

## Interconnect Cables

### Indoor

De- scription	Part No.	No. of Fibers	Standard Lengths		Standard Unit Weight		Fiber Size μm	Nom. Buffer/ Tube OD		Strength Members	Nominal OD		Central Element mm	Pulling Tension N	Crush Re- sistance kN/m	Energy kJ/m	Bending radii cable (mm)	
			ft.	m	lbs.	kg		inch	mm		inch	mm					static	dyna- mic

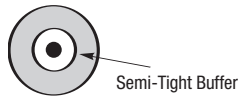
**GIOK • Pigtails • Semi-Tight Buffer • Excellent Strippability • I-K**

**Dry Construction • Halogen-Free Jacket** (Blue, Green, Green with Black Rings or Yellow)

-30/70°C	IEC 60332-2	6888	2100	3.1	1.4	Ø 245 ± 10				-			no	3	4	19		
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GIOK101	1	62.5/125 OM1 in Blue										0.04	0.9	25	35
GIOK201	1	50/125 OM2 in Green										0.04	0.9	25	35
GIOK301	1	50/125 OM3 in Green with Black rings										0.04	0.9	25	35
GIOK401	1	50/125 OM2e in Green										0.04	0.9	25	35
GIOK901	1	9/125 OS1 in Yellow										0.04	0.9	25	35



Strippability secondary coating = 100 cm

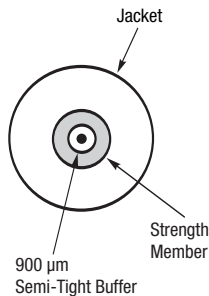
**GIPS • Simplex • Semi-Tight Buffer • Excellent Strippability • I-W(ZN)H**

**Jelly-Filled Construction • Orange FRNC/LSNH Jacket**

-5/55°C	IEC 60332-1	6888	2100	32.9	14.9	Ø 245 ± 10				Reinforced Aramid Yarn			no	200	10	128		
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GIPSxA1																			0.06	1.6	24	32
GIPSxB1																			0.07	1.8	27	36
GIPSxC1																			0.08	2.0	30	40
GIPSxD1																			0.09	2.4	36	48
GIPSxE1																			0.11	2.8	42	56
GIPSxF1																			0.12	3.0	45	60



Strippability secondary coating = 100 cm  
Color Code: see chart page 16.23

Optical characteristics see page 16.21.

## Interconnect Cables

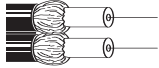
Indoor

De- scription	Part No.	No. of Fibers	Standard Lengths		Standard Unit Weight		Fiber Size µm	Nom. Buffer/ Tube OD		Strength Members	Nominal OD		Central Element mm	Pulling Tension N	Crush Re- sistance kN/m	Energy kJ/m	Bending Radii Cable (mm)	
			ft.	m	lbs.	kg		inch	mm		inch	mm					static	dyna- mic

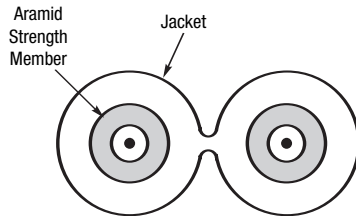
**GIPS • Duplex • Figure 8 • Semi-Tight Buffer • Excellent Strippability • I-W(ZN)H**

**Jelly-Filled Construction • Orange FRNC/LSNH Jacket**

-5/55°C	IEC 60332-1	6888	2100	65.3	29.6	∅ 245 ± 10	Reinforced Aramid Yarn		no	400	20	256						
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GIPSxA2																			0.13	3.3			33	50
GIPSxB2																			0.15	3.7			37	56
GIPSxC2																			0.16	4.1			41	62
GIPSxD2																			0.19	4.9			49	74
GIPSE2																			0.22	5.7			57	86
GIPSF2																			0.24	6.1			61	92

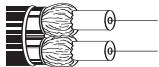


Strippability secondary coating = 100 cm  
Color Code: see chart page 16.23

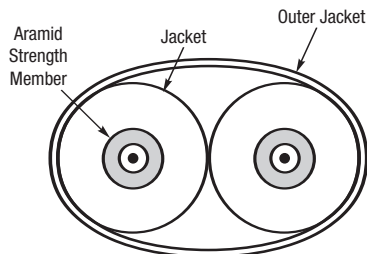
**GIPK • Heavy Duplex • Semi-Tight Buffer • Excellent Strippability • I-K(ZN)HH**

**Dry Construction • Orange FRNC/LSNH Jacket**

-5/55°C	IEC 60332-1	6888	2100	115.3	52.3	∅ 245 ± 10	Reinforced Aramid Yarn		no	400	20	256												
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GIPKxA2																			0.17	4.3			43	65
GIPKxB2																			0.19	4.7			47	71
GIPKxC2																			0.20	5.1			51	77
GIPKxD2																			0.23	5.9			59	89
GIPKE2																			0.26	6.7			67	101
GIPKF2																			0.28	7.1			71	107



Strippability secondary coating = 100 cm  
Color Code: see chart page 16.23

Optical characteristics see page 16.21.

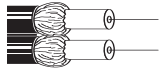
## Interconnect Cables

Indoor

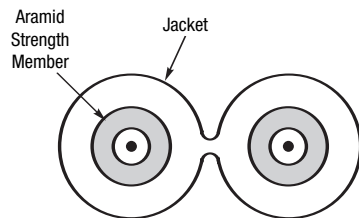
De- scription	Part No.	No. of Fibers	Standard Lengths		Standard Unit Weight		Fiber Size μm	Nom. Buffer/ Tube OD		Strength Members	Nominal OD		Central Element mm	Pulling Tension N	Crush Re- sistance kN/m	Energy kJ/m	Bending Radii Cable (mm)	
			ft.	m	lbs.	kg		inch	mm		inch	mm					static	dyna- mic

**GIPT • Mini-Zip • Figure 8 • Tight Buffer • I-V(ZN)H**

Dry Construction • Orange FRNC/LSNH Jacket																			
-30/70°C	IEC 60332-1		6888	2100	26.4	12.0	Ø 280 ± 15			Reinforced Aramid Yarn		no	400	20	19				



GIPTxA2												0.13	3.4					34	51
GIPTxB2												0.15	3.9					39	58



Color Code: see chart page 16.23

Optical characteristics see page 16.21.

