

# Evolv<sup>™</sup> Hardened Connectivity (HC) Solution with Pushlok<sup>™</sup> Technology

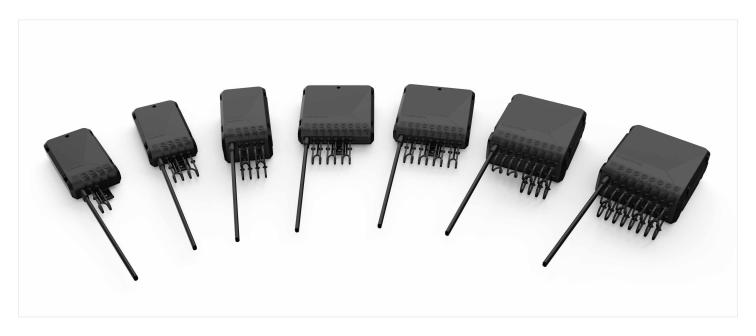


Pushlok<sup>™</sup> hardened connector technology is the key component enabling smaller terminals and drops for FTTx networks than ever before. Designed for use in nearly every access network environment, the terminal is small enough to be placed in existing handholes or pedestals where space is paramount, on building façades, or in aerial networks (pole- or strand-mount). Improved aesthetics improve end-user adoption for façade applications.

Features	Benefits
Reduced diameter	The small-form-factor of the connector (half the size of the OptiTap*) enables terminals up to 4x smaller significantly reducing new infrastructure pathway costs or enabling reuse of existing infrastructure assets
Dual-compatibility	Eliminate SKU complexity with OptiTap and SC convertible accessories
"Stick and click" mating	Field-friendly connector mating allows technicians to push, click, and connect without fear of over- or under-tightening traditional threaded ports in a fraction of the time
Future-ready	Beyond traditional buried or aerial deployments, the terminals are able to be placed on street furniture, inside lamppost monopoles, on building façades and more where traditional terminals wouldn't fit or be aesthetically appealing
Durability	Tested to Telcordia GR-3120 which includes freeze/thaw, immersion, crush, humidity, and sealing tests among others to subject the connector to virtually any and all challenges it may face in a real-world deployment.  It is also rated to IP68, defined by the IEC and used by the National Electrical Manufactures Association (NEMA) to indicate its uninterrupted performance in high-pressure immersion environments.



# Evolv<sup>™</sup> HC Terminals with Pushlok<sup>™</sup> Technology



There are two styles of terminals designed to meet various space and density requirements: terminals with one row of adapter ports and terminals with two rows of adapter ports. For terminals with one row of adapter ports, the ports are aligned in a single row with the input stub on the left and 2-, 4-, 6- or 8-distribution ports on the right. For terminals with two rows of ports, the input stub is on the font left of the terminal and there are 8-, 12- or 16-distribution ports. Each port's corresponding release button is actuated to remove the dust cap or drop. When installing drops, the keyed ports provide an audible and physical positive feedback minimizing technician variation and potential damage due to mishandling.

Features	Benefits
Pushlok cable assembly connector ports for customer drop terminations	Lower installation cost and increase speed of connection
Standard and integrated splitter terminal options	Solution supports various architecture types
Durability	100 lb cable tensile strength
Available stubbed or preterminated with OptiTip* multifiber technology	Compatible with existing FlexNAP <sup>™</sup> installations
Small-form-factor optimizes space in pedestals/handholes	Lower profile overall with drop entry ports on bottom
Ultrasonically welded housing	Eliminates water ingress potential and prevents unwanted entry in the field
Factory-terminated polished connectors	Eliminates loss associated with excess fusion splices

