Comprehensive provision and protection:

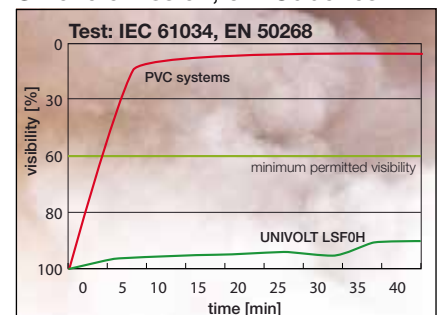
Safety for human lives deserves the highest priority in fire protection matters. Generating less gases and fumes, LSF0H conduits improve orientation and evacuation in case of fires. Additionally, this minimises the danger of intoxication or suffocation which accounts for most casualties.

Protection of valuable assets

is crucial for the prosperity of modern business. Using LSF0H systems reduces the risk of negative impacts on building stock, sensitive technologies and information systems caused by toxic and corrosive gases.

Continuity of operations is an underestimated cost factor. Even minor fires can lead to shutdowns or significant disturbances, which usually result in subsequent costs beyond quantification. Meanwhile, several industries have recognised the importance of this issue and apply LSF0H criteria for their installations.

Smoke emission, 3m Cube Test



Dramatically less smoke formation: UNIVOLT LSF0H conduits top IEC 61034 tests with excellent results.

If human lives are at risk,
there is no second chance.



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