## Breakout Cables

### Indoor

De- scription	Part No.	No. of Fibers	Standard Lengths		Standard Unit Weight		Fiber Size µm	Nom. Buffer/ Tube OD		Strength Members	Nominal OD		Central Element mm	Pulling Tension N	Crush Re- sistance kN/m	Energy kJ/m	Bending Radii Cable (mm)	
			ft.	m	lbs.	kg		inch	mm		inch	mm					static	dyna- mic

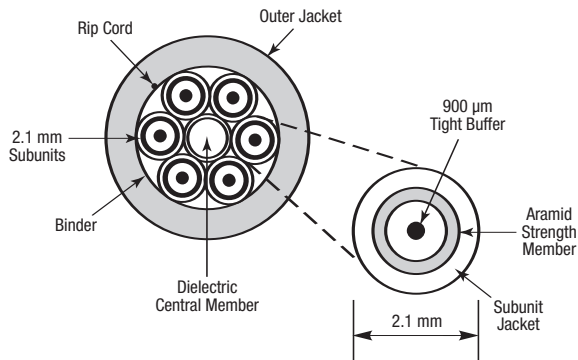
#### GIBT • Tight Buffer • With Rip Cord • I-V(ZN)HH

##### Dry Construction • Orange FRNC/LSNH Jacket

-5/55°C	IEC 60332-1	6888	2100			Ø 280 ± 15			Reinforced Aramid Yarn	0.08	2.1	Filler						
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GIBTx02	2		115.7	52.5					2 + 2 BE	0.21	5.3		400	7.5	379	53	80
GIBTx04	4		143.5	65.1					CE + 4	0.24	6.2		400	7.5	507	62	93
GIBTx06	6		273.1	123.9					CE + 6	0.31	8.0		600	7.5	928	80	120
GIBTx08	8		356.5	161.7					CE + 8	0.37	9.4		800	7.5	1235	94	141
GIBTx12	12		402.8	182.7					3 + 9	0.41	10.5		1200	7.5	1424	105	158
GIBTx24	24		810.2	367.5					2 + 8 + 14	0.56	14.3		2400	7.5	2677	143	215



Color Code: see chart page 16.23

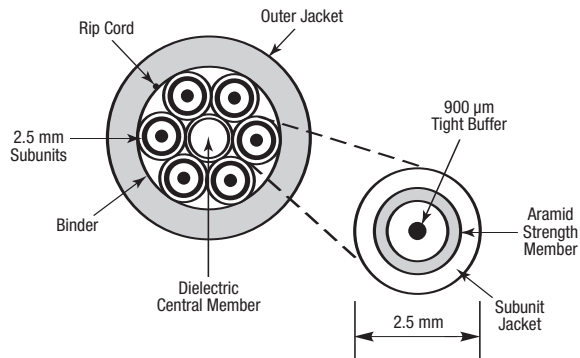
#### GIBK • Semi-Tight Buffer • With Rip Cord • Excellent Strippability • I-K(ZN)HH

##### Dry Construction • Orange FRNC/LSNH Jacket

-5/55°C	IEC 60332-1	6888	2100	115.3	52.3	Ø 245 ± 10			Reinforced Aramid Yarn	0.10	2.5	Filler					
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GIBKx02	2		120.4	54.6					Flat		6.30 x 3.8		400	7.5	382	-	-
GIBKx04	4		185.2	84.0					CE + 4	0.28	7.2		400	7.5	607	72	108
GIBKx06	6		338.0	153.3					CE + 6	0.37	9.4		600	7.5	1124	94	141
GIBKx08	8		430.6	195.3					CE + 8	0.43	10.9		800	7.5	1450	109	164
GIBKx12	12		513.9	233.1					3 + 9	0.46	11.8		1200	7.5	1675	118	177



Color Code: see chart page 16.23

Optical characteristics see page 16.21.

## Mini-Breakout Cables (Distribution)

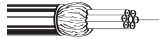
Indoor

De- scription	Part No.	No. of Fibers	Standard Lengths		Standard Unit Weight		Fiber Size μm	Nom. Buffer/ Tube OD		Strength Members	Nominal OD		Central Element mm	Pulling Tension N	Crush Re- sistance kN/m	Energy kJ/m	Bending Radii Cable (mm)	
			ft.	m	lbs.	kg		inch	mm		inch	mm					static	dyna- mic

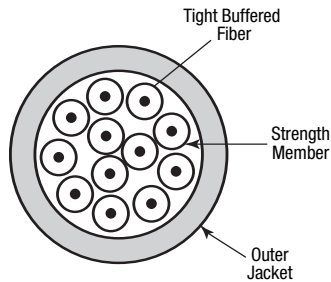
### GIMT • Tight Buffer • I-V(ZN)H

#### Dry Construction • Orange FRNC /LSNH Jacket

-5/55°C	IEC 60332-2	6888	2100			Ø 280 ± 15			Reinforced Aramid Yarn		no			4				
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GIMTx02	2			74.1	33.5						0.16	4.0		400		227	40	60
GIMTx04	4			88.0	39.9						0.19	4.8		400		294	48	72
GIMTx06	6			106.5	48.3						0.21	5.3		450		339	53	80
GIMTx08	8			115.7	52.5						0.21	5.3		450		351	53	80
GIMTx12	12			185.2	84.0						0.28	7.0		500		619	70	105
GIMTx16	16			226.9	102.9						0.31	8.0		500		886	80	120
GIMTx24	24			263.9	119.7						0.35	9.0		600		1044	90	135



Available in multimode only.  
Color Code: see chart page 16.23

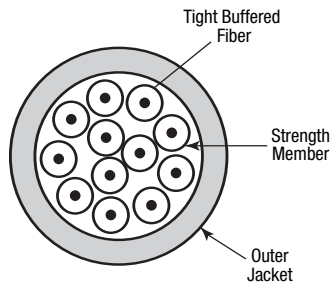
### GIMK • Semi-Tight Buffer • I-K(ZN)H

#### Dry Construction • Orange FRNC /LSNH Jacket

-5/55°C	IEC 60332-2	6888	2100			Ø 245 ± 10			Reinforced Aramid Yarn		no			4				
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GIMKx02	2			88.0	39.9						0.16	4.0		400		235	40	60
GIMKx04	4			92.6	42.0						0.19	4.8		400		310	48	72
GIMKx06	6			106.5	48.3						0.21	5.3		450		339	53	80
GIMKx08	8			120.4	54.6						0.21	5.3		450		381	53	80



Available in multimode only.  
Color Code: see chart page 16.23

Optical characteristics see page 16.21.

