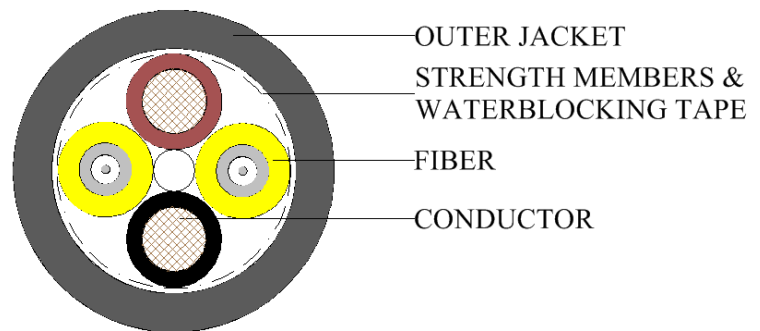**BELDEN**
SENDING ALL THE RIGHT SIGNALS

FiberExpress (FX) Hybrid Copper-Fiber Cables allow end-users to take advantage of DC power and fiber in one cable to safely deliver low-voltage power and data over long distances to remote locations where standard power is unavailable or too costly to install. Hybrid cable technology offers installation and labor savings by requiring just a single cable pull. Various cable constructions offer unlimited application flexibility.

Standards:

- ICEA S-120-742
- RoHS
- ANSI/TIA-568-C.3

Temperature Range		
	Riser	**Plenum**
Operating	-40^{0}C to +70^{0}C -40^{0}F to +158^{0}F	-40^{0}C to +70^{0}C -40^{0}F to +158^{0}F
Storage	-40^{0}C to +70^{0}C -40^{0}F to +158^{0}F	-40^{0}C to +70^{0}C -40^{0}F to +158^{0}F
Installation	-10^{0}C to +60^{0}C 14^{0}F to +140^{0}F	0^{0}C to +60^{0}C 32^{0}F to +140^{0}F

OUTER JACKET
STRENGTH MEMBERS & WATERBLOCKING TAPE
FIBER
CONDUCTOR

Glass Type	Fiber Grade Code (x)	Subunit Color	Operating Wavelength (nm)	Max Attenuation (dB/km)	Min. OFL Bandwidth (MHz-km)	Min. Laser Bandwidth (MHz-km)	1 Gigabit Ethernet Min. Link Length (meters)	10 Gigabit Ethernet Min. Link Length (meters)
OM3 - 50/125mm Multi-Mode	3	Aqua	850/1300	3.0/1.0	1500/500	2000/-	1000/550	300/-
OM4 - 50/125mm Multi-Mode	4	Erika Violet	850/1300	3.0/1.0	3500/500	4700/-	1100/550	400/-
OS2 - Single Mode	S	Yellow	1310/1550	0.5/0.5	-	-	5000/-	10,000/40,000
OM2 Fiber available upon Request								

Riser - UL Type CL3R-OF – 3mm Sub Units

AWG Size	Fiber Count	Part Number[1]	Jacket Color	Nom. Jacket Dia. in (mm)	Weight lbs/1000ft (kg/km)	Max. Install Load lbs (N)	Max. Long Term Load lbs (N)
12	2	HDxB0020212RC	Black	0.351 (8.9)	84 (125)	300 (1330)	90 (400)
14	2	HDxB0020214RC	Black	0.351 (8.9)	59 (88)	300 (1330)	90 (400)

1 Substitute (x) with Fiber Grade Code

Riser - UL Type CMR-OF – 3mm Sub Units

AWG Size	Fiber Count	Part Number[1]	Jacket Color	Nom. Jacket Dia. in (mm)	Weight lbs/1000ft (kg/km)	Max. Install Load lbs (N)	Max. Long Term Load lbs (N)
16	2	HDxB0020216RC	Black	0.324 (8.2)	51 (76)	300 (1330)	90 (400)
18	2	HDxB0020218RC	Black	0.324 (8.2)	46 (68)	300 (1330)	90 (400)
20	2	HDxB0020220RC	Black	0.342 (8.7)	41 (61)	300 (1330)	90 (400)

1 Substitute (x) with Fiber Grade Code

Riser - UL Type CL3R-OF – 3mm Sub Units - Aluminum Interlocked Armor

AWG Size	Fiber Count	Part Number[1]	Jacket Color	Nom. Jacket Dia. in (mm)	Weight lbs/1000ft (kg/km)	Max. Install Load lbs (N)	Max. Long Term Load lbs (N)
12	2	HDxB0020212FC	Black	0.604 (15.3)	180 (268)	300 (1330)	90 (400)
14	2	HDxB0020214FC	Black	0.604 (15.3)	155 (231)	300 (1330)	90 (400)