Standards	
Telcordia	Designed to Telcordia GR-771-CORE, Issue 1

Mechanical Specifications						
Terminal Type	Dimensions (L x W x H)	Weight				
2-Distribution Port Terminal (One Row of 4 Ports, 2 Filled)	15.4 x 8.4 x 3.0 cm (6.06 x 3.29 x 1.18 in)	0.195 kg (0.43 lb)				
4-Distribution Port Terminal (One Row of 4 Ports)	15.4 x 8.4 x 3.0 cm (6.06 x 3.29 x 1.18 in)	0.195 kg (0.43 lb)				
6-Distribution Port Terminal (One Row of 8 Ports, 2 Filled)	15.4 x 13.4 x 3.0 cm (6.06 x 5.29 x 1.18 in)	0.390 kg (0.86 lb)				
8-Distribution Port Terminal (One Row of 8 Ports)	15.4 x 13.4 x 3.0 cm (6.06 x 5.29 x 1.18 in)	0.390 kg (0.86 lb)				
8-Distribution Port Terminal (Two Rows of 4 Ports)	15.4 x 8.4 x 5.8 cm (6.06 x 3.29 x 2.30 in)	0.400 kg (0.88 lb)				
12-Distribution Port Terminal (Two Rows of 8 Ports, 4 Filled)	15.4 x 13.4 x 5.8 cm (6.06 x 5.29 x 2.30 in)	0.600 kg (1.32 lb)				
16-Distribution Port Terminal (Two Rows of 8 Ports)	15.4 x 13.4 x 5.8 cm (6.06 x 5.29 x 2.30 in)	0.600 kg (1.32 lb)				

Optical Specifications					
Connector Type	Fiber Type	Insertion Loss, Maximum	Insertion Loss, Typical	Reflectance, Maximum	
Pushlok <sup>™</sup> Connector	Single-mode (OS2)	0.50 dB	0.15 dB	-0.65 dB	
OptiTap® Multifiber Connector	Single-mode (OS2)	0.50 dB	0.35 dB	-0.65 dB	

Packaging Packaging					
Cable Stub Length	Dimensions (L x W x H)	Packaging Method			
Cables ≤ 350 ft	152 x 762 x 762 mm (6 x 30 x 30 in)	Box			
Cables ≥ 350 ft	846 x 178 x 846 mm (33 x 7 x 33 in)	Reel			

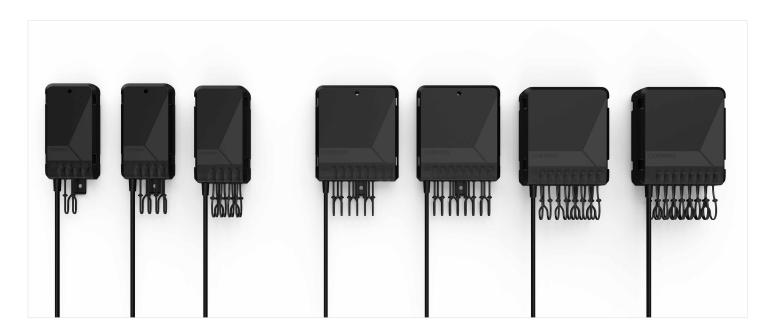
# Evolv<sup>™</sup> HC Splitter Terminals with Pushlok<sup>™</sup> Technology



### Ordering Information

Splitter Terminals				
Part Number	Product Description			
DSH4F100D1NC000S0P	Evolv" HC Splitter Terminal with Pushlok" Technology, 4 port, unstubbed, 1x4 splitter			
DSF8F100D1NC000S0P	Evolv HC Splitter Terminal with Pushlok Technology, 8 port, unstubbed, 1x8 splitter			
DSB8F100D1NC000S0P	Evolv HC Splitter Terminal with Pushlok Technology, 8 port, unstubbed, 1x8 splitter, 2 rows of 4 ports			
DSP6F100D1NC000S0P	Evolv HC Splitter Terminal with Pushlok Technology, 16 port, unstubbed, 1x16 splitter, 2 rows of 8 ports			