### Mini-Breakout Cables (Distribution)

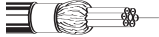
Universal – Indoor/Outdoor, Standard Rodent Protection

De- scription	Part No.	No. of Fibers	Standard Lengths		Standard Unit Weight		Fiber Size µm	Nom. Buffer/ Tube OD		Strength Members	Nominal OD		Central Element mm	Pulling Tension N	Crush Re- sistance kN/m	Energy kJ/m	Bending Radii Cable (mm)	
			ft.	m	lbs.	kg		inch	mm		inch	mm					static	dyna- mic

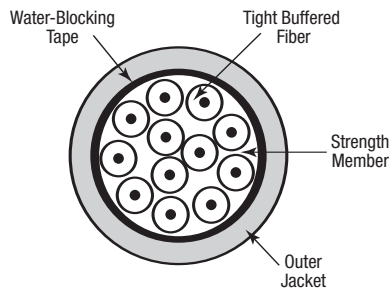
**GUMT • Tight Buffer • A/I-VQ(ZN)H**

**Dry Construction • Orange FRNC/LSNH Jacket**

-30/70°C	IEC 60332-2	6888	2100			∅ 280 ± 15				Longitudinal watertightness Swellable Glass Yarn (6)			no		4			
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<b>GUMTx04</b>	4			120.4	54.6						0.21	5.4		400		296	54	81
<b>GUMTx06</b>	6			138.0	63.0						0.23	5.9		450		347	59	89
<b>GUMTx08</b>	8			148.1	67.2						0.23	5.9		450		371	59	89
<b>GUMTx12</b>	12			208.3	94.5						0.30	7.6		500		622	76	114
<b>GUMTx16</b>	16			245.4	111.3						0.34	8.6		500		845	86	129
<b>GUMTx24</b>	24			300.9	136.5						0.38	9.6		600		1082	96	144



Color Code: see chart page 16.23

Optical characteristics see page 16.21.

### Mini-Breakout Cables (Distribution)

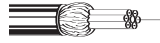
Universal – Indoor/Outdoor, Improved Rodent Protection

De- scription	Part No.	No. of Fibers	Standard Lengths		Standard Unit Weight		Fiber Size µm	Nom. Buffer/ Tube OD		Strength Members	Nominal OD		Central Element mm	Pulling Tension N	Crush Re- sistance kN/m	Energy kJ/m	Bending Radii Cable (mm)	
			ft.	m	lbs.	kg		inch	mm		inch	mm					static	dyna- mic

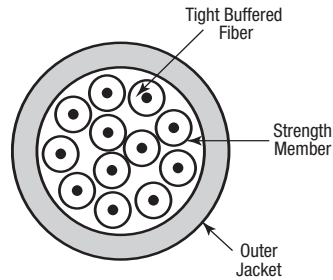
**GUXT • Tight Buffer • A/I-VQ(ZN)BH**

**Dry Construction • Orange FRNC/LSNH Jacket**

-30/70°C IEC 60332-2	6888	2100					Ø 280 ± 15			Longitudinal watertightness Swellable Glass Yarn	no			4				
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<b>GUXTx04</b>	4		203.7	92.4					0.28	7.0	2000			375	70	105
<b>GUXTx06</b>	6		236.1	107.1					0.29	7.3	2000			445	73	110
<b>GUXTx08</b>	8		259.3	117.6					0.29	7.3	2000			472	73	110
<b>GUXTx12</b>	12		351.9	159.6					0.37	9.4	3000			801	94	141
<b>GUXTx24</b>	24		560.2	254.1					0.42	10.6	4000			1243	106	159



Color Code: see chart page 16.23

Optical characteristics see page 16.21.

## Mini-Breakout Cables (Distribution)

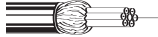
Special – Indoor/Outdoor

De- scription	Part No.	No. of Fibers	Standard Lengths		Standard Unit Weight		Fiber Size µm	Nom. Buffer/ Tube OD		Strength Members	Nominal OD		Central Element mm	Pulling Tension N	Crush Re- sistance kN/m	Energy kJ/m	Bending Radii Cable (mm)	
			ft.	m	lbs.	kg		inch	mm		inch	mm					static	dyna- mic

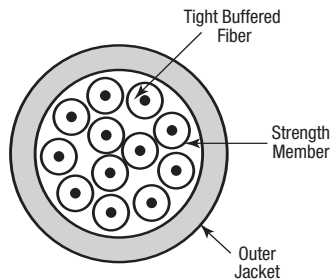
**GMMT • Intex Mobile • Tight Buffer • Designed for Despooling and Respooling • A/I-VQ(ZN)11Y**

**Dry Construction • PUR Jacket (Orange or Black)**

-30/70°C	IEC 60332-1	6888	2100			∅ 280 ± 15				Longitudinal watertightness Swellable Glass Yarn			no					
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GMMTx04	4			143.5	65.1						0.23	5.8		800	4	580	58	87
GMMTx06	6			175.9	79.8						0.25	6.3		950	4	725	63	95
GMMTx08	8			217.6	98.7						0.28	7.0		1100	4	890	70	105



Color Code: see chart page 16.23

Optical characteristics see page 16.21.

## Breakout Kit Cables

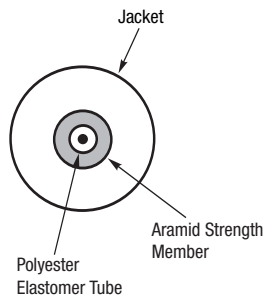
Universal – Indoor/Outdoor

De- scription	Part No.	No. of Fibers	Standard Lengths		Standard Unit Weight		Fiber Size µm	Nom. Buffer/ Tube OD		Strength Members	Nominal OD		Central Element mm	Pulling Tension N	Crush Re- sistance kN/m	Energy kJ/m	Bending radii cable (mm)	
			ft.	m	lbs.	kg		inch	mm		inch	mm					static	dyna- mic

**GIPS • Simplex • With Furcation Tube (no Fiber)**

**Dry Construction • Orange PUR Jacket**

-5/55°C	IEC 60332-2	6888	2100	42.5	19.3					Reinforced Aramid Yarn	0.11	2.8	no	110	–	128	28	42
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Color Code: see chart page 16.23



## Central Loose Tube Cables

### Outdoor – Standard Rodent Protection

De- scription	Part No.	No. of Fibers	Standard Lengths		Standard Unit Weight		Fiber Size µm	Nom. Buffer/ Tube OD		Strength Members	Nominal OD		Central Element mm	Pulling Tension N	Crush Re- sistance kN/m	Energy kJ/m	Bending Radii Cable (mm)	
			ft.	m	lbs.	kg		inch	mm		inch	mm					static	dyna- mic

**GOSA** • Loose Tube (Jelly-Filled, Non-Dripping and Silicone-Free) • Longitudinal Watertightness • **A-DQ(ZN)2Y**

<b>Dry Construction • Black PE (UV-resistant) Jacket</b>																		
-30/70°C			13448	4100	334.4	151.7	Ø 250 ± 15	0.13	3.2	Longitudinal watertightness Swellable Glass Yarn (6)	0.23	5.8	no	700	10	-	58	87



- GOSAx02 2
- GOSAx04 4
- GOSAx06 6
- GOSAx08 8
- GOSAx12 12

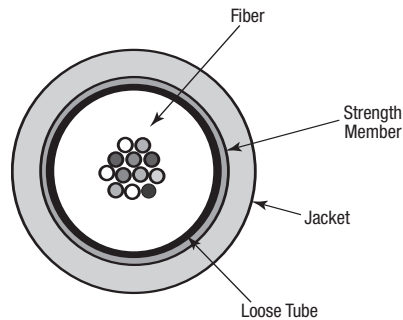
Color Code: see chart page 16.23

**GOSB** • Loose Tube (Jelly-Filled, Non-Dripping and Silicone-Free) • Longitudinal Watertightness • **A-DQ(ZN)2Y**

<b>Dry Construction • Black PE (UV-resistant) Jacket</b>																		
-30/70°C			6888	2100	305.6	138.6	Ø 250 ± 15	0.17	4.2	Longitudinal watertightness Swellable Glass Yarn (6)	0.34	8.7	no	1400	15	-	87	131



- GOSBx02 2
- GOSBx04 4
- GOSBx06 6
- GOSBx08 8
- GOSBx12 12
- GOSBx16 16
- GOSBx24 24



Color Code: see chart page 16.23

Optical characteristics see page 16.21.

