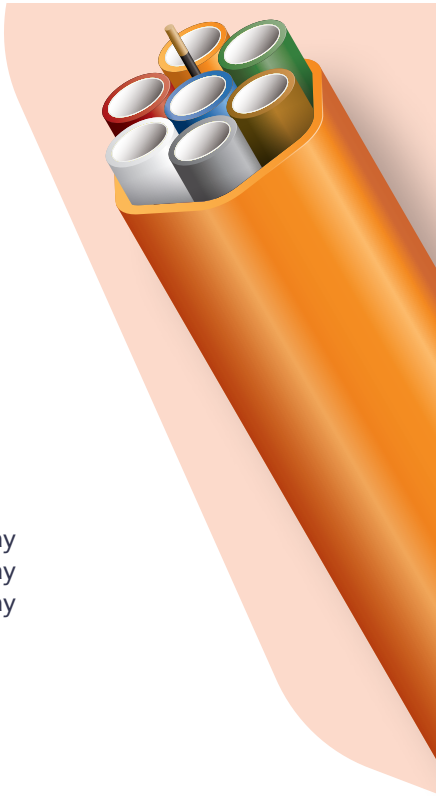
MICROTECHNOLOGY

FUTUREPATH



- MicroDucts factory bundled with a polyethylene oversheath
- Multiple pathways for one installation cost, allows flexibility and future growth
- No special tools or equipment needed; installation uses the same as traditional conduit or innerduct
- Multiple configurations available

INSTALLATION TYPES

Subdivided Conduit
Directional Bore
Overrides
MicroTrench
Plow
Tray
Trench

CONFIGURATIONS

2-way
3-way
4-way
7-way
8-way
10-way
12-way
19-way
24-way

OVERSHEATH & MICRODUCT COLORS

or custom colors with optional stripes

FEATURES

STANDARD

SPECIFICATIONS/DETAILS FuturePath is a unit of bundled MicroDucts. Manufactured from flexible HDPE (High Density Polyethylene)

FILL RATIO Choose the correct MicroDuct size based on the Outer Diameter (OD) of desired MicroCable. Dura-Line recommends a fill ratio of 50% to 75% for optimal cable placement performance. Several factors impact jetting distance including the condition of route, bends, and equipment.

CONDUIT MARKINGS Permanent marking along FuturePath includes: material, relevant standards, production info, and sequential feet or meter markings. Custom options available.

CO-EXTRUDED LINING SILICORE® ULF (Ultra-Low Friction) is co-extruded inside the HDPE wall creating a slick, permanent, interior lining. With a coefficient of friction 60% lower than standard HDPE conduit without the aid of wet lubricants, SILICORE® ULF exhibits no loss in performance over time or in extreme temperature conditions.

INTERNAL RIBS Standard (except 3.5mm ID MicroDucts which are designed with a standard smooth interior)

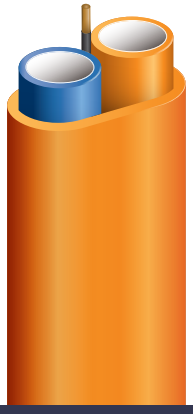
LOCATE WIRE Includes a 20 AWG insulated copper wire

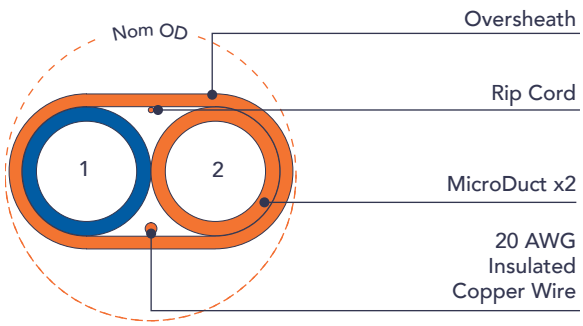
RIP CORDS For easy opening of the oversheath

OPTIONS

THICKER OVERSHEATH Available in most configurations to meet your needs for more rugged projects