# Evolv<sup>™</sup> HC Stubbed Terminals with Pushlok<sup>™</sup> Technology



Stubbed Terminals — S	Stubbed Terminals — See Additional Configurations on Page 6			
Part Number	Product Description			
DMA2F1TDD1NC010F0P	Evolv <sup>™</sup> HC Terminal with Pushlok <sup>™</sup> Technology, 2 port, stubbed, SST toneable, 10 ft			
DMA4F1FDD1NC050F0P	Evolv HC Terminal with Pushlok Technology, 4 port, stubbed, SST dielectric, 50 ft			
DMA6F1TDD1NC100F0P	Evolv HC Terminal with Pushlok Technology, 6 port, stubbed, SST toneable, 100 ft			
DMA8F1FDD1NC500F0P	Evolv HC Terminal with Pushlok Technology, 8 port, stubbed, SST dielectric, 500 ft			
DMB4F1TDD1NC010F0P	Evolv HC Terminal with Pushlok Technology, 8 port, 2 rows of 4 ports, stubbed, SST toneable, 10 ft			
DMB6F1TDD1NC010F0P	Evolv HC Terminal with Pushlok Technology, 12 port, 2 rows of 8 ports (4 filled), stubbed, SST dielectric, 50 ft			
DMB8F1FDD1NC500F0P	Evolv HC Terminal with Pushlok Technology, 16 port, 2 rows of 8 ports, stubbed, SST dielectric, 500 ft			
DMA2F1MLD1NC010F0P	Evolv HC Terminal with Pushlok Technology, 2 port, stubbed, MiniXtend*, 10 ft			
DMA4F1MLD1NC050F0P	Evolv HC Terminal with Pushlok Technology, 4 port, stubbed, MiniXtend, 50 ft			
DMA6F1MLD1NC100F0P	Evolv HC Terminal with Pushlok Technology, 6 port, stubbed, MiniXtend, 100 ft			
DMA8F1MLD1NC500F0P	Evolv HC Terminal with Pushlok Technology, 8 port, stubbed, MiniXtend, 500 ft			
DMB4F1MLD1NC010F0P	Evolv HC Terminal with Pushlok Technology, 8 port, 2 rows of 4 ports, stubbed, MiniXtend, 10 ft			
DMB6F1MLD1NC010F0P	Evolv HC Terminal with Pushlok Technology, 12 port, 2 rows of 8 ports (4 filled), stubbed, MiniXtend, 50 ft			

### **Ordering Information**



Select number of Pushlok<sup>™</sup> single-fiber connector ports

> A2 = 2 portsB4 = 8 ports (2 rows of 4 ports) B6 = 12 ports (2 rows of 8 ports, 4 filled) A4 = 4 portsB8 = 16 ports (2 rows of 8 ports)\* A6 = 6 portsA8 = 8 ports \*only available with MiniXtend

Defines connector type

F1 = Single-fiber per port

3 Select cable type

> FD = SST flat dielectric drop cable TD = SST flat toneable drop cable ML = MiniXtend° loose tube cable

- Defines port connector type D1 = Single-fiber Pushlok SC APC
- Defines tail connector type NC = Not connectorized

6 Select cable stub length

> 10 ft increments up to 3,400 ft available. See Table A for lengths  $\geq$  1000 ft.

Select unit length

M = Meters

Select packaging

P = Standard spool — individual packaging Z = Reverse spool — individual packaging

B = Bulk packaging

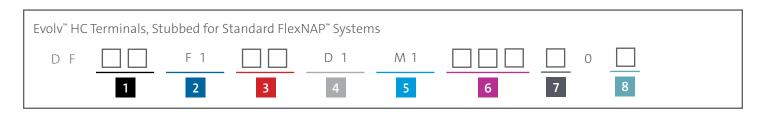
Table	A: <i>A</i>	Alpha co	des for le	ngt	hs ≥ 100	0 ft		
A00	=	1000	K00	=	1900	T00	=	2800
В00	=	1100	L00	=	2000	U00	=	2900
C00	=	1200	M00	=	2100	V00	=	3000
D00	=	1300	N00	=	2200	W00	=	3100
E00	=	1400	000	=	2300	X00	=	3200
FOO	=	1500	P00	=	2400	Y00	=	3300
G00	=	1600	Q00	=	2500	Z00	=	3400
H00	=	1700	R00	=	2600			
100	=	1800	S00	=	2700			