## Central Loose Tube Cables

### Outdoor – Improved Rodent Protection

De- scription	Part No.	No. of Fibers	Standard Lengths		Standard Unit Weight		Fiber Size µm	Nom. Buffer/ Tube OD		Strength Members	Nominal OD		Central Element mm	Pulling Tension N	Crush Re- sistance kN/m	Energy kJ/m	Bending Radii Cable (mm)	
			ft.	m	lbs.	kg		inch	mm		inch	mm					static	dyna- mic

**GORA • Loose Tube (Jelly-Filled, Non-Dripping and Silicone-Free) • Longitudinal Watertightness • A-DQ(ZN)B2Y**

**Dry Construction • Black PE (UV-resistant) Jacket**

-30/70°C			13448	4100	497.1	225.5	Ø 250 ± 15	0.13	3.2	Longitudinal watertightness Swellable Glass Yarn (14)	0.28	7.1	no	1400	10	755	71	107
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- GORAx02 2
- GORAx04 4
- GORAx06 6
- GORAx08 8
- GORAx12 12

Color Code: see chart page 16.23

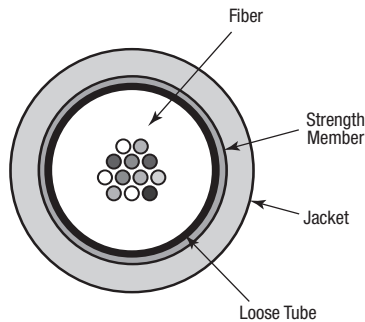
**GORB • Loose Tube (Jelly-Filled, Non-Dripping and Silicone-Free) • Longitudinal Watertightness • A-DQ(ZN)B2Y**

**Dry Construction • Black PE (UV-resistant) Jacket**

-30/70°C			6888	2100	444.4	201.6	Ø 250 ± 15	0.17	4.2	Longitudinal watertightness Swellable Glass Yarn (14)	0.40	10.2	no	4000	15	2200	102	153
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- GORBx02 2
- GORBx04 4
- GORBx06 6
- GORBx08 8
- GORBx12 12
- GORBx16 16
- GORBx24 24



Color Code: see chart page 16.23

Optical characteristics see page 16.21.

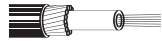
### Central Loose Tube Cables

#### Outdoor – Fiber Reinforced Plastic Armor (FRP), Full Rodent Protection

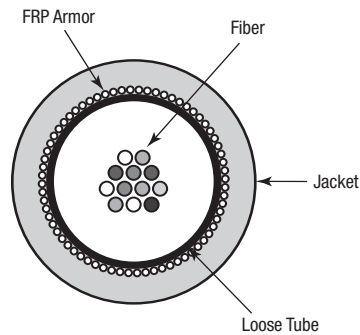
De- scription	Part No.	No. of Fibers	Standard Lengths		Standard Unit Weight		Fiber Size μm	Nom. Buffer/ Tube OD		Strength Members	Nominal OD		Central Element mm	Pulling Tension N	Crush Re- sistance kN/m	Energy kJ/m	Bending Radii Cable (mm)	
			ft.	m	lbs.	kg		inch	mm		inch	mm					static	dyna- mic

**GOFB** • Loose Tube (Jelly-Filled, Non-Dripping and Silicone-Free) • Water-Blocked • FRP • **A-DQB2Y (FRP1.0)**

<b>Dry Construction • Single Black PE Jacket</b>																		
-30/70°C			6888	2100	352.7	160.0	Ø 250 ± 15	0.16	4.0	FRP Rods	0.354	9.0	no	4000	40	-	90	180



- GOFBx02 2
- GOFBx04 4
- GOFBx06 6
- GOFBx08 8
- GOFBx12 12
- GOFBx16 16
- GOFBx24 24



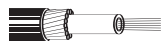
Color Code: see chart page 16.23

#### Outdoor – Steel Wire Armor (SWA), Full Rodent Protection

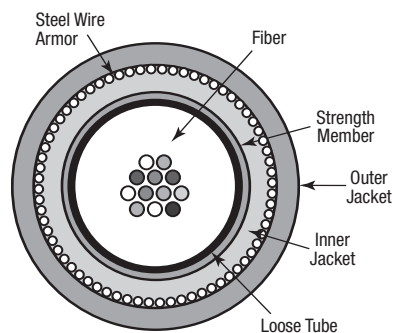
De- scription	Part No.	No. of Fibers	Standard Lengths		Standard Unit Weight		Fiber Size μm	Nom. Buffer/ Tube OD		Strength Members	Nominal OD		Central Element mm	Pulling Tension N	Crush Re- sistance kN/m	Energy kJ/m	Bending radii cable (mm)	
			ft.	m	lbs.	kg		inch	mm		inch	mm					static	dyna- mic

**GOWB** • Loose Tube (Jelly-Filled, Non-Dripping and Silicone-Free) • Longitudinal Watertightness • SWA • **A-DQ(ZN)2YB2Y (R0.63vzk)**

<b>Dry Construction • Double Black PE Jacket</b>																		
-30/70°C			6888	2100	1029.7	467.0	Ø 250 ± 15	0.16	4.0	Longitudinal watertightness Swellable Glass Yarn	0.512	13.0	no	6500	50	-	130	260



- GOWBx02 2
- GOWBx04 4
- GOWBx06 6
- GOWBx08 8
- GOWBx12 12
- GOWBx16 16
- GOWBx24 24



Color Code: see chart page 16.23

Optical characteristics see page 16.21.