FUTUREPATH 2-WAY TECHNICAL SPECIFICATIONS

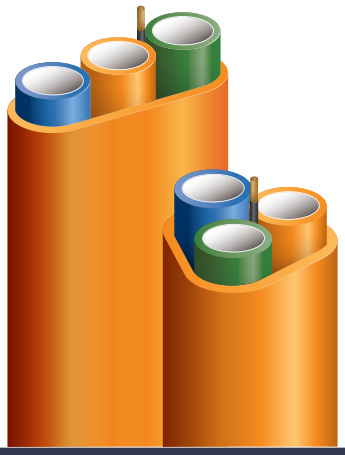


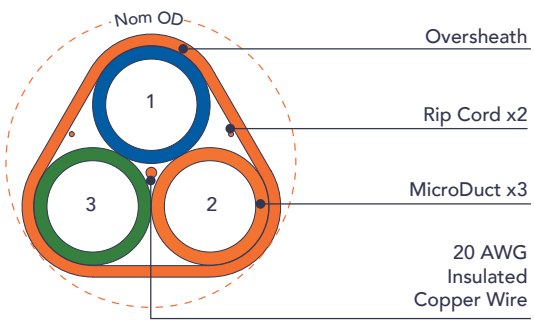


MICRODUCT OD/ID (MM)	NOM OD (IN)	MICRODUCT MIN ID (MM)	MICRODUCT MIN ID (IN)	OVERSHEATH (IN)	WEIGHT (LB/FT)	BEND RADIUS SUP* (IN)	BEND RADIUS UNSUP* (IN)	SWPS† (LBS)
5/3.5	0.45	3.4	0.13	0.030	0.025	7	11	133
7/4	0.65	3.7	0.15	0.050	0.067	6	10	363
8.5/6	0.77	5.9	0.23	0.050	0.075	12	19	404
10/8	0.87	8.1	0.32	0.040	0.070	9	17	373
12.7/10	1.10	9.8	0.39	0.050	0.119	11	22	635
14/10	1.19	9.8	0.39	0.040	0.149	12	24	795
16/12	1.35	11.6	0.46	0.050	0.183	14	27	976
16/13	1.35	12.8	0.50	0.050	0.153	14	27	824
18/14	1.56	13.6	0.54	0.070	0.244	16	31	1,316
22/16	1.82	15.4	0.61	0.070	0.333	18	36	1,788
27/20	2.27	20.7	0.81	0.050	0.374	33	55	2,042

† Safe working pull strength is calculated at 80% of tensile or breaking strength
* Unsupported Bend Radius guidelines should be followed during the installation process. The Supported Bend Radius are post-installation measurements.

FUTUREPATH 3-WAY TECHNICAL SPECIFICATIONS





MICRODUCT OD/ID (MM)	NOM OD (IN)	MICRODUCT MIN ID (MM)	MICRODUCT MIN ID (IN)	OVERSHEATH (IN)	WEIGHT (LB/FT)	BEND RADIUS SUP* (IN)	BEND RADIUS UNSUP* (IN)	SWPS† (LBS)
5/3.5	0.51	3.4	0.13	0.040	0.040	7	11	220
7/4	0.66	3.7	0.15	0.030	0.073	10	17	395
8.5/6	0.85	5.9	0.23	0.060	0.110	11	19	593
10/8	0.99	8.1	0.32	0.070	0.128	9	18	684
10/8 (Flat)	1.29	8.1	0.32	0.050	0.116	19	32	619
12.7/10	1.14	9.8	0.39	0.070	0.191	12	24	1,021
14/10	1.25	9.8	0.39	0.030	0.193	19	31	1,026
16/12	1.49	11.6	0.46	0.070	0.292	15	30	1,559
16/12 (Flat)	1.98	11.6	0.46	0.050	0.265	20	40	1,412
16/13	1.49	12.8	0.50	0.070	0.247	20	33	1,331
16/13 (Flat)	1.98	12.8	0.50	0.050	0.220	20	40	1,184
18/14	1.67	13.6	0.54	0.070	0.330	22	37	1,776
18/14 (Flat)	2.23	13.6	0.54	0.050	0.306	22	45	1,645
22/16	1.79	15.4	0.61	0.050	0.413	18	36	2,111
22/18	2.01	18.0	0.71	0.070	0.409	26	44	2,235
27/20	2.37	20.7	0.81	0.050	0.532	31	52	2,847