# Evolv<sup>™</sup> HC Stubbed Terminals with Pushlok<sup>™</sup> Technology for FlexNAP<sup>™</sup> Systems



Stubbed Terminals for	Stubbed Terminals for FlexNAP Systems — See Additional Configurations on Page 8				
Part Number	Product Description				
DFA2F1FDD1M1050F0P	Evolv" HC Terminal with Pushlok" Technology, 2 port, preconnectorized OptiTip° stub, SST dielectric, 50 ft				
DFA4F1FDD1M1100F0P	Evolv HC Terminal with Pushlok Technology, 4 port, preconnectorized OptiTip stub, SST dielectric, 100 ft				
DFA6F1FDD1M1100F0P	Evolv HC Terminal with Pushlok Technology, 6 port, preconnectorized OptiTip stub, SST dielectric, 100 ft				
DFA8F1FDD1M1500F0P	Evolv HC Terminal with Pushlok Technology, 8 port, preconnectorized OptiTip stub, SST dielectric, 500 ft				
DFB4F1FDD1M1050F0P	Evolv HC Terminal with Pushlok Technology, 8 port, 2 rows of 4 ports, preconnectorized OptiTip stub, SST dielectric, 50 ft				
DFB6F1FDD1M1100F0P	Evolv HC Terminal with Pushlok Technology, 12 port, 2 rows of 8 ports (4 filled), preconnectorized OptiTip stub, SST dielectric, 100 ft				

### **Ordering Information**



1 Select number of Pushlok<sup>™</sup> single-fiber connector ports

A2 = 2 ports

B4 = 8 ports (2 rows of 4 ports)

A4 = 4 ports

B6 = 12 ports (2 rows of 8 ports, 4 filled)

A6 = 6 ports

A8 = 8 ports

- 2 Defines connector type
  - F1 = Single-fiber per port
- 3 Select cable type

FD = SST flat dielectric drop cable

TD = SST flat toneable drop cable

4 Defines port connector type

D1 = Single-fiber Pushlok SC APC

5 Defines tail connector type

M1 = OptiTap® connector

6 Select cable stub length

10 ft increments up to 3,400 ft available. See Table A for lengths  $\geq$  1000 ft.

7 Select unit length

F = Feet

M = Meters

8 Select packaging

P = Standard spool — individual packaging

Z = Reverse spool — individual packaging

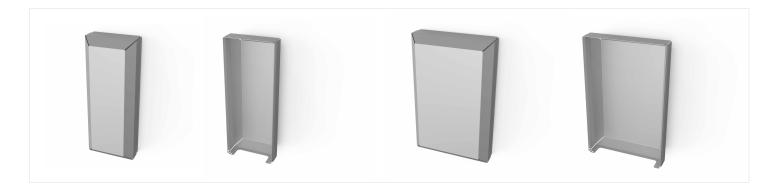
B = Bulk packaging

Table	: A: A	Alpha cod	des for le	ngt	:hs ≥ 100	00 ft		
A00	=	1000	K00	=	1900	T00	=	2800
B00	=	1100	L00	=	2000	U00	=	2900
C00	=	1200	M00	=	2100	V00	=	3000
D00	=	1300	N00	=	2200	W00	=	3100
E00	=	1400	000	=	2300	X00	=	3200
F00	=	1500	P00	=	2400	Y00	=	3300
G00	=	1600	Q00	=	2500	Z00	=	3400
H00	=	1700	ROO	=	2600			
100	=	1800	S00	=	2700			