### Central Loose Tube Cables

Outdoor – Corrugated Steel Tape Armor (CST), Full Rodent Protection

De- scription	Part No.	No. of Fibers	Standard Lengths		Standard Unit Weight		Fiber Size µm	Nom. Buffer/ Tube OD		Strength Members	Nominal OD		Central Element mm	Pulling Tension N	Crush Re- sistance kN/m	Energy kJ/m	Bending Radii Cable (mm)	
			ft.	m	lbs.	kg		inch	mm		inch	mm					static	dyna- mic

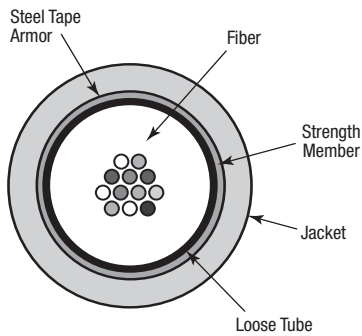
**GOCB • Loose Tube (Jelly-Filled, Non-Dripping and Silicone-Free) • Longitudinal Watertightness • CST • A-DQ(ZN)(SR)2Y**

**Dry Construction • Single Black PE Jacket**

-30/70°C			6888	2100	518.5	235.2	∅ 250 ± 15	0.16	4.0	Longitudinal watertightness Swellable Glass Yarn	0.42	10.6	no	2000	40	-	106	212
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- GOCBx02 2
- GOCBx04 4
- GOCBx06 6
- GOCBx08 8
- GOCBx12 12
- GOCBx16 16
- GOCBx24 24

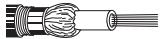


Color Code: see chart page 16.23

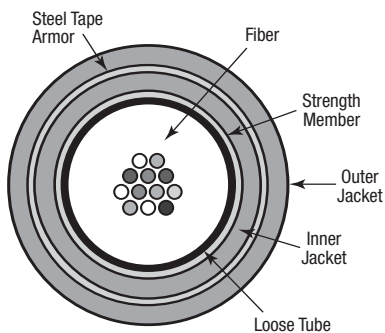
**GOD • Loose Tube (Jelly-Filled, Non-Dripping and Silicone-Free) • Longitudinal Watertightness • CST • A-DQ(ZN)2Y(SR)2Y**

**Dry Construction • Double Black PE Jacket**

-30/70°C			6888	2100			∅ 250 ± 15			Longitudinal watertightness Swellable Glass Yarn								
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GODAx02 2					666.7	302.4		0.11	2.8		0.43	11.0	no	2000	40	-	110	220
GODAx04 4																		
GODAx06 6																		
GODAx08 8																		
GODAx12 12																		
GODBx16 16					822.3	373.0		0.16	4.0		0.496	12.6	no	2000	40	-	126	232
GODBx24 24																		



Color Code: see chart page 16.23

Optical characteristics see page 16.21.

### Central Loose Tube Cables

Universal – Indoor/Outdoor, Standard Rodent Protection

De- scription	Part No.	No. of Fibers	Standard Lengths		Standard Unit Weight		Fiber Size μm	Nom. Buffer/ Tube OD		Strength Members	Nominal OD		Central Element mm	Pulling Tension N	Crush Re- sistance kN/m	Energy kJ/m	Bending Radii Cable (mm)	
			ft.	m	lbs.	kg		inch	mm		inch	mm					static	dyna- mic

**GUSA • Loose Tube (Jelly-Filled, Non-Dripping and Silicone-Free) • Longitudinal Watertightness • A/I-DQ(ZN)H**

<b>Dry Construction • Orange FRNC/LSNH Jacket</b>																		
-30/70°C	IEC 60332-3C		13448	4100	334.4	151.7	∅ 250 ± 15	0.13	3.2	Longitudinal watertightness Swellable Glass Yarn (6)	0.23	5.8	no	700	10	550	58	87



- GUSAx02 2
- GUSAx04 4
- GUSAx06 6
- GUSAx08 8
- GUSAx12 12

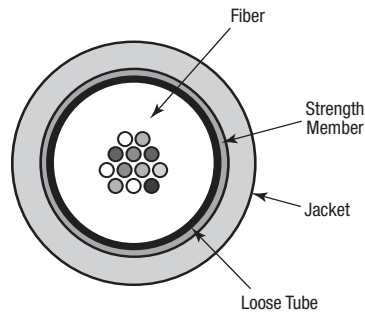
Color Code: see chart page 16.23

**GUSB • Loose Tube (Jelly-Filled, Non-Dripping and Silicone-Free) • Longitudinal Watertightness • A/I-DQ(ZN)H**

<b>Dry Construction • Orange FRNC/LSNH Jacket</b>																		
-30/70°C	IEC 60332-3C		6888	2100	333.3	151.2	∅ 250 ± 15	0.17	4.2	Longitudinal watertightness Swellable Glass Yarn (6)	0.34	8.7	no	1400	15	1370	87	131



- GUSBx02 2
- GUSBx04 4
- GUSBx06 6
- GUSBx08 8
- GUSBx12 12
- GUSBx16 16
- GUSBx24 24



Color Code: see chart page 16.23

Optical characteristics see page 16.21.

## Central Loose Tube Cables

Universal – Indoor/Outdoor, Improved Rodent Protection

De- scription	Part No.	No. of Fibers	Standard Lengths		Standard Unit Weight		Fiber Size µm	Nom. Buffer/ Tube OD		Strength Members	Nominal OD		Central Element mm	Pulling Tension N	Crush Re- sistance kN/m	Energy kJ/m	Bending Radii Cable (mm)	
			ft.	m	lbs.	kg		inch	mm		inch	mm					static	dyna- mic

**GURA** • Loose Tube (Jelly-Filled, Non-Dripping and Silicone-Free) • Longitudinal Watertightness • **A/I-DQ(ZN)BH**

Dry Construction • Orange FRNC/LSNH Jacket																		
-30/70°C	IEC 60332-3C		13448	4100	497.1	225.5	Ø 250 ± 15	0.13	3.2	Longitudinal watertightness Swellable Glass Yarn (14)	0.28	7.1	no	1400	10	755	71	107



- GURAx02 2
- GURAx04 4
- GURAx06 6
- GURAx08 8
- GURAx12 12

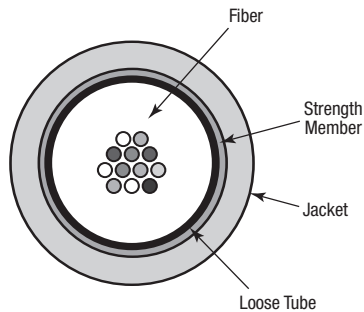
Color Code: see chart page 16.23

**GURB** • Loose Tube (Jelly-Filled, Non-Dripping and Silicone-Free) • Longitudinal Watertightness • **A/I-DQ(ZN)BH**

Dry Construction • Orange FRNC/LSNH Jacket																		
-30/70°C	IEC 60332-3C		6888	2100	481.5	218.4	Ø 250 ± 15	0.17	4.2	Longitudinal watertightness Swellable Glass Yarn (14)	0.40	10.2	no	4000	15	1680	102	153



- GURBx04 4
- GURBx06 6
- GURBx08 8
- GURBx12 12
- GURBx16 16
- GURBx24 24



Color Code: see chart page 16.23

Optical characteristics see page 16.21.