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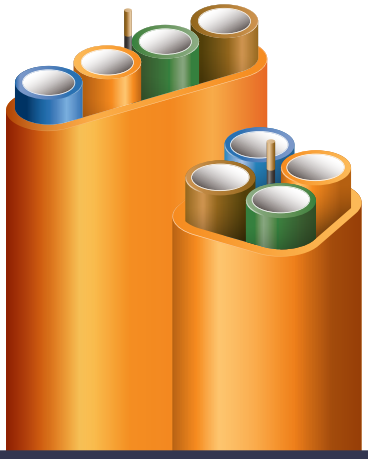
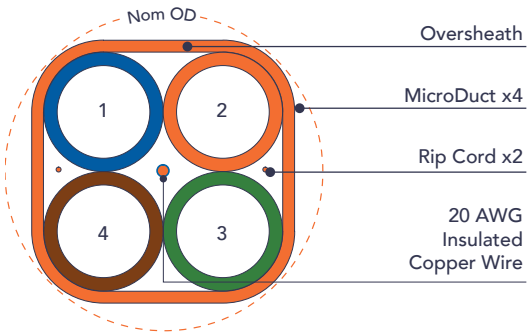
† Safe working pull strength is calculated at 80% of tensile or breaking strength

FUTUREPATH 4-WAY TECHNICAL SPECIFICATIONS





MICRODUCT OD/ID (MM)	NOM OD (IN)	MICRODUCT MIN ID (MM)	MICRODUCT MIN ID (IN)	OVERSHEATH (IN)	WEIGHT (LB/FT)	BEND RADIUS SUP* (IN)	BEND RADIUS UNSUP* (IN)	SWPS† (LBS)
5/3.5	0.56	3.4	0.13	0.040	0.050	7	12	276
7/4	0.73	3.7	0.15	0.030	0.094	11	18	508
8.5/6	0.93	5.9	0.23	0.060	0.136	12	20	733
10/8	1.04	8.1	0.32	0.040	0.120	9	17	635
12.7/10	1.34	9.8	0.39	0.070	0.236	13	27	1,260
12.7/10 (Flat)	2.14	9.8	0.39	0.050	0.223	21	42	1,189
14/10	1.47	9.8	0.39	0.070	0.320	13	25	1,709
16/12	1.66	11.6	0.46	0.070	0.368	17	33	1,963
16/13	1.65	12.8	0.50	0.070	0.308	25	41	1,658
16/13 (Flat)	2.67	12.8	0.50	0.050	0.290	39	66	1,516
18/14	1.86	13.6	0.54	0.070	0.417	19	37	2,243
22/16	2.23	15.4	0.61	0.070	0.613	28	47	2,840
22/18	2.17	18.0	0.71	0.040	0.436	33	54	2,326
27/20	2.68	20.7	0.81	0.070	0.751	40	67	4,024

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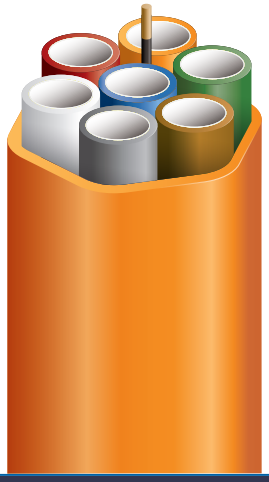
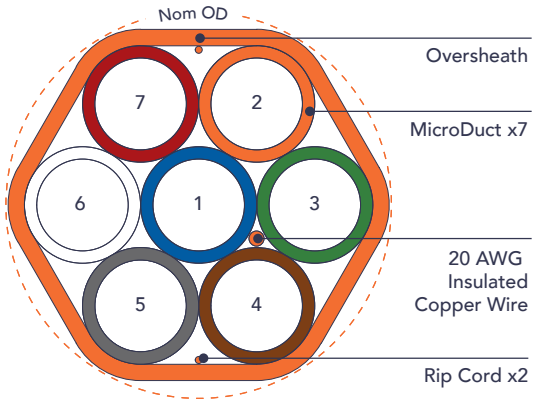
FUTUREPATH 7-WAY TECHNICAL SPECIFICATIONS