### Evolv<sup>™</sup> HC Terminal Accessories



Evolv HC Terminal Brackets			
Part Number	Product Description		
EHC-BKT-Wall	Evolv HC Wall- and Pole-Mount Terminal Bracket, compatible with 8-, 12-, and 16-port terminals (2 rows of ports)		
EHC-BKT-HH	Evolv HC Handhole-Mount Terminal Bracket, compatible with all Evolv terminals (2, 4, 6, 8, 12, and 16 port)		
EHC-BKT-Strand	Evolv HC Strand-Mount Terminal Bracket, compatible with all Evolv terminals (2, 4, 6, 8, 12, and 16 port)		



Evolv HC Terminal Covers	
Part Number	Product Description
EHC-CVR-A4-GRAY	Evolv HC 2- and 4-Port Terminal Cover
EHC-CVR-A8-GRAY	Evolv HC 6- and 8-Port Terminal Cover



# Evolv<sup>™</sup> HC Drops with Pushlok<sup>™</sup> Technology



Pushlok hardened connector technology is the key component enabling smaller terminals and drops for FTTx networks than ever before. Designed for use in nearly every access network environment, the terminal is small enough to be placed in existing handholes or pedestals where space is paramount, on building façades, or in aerial networks (pole- or strand-mount). Improved aesthetics improve end-user adoption for façade applications.

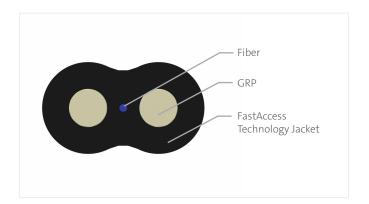
To supplement the new Evolv HC Terminal portfolio, the Evolv HC Drop assemblies will also feature Pushlok technology. The Evolv HC Drop portfolio includes ROC<sup>\*\*</sup> drop cables. SC APC and OptiTap<sup>\*</sup> converters are available.

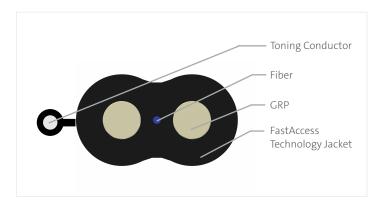
Features	Benefits
Hardened connector technology	Reduced-diameter Pushlok connector.
Flexible connector offerings	Dual-ended or pigtailed versions to accommodate any ONT interface. Hybrid assemblies with hardened connector (terminal) to SC APC (ONT).
Versatile installation environments	Cable variants for aerial (dielectric), direct-buried (toneable), duct, and MDU applications.
Dual-compatibilty	OptiTap and SC APC converters enable users to convert Pushlok connectors into OptiTap and SC APC form factors.



# ROC™ Drop Cable Assembly

Hardened connector, FastAccess® technology, 900 μm





As an industry leader in optical connectivity products, Corning designs and manufactures the ROC<sup>\*\*</sup> drop cable assembly with factory-terminated, environmentally sealed and hardened connectors to reduce the cost and time of drop cable deployment. Corning hardened connectors provide superior durability and reliability in the drop segment of the network. This assembly also offers significant improvements in cable management.

By featuring the ROC drop cable design, issues of slack storage capacity are virtually eliminated. The ROC drop cable minimum bend radius is half the size of legacy drop cable. The outer dimensions of the cable have been reduced by more than 50%. ROC drop cables are more flexible, allowing for easier routing at the ONT. Installers will see a reduction in truck storage space requirements with this new design.