### Central Loose Tube Cables

Universal – Indoor/Outdoor, Corrugated Steel Tape Armor (CST), Full Rodent Protection

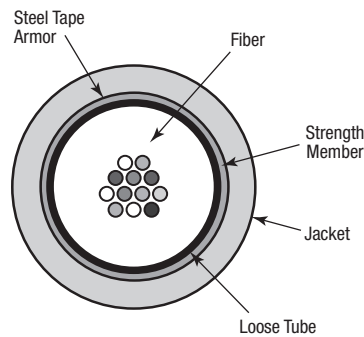
De- scription	Part No.	No. of Fibers	Standard Lengths		Standard Unit Weight		Fiber Size µm	Nom. Buffer/ Tube OD		Strength Members	Nominal OD		Central Element mm	Pulling Tension N	Crush Re- sistance kN/m	Energy kJ/m	Bending radii cable (mm)	
			ft.	m	lbs.	kg		inch	mm		inch	mm					static	dyna- mic

**GUCB** • Loose Tube (Jelly-Filled, Non-Dripping and Silicone-Free) • Longitudinal Watertightness • CST • **A/I-DQ(ZN)(SR)H**

Dry Construction • Single Black FRNC/LSNH Jacket																		
-30/70°C	EN 50266-2-2 EN 50267-2-2 EN 50268-2, EN 60331-25		6888	2100	685.2	310.8	∅ 250 ± 15	0.16	4.0	Longitudinal watertightness Swellable Glass Yarn	0.42	10.6	no	2000	40	-	106	212



- GUCBx02 2
- GUCBx04 4
- GUCBx06 6
- GUCBx08 8
- GUCBx12 12
- GUCBx16 16
- GUCBx24 24



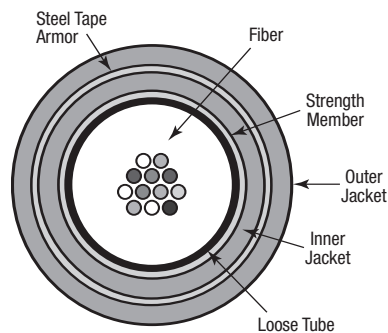
Color Code: see chart page 16.23

**GUD** • Loose Tube (Jelly-Filled, Non-Dripping and Silicone-Free) • Longitudinal Watertightness • CST • **A/I-DQ(ZN)H(SR)H**

Dry Construction • Double Black FRNC/LSNH Jacket																		
-30/70°C	EN 50266-2-2 EN 50267-2-2 EN 50268-2		6888	2100			∅ 250 ± 15			Longitudinal watertightness Swellable Glass Yarn								



- GUDAx02 2
- GUDAx04 4
- GUDAx06 6
- GUDAx08 8
- GUDAx10 10
- GUDAx12 12
- GUDBx16 16
- GUDBx24 24



Color Code: see chart page 16.23

Optical characteristics see page 16.21.

16 • Networking – Fiber

### Central Loose Tube Cables

Universal – Indoor/Outdoor, Steel Wire Armor (SWA), Full Rodent Protection

De- scription	Part No.	No. of Fibers	Standard Lengths		Standard Unit Weight		Fiber Size µm	Nom. Buffer/ Tube OD		Strength Members	Nominal OD		Central Element mm	Pulling Tension N	Crush Re- sistance kN/m	Energy kJ/m	Bending Radii Cable (mm)	
			ft.	m	lbs.	kg		inch	mm		inch	mm					static	dyna- mic

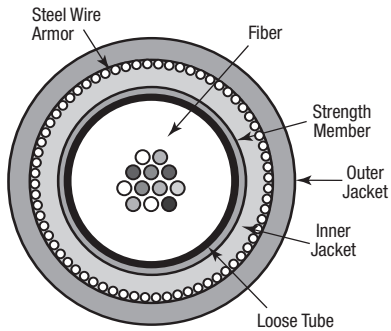
**GUWB • Loose Tube (Jelly-Filled, Non-Dripping and Silicone-Free) • Longitudinal Watertightness • SWA • A/I-DQ(ZN)HBH (R0.63vzk)**

**Dry Construction • Double Black FRNC/LSNH Jacket**

-30/70°C	6888	2100	1263.8	561.0	∅ 250 ± 15	0.16	4.0	Longitudinal watertightness Swellable Glass Yarn	0.51	13.0	no	6500	50	-	130	260
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- GUWBx02 2
- GUWBx04 4
- GUWBx06 6
- GUWBx08 8
- GUWBx12 12
- GUWBx16 16
- GUWBx24 24



Color Code: see chart page 16.23

Optical characteristics see page 16.21.



## Multi Loose Tube Cables

## Outdoor

De- scription	Part No.	No. of Fibers	Standard Lengths		Standard Unit Weight		Fiber Size μm	Nom. Buffer/ Tube OD		Strength Members	Nominal OD		Central Element mm	Pulling Tension N	Crush Re- sistance kN/m	Energy kJ/m	Bending Radii Cable (mm)	
			ft.	m	lbs.	kg		inch	mm		inch	mm					static	dyna- mic