MICRODUCT OD/ID (MM)	NOM OD (IN)	MICRODUCT MIN ID (MM)	MICRODUCT MIN ID (IN)	OVERSHEATH (IN)	WEIGHT (LB/FT)	BEND RADIUS SUP* (IN)	BEND RADIUS UNSUP* (IN)	SWPS† (LBS)
5/3.5	0.67	3.4	0.13	0.040	0.075	7	13	409
7/4	0.93	3.7	0.15	0.050	0.174	14	23	941
7/5.5	0.93	5.6	0.22	0.050	0.116	9	19	633
8.5/6	1.13	5.9	0.23	0.060	0.207	16	26	1,112
10/8	1.29	8.1	0.32	0.050	0.204	13	26	1,080
12.7/10	1.64	9.8	0.39	0.070	0.360	16	33	1,926
14/10	1.77	9.8	0.39	0.050	0.465	18	35	2,474
16/12	2.03	11.6	0.46	0.070	0.579	20	40	3,079
16/13	2.03	12.8	0.50	0.070	0.471	20	41	2,530
18/14	2.27	13.6	0.54	0.070	0.656	31	52	3,522
22/16	2.74	15.4	0.61	0.070	1.047	38	63	5,588
22/18	2.74	18.0	0.71	0.070	0.816	38	63	4,259
27/20	2.97	20.7	0.81	0.050	1.126	49	81	6,013

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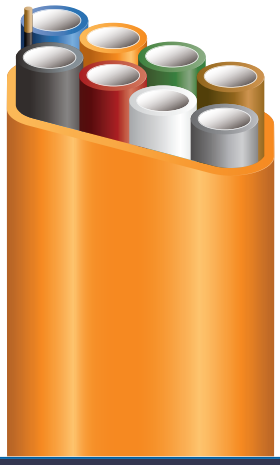
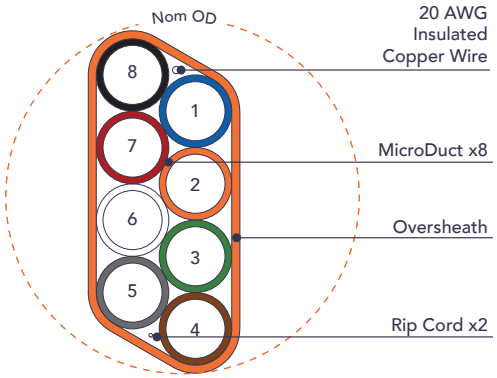
FUTUREPATH 8-WAY TECHNICAL SPECIFICATIONS





MICRODUCT OD/ID (MM)	NOM OD (IN)	MICRODUCT MIN ID (MM)	MICRODUCT MIN ID (IN)	OVERSHEATH (IN)	WEIGHT (LB/FT)	BEND RADIUS SUP* (IN)	BEND RADIUS UNSUP* (IN)	SWPS† (LBS)
7/4	1.38	3.7	0.15	0.050	0.203	9	16	1,099
16/12	2.98	11.6	0.46	0.070	0.673	45	76	3,580

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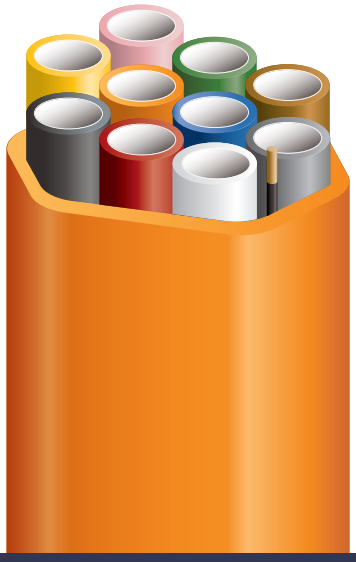
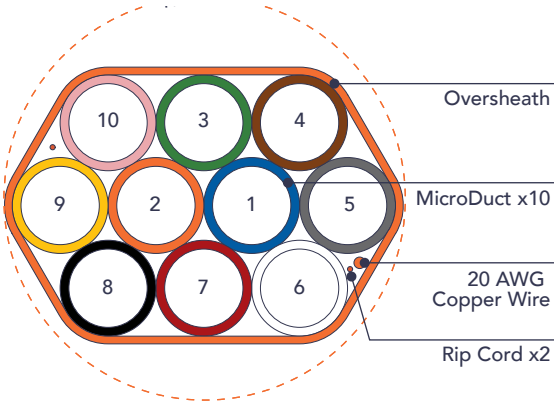
FUTUREPATH 10-WAY TECHNICAL SPECIFICATIONS