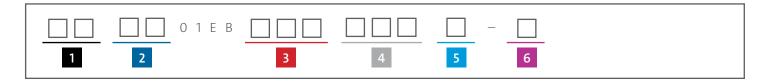
Features	Benefits
Hardened connector technology	OptiTap® connector, industry standard for existing FTTx networks, or reduced-diameter Pushlok™ connector.
Reduced optimized cable cross-section	Smaller profile and bend radius. Flexibility allows for increased slack storage capacity in existing optical network terminals (ONTs), pedestals, and handholes.
Robust design	Designed for rapid connection to external flush-mounted bulkhead adapters on terminals or closures.
Flexible connector offerings	Dual-ended or pigtailed versions to accommodate any ONT interface.  Hybrid assemblies with hardened connector (terminal) to SC APC (ONT) are available with both OptiTap and Pushlok variants.
	Aerial: dielectric, self-supporting at 40 lbs installation tension at 150 ft (NESC Heavy), 255 ft (NESC Medium) or 330 ft (NESC Light).
Versatile installation environments	Direct-buried: toneable for easy locating.
	Duct: integral pulling eye/connector cap designed for 100 lb maximum pulling tension; OptiTap connector is suitable for 1.25-in conduit; Pushlok connector is suitable for 13-mm inner diameter duct.

Standards	
Design and Test Criteria	GR-3120

Pushlok" Connector Specifications	
Insertion Loss, Typical	0.15 dB
Reflectance, Typical	-0.65 dB
Outer Diameter Dimensions	12.0 mm (with dust cap)

Cable Specifications		
Axial Pull, Plug to Adapter Coupling Strength	50.0 lb	
Axial Pull, Plug to Cable, Through the Dust Cap	100.0 lb	
Cold Mate/Demate	-40°C mechanical testing	

#### **Ordering Information**



- Select end one connector.
  - 00 = No Connector
  - D1 = Pushlok Connector
- 2 Select input.
  - D1 = Pushlok Connector
  - 44 = SC APC Connector, simplex
- 3 Select cable type.
  - 49R = ROC\* 900 μm dielectric cable with FastAccess° technology
  - 19R = ROC 900 μm toneable cable with FastAccess technology
  - PFR = ROC dielectric cable, heat-shrink furcation, 2.9 mm leg on simplex connector end with pulling grip
  - PTR = ROC toneable cable, heat-shrink furcation, 2.9 mm leg on simplex connector end with pulling grip
  - 4R3 = ROC dielectric cable, heat-shrink furcation leg on simplex connector end
  - 1R3 = ROC toneable cable, heat-shrink furcation leg on simplex connector end

4 Select cable assembly length (three-digit length) for lengths under 999 ft. See Table A for lengths ≥ 1000 ft.

#### Lengths

Minimum: 2 m/6 ft

#### Meters lengths

2, 3, 5 then 5-m increments up to 600 m

#### Foot lengths

6, 10, then 10- or 25-ft increments up to 2000 ft

Note: Contact customer care for extended length offerings.

5 Select cable assembly unit of length.

F = Feet

M = Meters

6 Defines packaging.\*

\*Orders arrive in bulk packaging unless specified. To order individual packaging, please add '-P' to end of part number.

#### **Bulk packaging**

Multiple units coiled in a box up to 1500 ft/455 m. Greater than 1501 ft/460 m ships on a reel.

#### Individual packaging

Individual units coiled in a box up to 500 ft/150 m. Greater than 500 ft/155 m ships on a reel.

#### Table A: Alpha codes for lengths ≥ 1000 ft

# Evolv<sup>™</sup> HC Drop Accessories



Pushlok™ Drop Cable Assembly Accessory Information		
Evolv™ HC SC Converter with Pushlok™ Technology		
Part Number	KT-PL-SHROUD-SC	
Description	SC APC shroud for converting Pushlok drop connectors to an SC form factor	
Minimum Order Quantity (MOQ)	10	



Pushlok Drop Cable Assembly Accessory Information		
Evolv HC OptiTap* Converter with Pushlok Technology		
Part Number	KT-PL-OPT-CONV	
Description	OptiTap housing for converting Pushlok drop connectors to an OptiTap form factor	
Minimum Order Quantity (MOQ)	10	

#### Notes