**GBA** • Loose Tubes\*/PE Blind Elements are S-Z Stranded Around the Central Element • Water-Blocked • **A-DQ(ZN)2Y**

**Dry Construction • Black PE (HDPE) Jacket**

-30/70°C

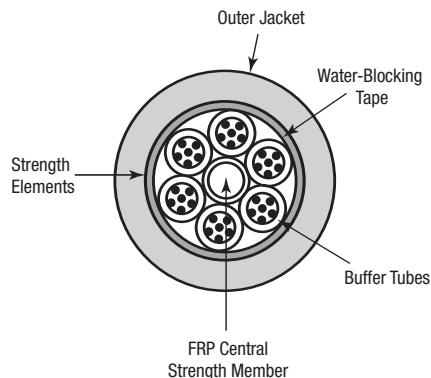


<b>GBAGx04</b>	4 (1x4)	6888	2100	333.3	151.2	Ø 250 ± 15	0.07	1.9	Water-blocking Aramid Yarn	0.41	10.3	2.0	3000	20	-	155	206
<b>GBAGx06</b>	6 (1x6)	13448	4100	650.8	295.2												
<b>GBAGx08</b>	8 (2x4)																
<b>GBAGx12</b>	12 (2x6)																
<b>GBAGx18</b>	18 (3x6)																
<b>GBAGx24</b>	24 (4x6)																
<b>GBAGx30</b>	30 (5x6)																
<b>GBAGx36</b>	36 (6x6)																
<b>GBADx24</b>	24 (2x12)	6888	2100	458.3	207.9	Ø 250 ± 15	0.10	2.5	Water-blocking Aramid Yarn	0.48	12.2	2.7	3500	20	-	183	244
<b>GBADx36</b>	36 (3x12)	13448	4100	894.8	405.9												
<b>GBADx48</b>	48 (4x12)																
<b>GBADx60</b>	60 (5x12)																
<b>GBADx72</b>	72 (6x12)																
<b>GBAEx84</b>	84 (7x12)	6888	2100	588.0	266.7	Ø 250 ± 15	0.10	2.5	Water-blocking Aramid Yarn	0.54	13.8	3.0/4.3	4000	20	-	207	276
<b>GBAEx96</b>	96 (8x12)	13448	4100	1147.9	520.7												
<b>GBAFx08</b>	108 (9x12)	6888	2100	888.9	403.2	Ø 250 ± 15	0.10	2.5	Water-blocking Aramid Yarn	0.67	17.0	3.0/7.5	4000	20	-	255	340
<b>GBAFx20</b>	120 (10x12)	13448	4100	1735.5	787.2												
<b>GBAFx32</b>	132 (11x12)																
<b>GBAFx44</b>	144 (12x12)																
<b>GBAMx16</b>	216 (18x12)	6888	2100	1041.7	472.5	Ø 250 ± 15	0.10	2.5	Water-blocking Aramid Yarn	0.72	18.2	2.7	4000	20	-	273	364
		13448	4100	2033.7	922.5												
<b>GBAlx92</b>	192 (8x24)	6888	2100	1064.8	483.0	Ø 250 ± 15	0.14	3.5	Water-blocking Aramid Yarn	0.71	18.0	3.0/6.0	4000	20	-	270	360
		13448	4100	2078.9	943.0												
<b>GBAJx88</b>	288 (12x24)	6888	2100	1643.5	745.5	Ø 250 ± 15	0.14	3.5	Water-blocking Aramid Yarn	0.88	22.4	3.0/10.5	4000	20	-	336	448
<b>GBALx32</b>	432 (18x24)	6888	2100	1643.5	745.5	Ø 250 ± 15	0.14	3.5	Water-blocking Aramid Yarn	0.91	23.2	2.7/3.7	4000	20	-	348	464

Color Code: see chart page 16.23

Loose tubes: 1. Red, 2. Green, rest of tubes White

Blind elements: Clear



Optical characteristics see page 16.21.

\* jelly-filled, non-dripping and silicone-free

## Multi Loose Tube Cables

## Outdoor

De- scription	Part No.	No. of Fibers	Standard Lengths		Standard Unit Weight		Fiber Size $\mu\text{m}$	Nom. Buffer/ Tube OD		Strength Members	Nominal OD		Central Element mm	Pulling Tension N	Crush Re- sistance kN/m	Energy kJ/m	Bending Radii Cable (mm)	
			ft.	m	lbs.	kg		inch	mm		inch	mm					static	dyna- mic

**GDA** • Loose Tubes\*/PE Blind Elements are S-Z Stranded Around the Central Element • Water-Blocked • **A-DF(ZN)2Y**

**Filled Construction • Black PE (HDPE) Jacket**

-30/70°C

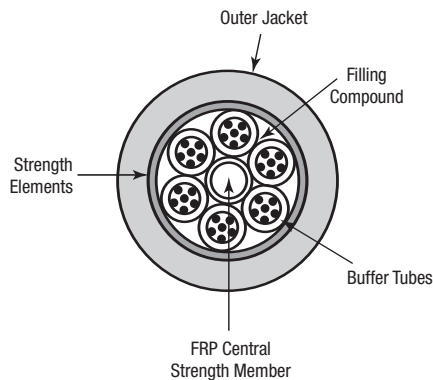


<b>GDA</b> Gx04	4 (1x4)	6888	2100	342.6	155.4	$\emptyset 250 \pm 15$	0.07	1.9	Water-blocking Aramid Yarn	0.39	10.0	2.0	3000	20	-	150	200
<b>GDA</b> Gx06	6 (1x6)	13448	4100	668.9	303.4												
<b>GDA</b> Gx08	8 (2x4)																
<b>GDA</b> Gx12	12 (2x6)																
<b>GDA</b> Gx18	18 (3x6)																
<b>GDA</b> Gx24	24 (4x6)																
<b>GDA</b> Gx30	30 (5x6)																
<b>GDA</b> Gx36	36 (6x6)																
<b>GDA</b> Dx24	24 (2x12)	6888	2100	490.7	222.6	$\emptyset 250 \pm 15$	0.10	2.5	Water-blocking Aramid Yarn	0.47	12.0	2.7	3500	20	-	180	240
<b>GDA</b> Dx36	36 (3x12)	13448	4100	958.1	434.6												
<b>GDA</b> Dx48	48 (4x12)																
<b>GDA</b> Dx60	60 (5x12)																
<b>GDA</b> Dx72	72 (6x12)																
<b>GDA</b> Ex84	84 (7x12)	6888	2100	629.6	285.6	$\emptyset 250 \pm 15$	0.10	2.5	Water-blocking Aramid Yarn	0.54	13.6	3.0/4.3	4000	20	-	204	272
<b>GDA</b> Ex96	96 (8x12)	13448	4100	1229.3	557.6												
<b>GDA</b> Fx08	108 (9x12)	6888	2100	949.1	430.5	$\emptyset 250 \pm 15$	0.10	2.5	Water-blocking Aramid Yarn	0.66	16.8	3.0/7.5	4000	20	-	252	336
<b>GDA</b> Fx20	120 (10x12)	13448	4100	1853.0	840.5												
<b>GDA</b> Fx32	132 (11x12)																
<b>GDA</b> Fx44	144 (12x12)																
<b>GDA</b> Mx16	216 (18x12)	6888 13448	2100 4100	1134.3 2214.5	514.5 1004.5	$\emptyset 250 \pm 15$	0.10	2.5	Water-blocking Aramid Yarn	0.69	17.5	2.7	4000	20	-	263	350
<b>GDA</b> Ix92	192 (8x24)	6888 13448	2100 4100	1041.7 2033.7	472.5 922.5	$\emptyset 250 \pm 15$	0.14	3.5	Water-blocking Aramid Yarn	0.69	17.6	3.0/6.0	4000	20	-	264	352
<b>GDA</b> Jx88	288 (12x24)	6888	2100	1736.1	787.5	$\emptyset 250 \pm 15$	0.14	3.5	Water-blocking Aramid Yarn	0.87	22.1	3.0/10.5	4000	20	-	332	442
<b>GDA</b> Lx32	432 (18x24)	6888	2100	1851.9	840.0	$\emptyset 250 \pm 15$	0.14	3.5	Water-blocking Aramid Yarn	0.89	22.5	2.7/3.7	4000	20	-	338	450

Color Code: see chart page 16.23

Loose tubes: 1. Red, 2. Green, rest of tubes White

Blind elements: Clear



Optical characteristics see page 16.21.

