



Revision Number: 5 Revision Date: 1.14.21

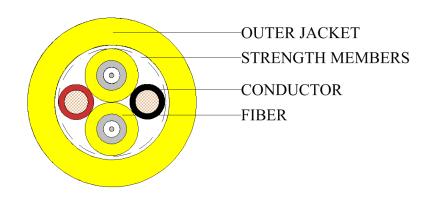


Fiber Express (FX) Hybrid Copper-Fiber Cables allow endusers to take advantage of DC power and fiber in one cable to safely deliver low-voltage power and data over long distances to remote locations where standard power is unavailable or too costly to install. Hybrid cable technology offers installation 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 Rang | ge |
|--------------|---|---|
| | Riser | Plenum |
| Operating | -20° C to $+70^{\circ}$ C -4° F to $+158^{\circ}$ F | 0^{0} C to $+70^{0}$ C 32^{0} F to $+158^{0}$ F |
| Storage | -40° C to $+70^{\circ}$ C -40° F to $+158^{\circ}$ 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 |



| Glass Type | Fiber Grade Code (x) | Subunit and Jacket 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 ava | ilable upon Requ | iest | | | | | | |





| | 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 | HIxB0020212RC | See Table | 0.327 (8.3) | 76 (113) | 300 (1330) | 90 (400) | | | | |
| 14 | 2 | HIxB0020214RC | See Table | 0.327 (8.3) | 76 (113) | 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 | HIxB0020216RC | See Table | 0.300 (7.6) | 48 (71) | 300 (1330) | 90 (400) | | | |
| 18 | 2 | HIxB0020218RC | See Table | 0.300 (7.6) | 43 (64) | 300 (1330) | 90 (400) | | | |
| 20 | 2 | HIxB0020220RC | See Table | 0.318 (8.1) | 38 (57) | 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 | HIxB0020212FC | See Table | 0.584 (14.8) | 168 (250) | 300 (1330) | 90 (400) | | | | |
| 14 | 2 | HIxB0020214FC | See Table | 0.584 (14.8) | 168 (250) | 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 | HIxB0020216FC | See Table | 0.554 (14.1) | 135 (201) | 300 (1330) | 90 (400) | | | | |
| 18 | 2 | HIxB0020218FC | See Table | 0.554 (14.1) | 130 (193) | 300 (1330) | 90 (400) | | | | |
| 20 | 2 | HIxB0020220FC | See Table | 0.574 (14.6) | 128 (190) | 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 | HIxB0020212RB | See Table | 0.304 (7.7) | 70 (104) | 300 (1330) | 90 (400) | | | | |
| 14 | 2 | HIxB0020214RB | See Table | 0.267 (6.8) | 49 (73) | 300 (1330) | 90 (400) | | | | |
| 1 Substitute (x) with | 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 | HIxB0020216RB | See Table | 0.252 (6.4) | 38 (57) | 300 (1330) | 90 (400) | | | |
| 18 | 2 | HIxB0020218RB | See Table | 0.246 (6.2) | 32 (48) | 300 (1330) | 90 (400) | | | |
| 20 | 2 | HIxB0020220RB | See Table | 0.219 (5.6) | 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 | HIxB0020212FB | See Table | 0.554 (14.1) | 157 (234) | 300 (1330) | 90 (400) | | | |
| 14 | 2 | HIxB0020214FB | See Table | 0.524 (13.3) | 130 (193) | 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 | HIxB0020216FB | See Table | 0.504 (12.8) | 115 (171) | 300 (1330) | 90 (400) | | | | |
| 18 | 2 | HIxB0020218FB | See Table | 0.504 (12.8) | 109 (162) | 300 (1330) | 90 (400) | | | | |
| 20 | 2 | HIxB0020220FB | See Table | 0.474 (12.0) | 101 (150) | 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 | HIxB0020212PC | See Table | 0.327 (8.3) | 83 (124) | 300 (1330) | 90 (400) | | | | |
| 14 | 2 | HIxB0020214PC | See Table | 0.327 (8.3) | 63 (94) | 300 (1330) | 90 (400) | | | | |
| 1 Substitute (x) with | 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 | HIxB0020216PC | See Table | 0.300 (7.6) | 52 (77) | 300 (1330) | 90 (400) | | | |
| 18 | 2 | HIxB0020218PC | See Table | 0.300 (7.6) | 47 (70) | 300 (1330) | 90 (400) | | | |
| 20 | 2 | HIxB0020220PC | See Table | 0.318 (8.1) | 42 (63) | 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 | HIxB0020212PB | See Table | 0.304 (7.7) | 74 (110) | 300 (1330) | 90 (400) | | | | |
| 14 | 2 | HIxB0020214PB | See Table | 0.267 (6.8) | 53 (79) | 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 | HIxB0020216PB | See Table | 0.252 (6.4) | 43 (64) | 300 (1330) | 90 (400) | | | | | |
| 18 | 2 | HIxB0020218PB | See Table | 0.246 (6.2) | 37 (55) | 300 (1330) | 90 (400) | | | | | |
| 20 | 2 | HIxB0020220PB | See Table | 0.220 (5.6) | 29 (43) | 300 (1330) | 90 (400) | | | | | |
| 1 Substitute (x) with | 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 | HIxB0020212AB | See Table | 0.584 (14.8) | 182 (271) | 300 (1330) | 90 (400) | | | | | |
| 14 | 2 | HIxB0020214AB | See Table | 0.584 (14.8) | 162 (241) | 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 | Max. Install Load lbs (N) | Max. Long Term Load lbs (N) | | | | | | | | | |
| 16 | 2 | HIxB0020216AC | See Table | 0.554 (14.1) | 145 (216) | 300 (1330) | 90 (400) | | | | | |
| 18 | 2 | HIxB0020218AC | See Table | 0.554 (14.1) | 140 (208) | 300 (1330) | 90 (400) | | | | | |
| 20 | 2 | HIxB0020220AC | See Table | 0.574 (14.6) | 139 (207) | 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 | HIxB0020212AC | See Table | 0.554 (14.1) | 167 (249) | 300 (1330) | 90 (400) | | | | |
| 14 | 2 | HIxB0020214AC | See Table | 0.524 (13.3) | 140 (208) | 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 | HIxB0020216AB | See Table | 0.504 (12.8) | 126 (188) | 300 (1330) | 90 (400) | | | | | |
| 18 | 2 | HIxB0020218AB | See Table | 0.504 (12.8) | 120 (179) | 300 (1330) | 90 (400) | | | | | |
| 20 | 2 | HIxB0020220AB | See Table | 0.474 (12.0) | 106 (158) | 300 (1330) | 90 (400) | | | | | |
| 1 Substitute (x) with Fiber Grade Code | | | | | | | | | | | | |





| | STANDARD | | | | | | | | | | | | | | |
|------|---------------------------|---|----------------|--------|----------|-------------|----------|-----------------|--------------|-------------|--------|--------------|---|------------------------------|---|
| F | FX Fiber Cable Fiber Type | | Fiber Type | Family | | Fiber Count | | Conductor Count | | Copper Type | | Flammability | | Subunit Type / Configuration | |
| HD 3 | | 3 | | В | 0 | 02 | | 02 | | 12 | | R | | В | |
| НІ | IndoorHybrid Cable | 3 | ОМЗ | В | Breakout | 001 | 1 Fiber | 01 | 1 Conductor | 12 | 12 AWG | Р | Plenum | В | 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 | С | 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 | Α | Plenum Interlocked Aluminum Armor | | |
| | | | | | | | | | | 20 | 20 AWG | | | | |