1 Substitute (x) with Fiber Grade Code

Riser - UL Type CMR-OF – 3mm Sub Units - Aluminum Interlocked Armor

AWG Size	Fiber Count	Part Number[1]	Jacket Color	Nom. Jacket Dia. in (mm)	Weight lbs/1000ft (kg/km)	Max. Install Load lbs (N)	Max. Long Term Load lbs (N)
16	2	HDxB0020216FC	Black	0.574 (14.6)	141 (210)	300 (1330)	90 (400)
18	2	HDxB0020218FC	Black	0.574 (14.6)	136 (202)	300 (1330)	90 (400)
20	2	HDxB0020220FC	Black	0.594 (15.1)	135 (201)	300 (1330)	90 (400)

1 Substitute (x) with Fiber Grade Code

Riser - UL Type CL3R-OF – 2mm Sub Units

AWG Size	Fiber Count	Part Number[1]	Jacket Color	Nom. Jacket Dia. in (mm)	Weight lbs/1000ft (kg/km)	Max. Install Load lbs (N)	Max. Long Term Load lbs (N)
12	2	HDxB0020212RB	Black	0.328 (8.3)	72 (107)	300 (1330)	90 (400)
14	2	HDxB0020214RB	Black	0.282 (7.2)	50 (74)	300 (1330)	90 (400)

1 Substitute (x) with Fiber Grade Code

Riser - UL Type CMR-OF – 2mm Sub Units

AWG Size	Fiber Count	Part Number[1]	Jacket Color	Nom. Jacket Dia. in (mm)	Weight lbs/1000ft (kg/km)	Max. Install Load lbs (N)	Max. Long Term Load lbs (N)
16	2	HDxB0020216RB	Black	0.276 (7)	42 (63)	300 (1330)	90 (400)
18	2	HDxB0020218RB	Black	0.261 (6.6)	34 (51)	300 (1330)	90 (400)
20	2	HDxB0020220RB	Black	0.244 (6.2)	29 (43)	300 (1330)	90 (400)

1 Substitute (x) with Fiber Grade Code

Riser - UL Type CL3R-OF – 2mm Sub Units - Aluminum Interlocked Armor

AWG Size	Fiber Count	Part Number[1]	Jacket Color	Nom. Jacket Dia. in (mm)	Weight lbs/1000ft (kg/km)	Max. Install Load lbs (N)	Max. Long Term Load lbs (N)
12	2	HDxB0020212FB	Black	0.584 (14.8)	164 (244)	300 (1330)	90 (400)
14	2	HDxB0020214FB	Black	0.534 (13.6)	133 (198)	300 (1330)	90 (400)

1 Substitute (x) with Fiber Grade Code

Riser - UL Type CMR-OF – 2mm Sub Units - Aluminum Interlocked Armor

AWG Size	Fiber Count	Part Number[1]	Jacket Color	Nom. Jacket Dia. in (mm)	Weight lbs/1000ft (kg/km)	Max. Install Load lbs (N)	Max. Long Term Load lbs (N)
16	2	HDxB0020216FB	Black	0.534 (13.6)	125 (186)	300 (1330)	90 (400)
18	2	HDxB0020218FB	Black	0.514 (13.1)	113 (168)	300 (1330)	90 (400)
20	2	HDxB0020220FB	Black	0.494 (12.5)	105 (156)	300 (1330)	90 (400)

1 Substitute (x) with Fiber Grade Code

Plenum - UL Type CL3P-OF – 3mm Sub Units

AWG Size	Fiber Count	Part Number[1]	Jacket Color	Nom. Jacket Dia. in (mm)	Weight lbs/1000ft (kg/km)	Max. Install Load lbs (N)	Max. Long Term Load lbs (N)
12	2	HDxB0020212PC	Black	0.351 (8.9)	87 (129)	300 (1330)	90 (400)
14	2	HDxB0020214PC	Black	0.351 (8.9)	67 (100)	300 (1330)	90 (400)

1 Substitute (x) with Fiber Grade Code

Plenum - UL Type CMP-OF – 3mm Sub Units

AWG Size	Fiber Count	Part Number[1]	Jacket Color	Nom. Jacket Dia. in (mm)	Weight lbs/1000ft (kg/km)	Max. Install Load lbs (N)	Max. Long Term Load lbs (N)
16	2	HDxB0020216PC	Black	0.273 (6.9)	44 (65)	300 (1330)	90 (400)
18	2	HDxB0020218PC	Black	0.273 (6.9)	39 (58)	300 (1330)	90 (400)
20	2	HDxB0020220PC	Black	0.291 (7.4)	34 (51)	300 (1330)	90 (400)