MICRODUCT OD/ID (MM)	NOM OD (IN)	MICRODUCT MIN ID (MM)	MICRODUCT MIN ID (IN)	OVERSHEATH (IN)	WEIGHT (LB/FT)	BEND RADIUS SUP* (IN)	BEND RADIUS UNSUP* (IN)	SWPS† (LBS)
18/14	2.98	13.6	0.54	0.070	0.895	31	52	4,801
22/18	3.60	18.0	0.71	0.070	1.114	54	90	5,946

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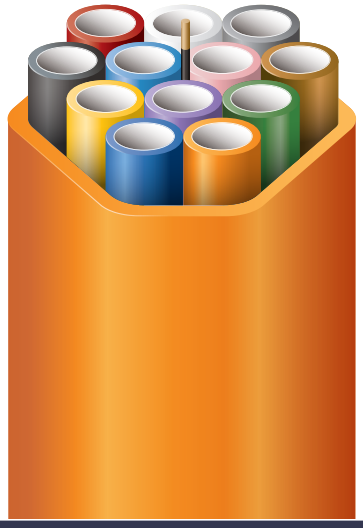
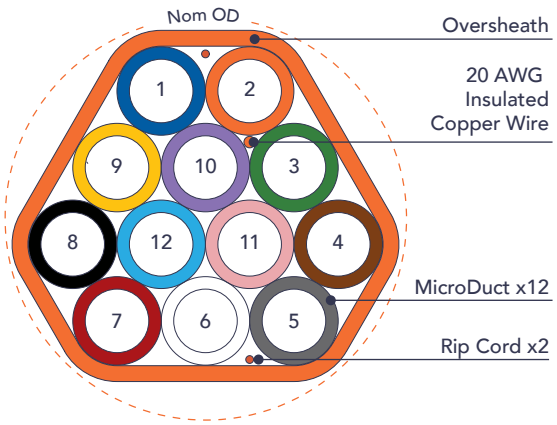
FUTUREPATH 12-WAY TECHNICAL SPECIFICATIONS





MICRODUCT OD/ID (MM)	NOM OD (IN)	MICRODUCT MIN ID (MM)	MICRODUCT MIN ID (IN)	OVERSHEATH (IN)	WEIGHT (LB/FT)	BEND RADIUS SUP* (IN)	BEND RADIUS UNSUP* (IN)	SWPS† (LBS)
5/3.5	0.89	3.4	0.13	0.050	0.123	9	18	674
7/4	1.24	3.7	0.15	0.050	0.277	17	28	1,498
8.5/6	1.48	5.9	0.23	0.060	0.322	20	33	1,727
10/8	1.70	8.1	0.32	0.050	0.314	17	34	1,655
12.7/10	2.14	9.8	0.39	0.070	0.566	20	39	3,004
14/10	2.38	9.8	0.39	0.070	0.800	32	53	4,255