1 Substitute (x) with Fiber Grade Code

Plenum - UL Type CL3P-OF – 2mm Sub Units

AWG Size	Fiber Count	Part Number[1]	Jacket Color	Nom. Jacket Dia. in (mm)	Weight lbs/1000ft (kg/km)	Max. Install Load lbs (N)	Max. Long Term Load lbs (N)
12	2	HDxB0020212PB	Black	0.277 (7.0)	63 (94)	300 (1330)	90 (400)
14	2	HDxB0020214PB	Black	0.231 (5.9)	44 (65)	300 (1330)	90 (400)

1 Substitute (x) with Fiber Grade Code

Plenum - UL Type CMP-OF – 2mm Sub Units

AWG Size	Fiber Count	Part Number[1]	Jacket Color	Nom. Jacket Dia. in (mm)	Weight lbs/1000ft (kg/km)	Max. Install Load lbs (N)	Max. Long Term Load lbs (N)
16	2	HDxB0020216PB	Black	0.225 (5.7)	34 (51)	300 (1330)	90 (400)
18	2	HDxB0020218PB	Black	0.210 (5.3)	28 (42)	300 (1330)	90 (400)
20	2	HDxB0020220PB	Black	0.193 (4.9)	21 (31)	300 (1330)	90 (400)

1 Substitute (x) with Fiber Grade Code

Plenum - UL Type CL3P-OF – 3mm Sub Units - Aluminum Interlocked Armor

AWG Size	Fiber Count	Part Number[1]	Jacket Color	Nom. Jacket Dia. in (mm)	Weight lbs/1000ft (kg/km)	Max. Install Load lbs (N)	Max. Long Term Load lbs (N)
12	2	HDxB0020212AC	Black	0.604 (15.3)	190 (283)	300 (1330)	90 (400)
14	2	HDxB0020214AC	Black	0.604 (15.3)	170 (253)	300 (1330)	90 (400)

1 Substitute (x) with Fiber Grade Code

Plenum - UL Type CMP-OF – 3mm Sub Units - Aluminum Interlocked Armor

AWG Size	Fiber Count	Part Number[1]	Jacket Color	Nom. Jacket Dia. in (mm)	Weight lbs/1000ft (kg/km)	Max. Install Load lbs (N)	Max. Long Term Load lbs (N)
16	2	HDxB0020216AC	Black	0.524 (13.3)	131 (195)	300 (1330)	90 (400)
18	2	HDxB0020218AC	Black	0.524 (13.3)	126 (188)	300 (1330)	90 (400)
20	2	HDxB0020220AC	Black	0.544 (13.8)	125 (186)	300 (1330)	90 (400)

1 Substitute (x) with Fiber Grade Code

Plenum - UL Type CL3P-OF – 2mm Sub Units - Aluminum Interlocked Armor

AWG Size	Fiber Count	Part Number[1]	Jacket Color	Nom. Jacket Dia. in (mm)	Weight lbs/1000ft (kg/km)	Max. Install Load lbs (N)	Max. Long Term Load lbs (N)
12	2	HDxB0020212AB	Black	0.534 (13.6)	152 (226)	300 (1330)	90 (400)
14	2	HDxB0020214AB	Black	0.484 (12.3)	123 (183)	300 (1330)	90 (400)

1 Substitute (x) with Fiber Grade Code

Plenum - UL Type CMP-OF – 2mm Sub Units - Aluminum Interlocked Armor

AWG Size	Fiber Count	Part Number[1]	Jacket Color	Nom. Jacket Dia. in (mm)	Weight lbs/1000ft (kg/km)	Max. Install Load lbs (N)	Max. Long Term Load lbs (N)
16	2	HDxB0020216AB	Black	0.484 (12.3)	113 (168)	300 (1330)	90 (400)
18	2	HDxB0020218AB	Black	0.464 (11.8)	103 (153)	300 (1330)	90 (400)
20	2	HDxB0020220AB	Black	0.444 (11.3)	92 (137)	300 (1330)	90 (400)

1 Substitute (x) with Fiber Grade Code

STANDARD													
FX Fiber Cable		**Fiber Type**		**Family**		**Fiber Count**		**Conductor Count**		**Copper Type**		**Flammability**		**Subunit Type / Configuration**
HD		**3**		**B**		**002**		**02**		**12**		**R**		**B**
HD	Indoor/Outdoor Hybrid Cable	3	OM3	B	Breakout	001	1 Fiber	01	1 Conductor	12	12 AWG	P	Plenum	B	COPPER: Stranded or Category Cable FIBER: 2.0mm Sub, 1 x 900um Fiber / Sub
		4	OM4			002	2 Fibers	02	2 Conductors	14	14 AWG	R	Riser	C	COPPER: Stranded or Category Cable FIBER: 3.0mm Sub, 1 x 900um Fiber / Sub
		S	OS2 (G.657.A1)							16	16 AWG	F	Riser Interlocked Aluminum Armor		
										18	18 AWG	A	Plenum Interlocked Aluminum Armor		
										20	20 AWG				