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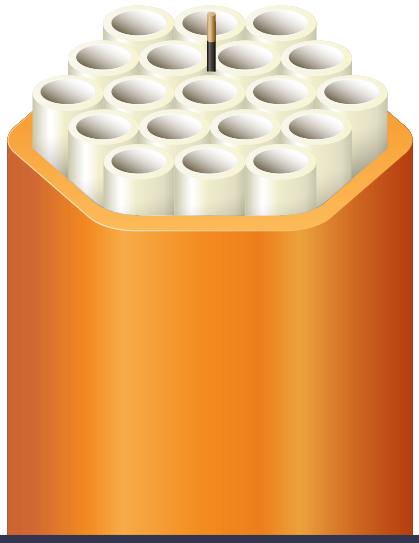
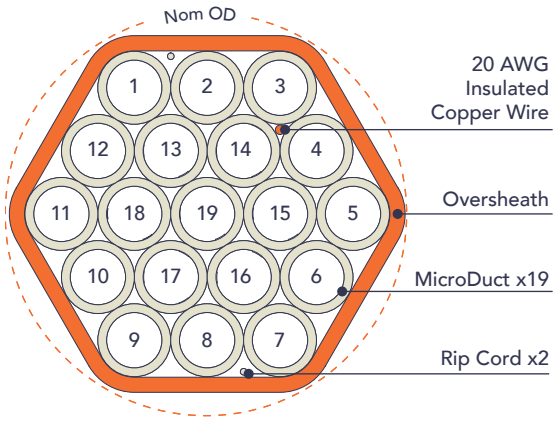
FUTUREPATH 19-WAY TECHNICAL SPECIFICATIONS





MICRODUCT OD/ID (MM)	NOM OD (IN)	MICRODUCT MIN ID (MM)	MICRODUCT MIN ID (IN)	OVERSHEATH (IN)	WEIGHT (LB/FT)	BEND RADIUS SUP* (IN)	BEND RADIUS UNSUP* (IN)	SWPS† (LBS)
5/3.5	1.07	3.4	0.13	0.040	0.168	16	27	920
7/4	1.48	3.7	0.15	0.050	0.412	22	37	2,227
8.5/6	1.80	5.9	0.23	0.060	0.472	24	41	2,528
10/8	2.09	8.1	0.32	0.060	0.489	21	42	2,577
12.7/10	2.64	9.8	0.39	0.070	0.826	24	47	4,373

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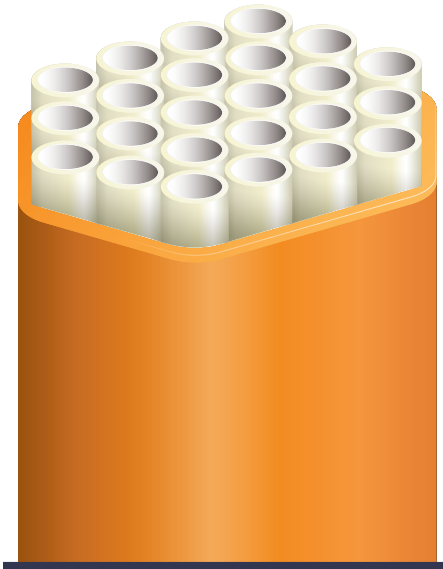
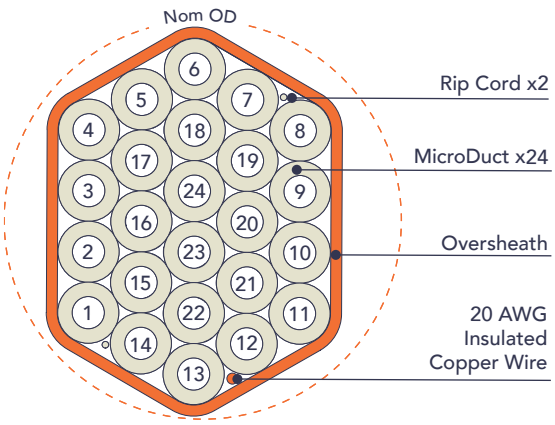
FUTUREPATH 24-WAY TECHNICAL SPECIFICATIONS





MICRODUCT OD/ID (MM)	NOM OD (IN)	MICRODUCT MIN ID (MM)	MICRODUCT MIN ID (IN)	OVERSHEATH (IN)	WEIGHT (LB/FT)	BEND RADIUS SUP* (IN)	BEND RADIUS UNSUP* (IN)	SWPS† (LBS)
5/3.5	1.27	3.4	0.13	0.040	0.202	14	24	1,120
7/3.5	1.76	3.7	0.15	0.050	0.527	26	44	2,879
7/4	1.76	3.7	0.15	0.050	0.509	20	33	2,751
8.5/6	2.13	5.9	0.23	0.060	0.579	24	41	3,099

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† Safe working pull strength is calculated at 80% of tensile or breaking strength