\* jelly-filled, non-dripping and silicone-free

## Multi Loose Tube Cables

### Outdoor – Improved Rodent Protection

De- scription	Part No.	No. of Fibers	Standard Lengths		Standard Unit Weight		Fiber Size μm	Nom. Buffer/ Tube OD		Strength Members	Nominal OD		Central Element mm	Pulling Tension N	Crush Re- sistance kN/m	Energy kJ/m	Bending Radii Cable (mm)	
			ft.	m	lbs.	kg		inch	mm		inch	mm					static	dyna- mic

**GBR** • Loose Tubes\*/PE Blind Elements are S-Z Stranded Around the Central Element • Water-Blocked • **A-DQ(ZN)B2Y**

**Dry Construction • Black PE (HDPE) Jacket**

-30/70°C

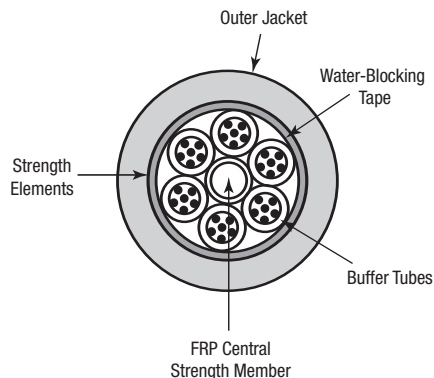


<b>GBRGx04</b>	4 (1x4)	6888	2100	486.1	220.5	∅ 250 ± 15	0.07	1.9	Water-blocking Glass Yarn	0.46	11.8	2.0	3000	20	-	177	236	
<b>GBRGx06</b>	6 (1x6)	13448	4100	949.1	430.5													
<b>GBRGx08</b>	8 (2x4)																	
<b>GBRGx12</b>	12 (2x6)																	
<b>GBRGx18</b>	18 (3x6)																	
<b>GBRGx24</b>	24 (4x6)																	
<b>GBRGx30</b>	30 (5x6)																	
<b>GBRGx36</b>	36 (6x6)																	
<b>GBRDx24</b>	24 (2x12)	6888	2100	625.0	283.5	∅ 250 ± 15	0.10	2.5	Water-blocking Glass Yarn	0.54	13.7	2.7	3500	20	-	206	274	
<b>GBRDx36</b>	36 (3x12)	13448	4100	1220.2	553.5													
<b>GBRDx48</b>	48 (4x12)																	
<b>GBRDx60</b>	60 (5x12)																	
<b>GBRDx72</b>	72 (6x12)																	
<b>GBREx84</b>	84 (7x12)	6888	2100	787.0	357.0	∅ 250 ± 15	0.10	2.5	Water-blocking Glass Yarn	0.60	15.3	3.0/4.3	4000	20	-	230	306	
<b>GBREx96</b>	96 (8x12)	13448	4100	1536.6	697.0													
<b>GBRFx08</b>	108 (9x12)	6888	2100	1088.0	493.5	∅ 250 ± 15	0.10	2.5	Water-blocking Glass Yarn	0.73	18.5	3.0/7.5	4000	20	-	278	370	
<b>GBRFx20</b>	120 (10x12)	13448	4100	2124.1	963.5													
<b>GBRFx32</b>	132 (11x12)																	
<b>GBRFx44</b>	144 (12x12)																	
<b>GBRMx16</b>	216 (18x12)	6888	2100	1250.0	567.0	∅ 250 ± 15	0.10	2.5	Water-blocking Glass Yarn	0.78	19.7	2.7	4000	20	-	296	394	
		13448	4100	2440.5	1107.0													
<b>GBRlx92</b>	192 (8x24)	6888	2100	1296.3	588.0	∅ 250 ± 15	0.14	3.5	Water-blocking Glass Yarn	0.77	19.5	3.0/6.0	4000	20	-	293	390	
		13448	4100	2530.9	1148.0													
<b>GBRJx88</b>	288 (12x24)	6888	2100	1898.2	861.0	∅ 250 ± 15	0.14	3.5	Water-blocking Glass Yarn	0.94	23.9	3.0/10.5	4000	20	-	359	478	
<b>GBRLx32</b>	432 (18x24)	6888	2100	1898.2	861.0	∅ 250 ± 15	0.14	3.5	Water-blocking Glass Yarn	0.97	24.7	2.7/3.7	4000	20	-	371	494	

Color Code: see chart page 16.23

Loose tubes: 1. Red, 2. Green, rest of tubes White

Blind elements: Clear



Optical characteristics see page 16.21.

\* jelly-filled, non-dripping and silicone-free

## Multi Loose Tube Cables

### Outdoor – Improved Rodent Protection

De- scription	Part No.	No. of Fibers	Standard Lengths		Standard Unit Weight		Fiber Size µm	Nom. Buffer/ Tube OD		Strength Members	Nominal OD		Central Element mm	Pulling Tension N	Crush Re- sistance kN/m	Energy kJ/m	Bending Radii Cable (mm)	
			ft.	m	lbs.	kg		inch	mm		inch	mm					static	dyna- mic

**GDR** • Loose Tubes\*/PE Blind Elements are S-Z Stranded Around the Central Element • Water-Blocked • **A-DF(ZN)B2Y**

**Filled Construction • Black PE (HDPE) Jacket**

-30/70°C

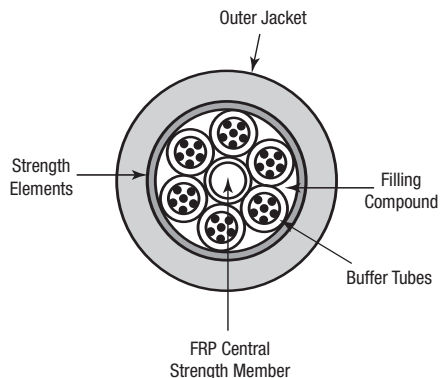


<b>GDRGx04</b>	4 (1x4)	6888	2100	476.9	216.3	∅ 250 ± 15	0.07	1.9	Water-blocking Glass Yarn	0.45	11.5	2.0	3000	20	-	173	230
<b>GDRGx06</b>	6 (1x6)	13448	4100	931.0	422.3												
<b>GDRGx08</b>	8 (2x4)																
<b>GDRGx12</b>	12 (2x6)																
<b>GDRGx18</b>	18 (3x6)																
<b>GDRGx24</b>	24 (4x6)																
<b>GDRGx30</b>	30 (5x6)																
<b>GDRGx36</b>	36 (6x6)																
<b>GDRDx24</b>	24 (2x12)	6888	2100	629.6	285.6	∅ 250 ± 15	0.10	2.5	Water-blocking Glass Yarn	0.53	13.4	2.7	3500	20	-	201	268
<b>GDRDx36</b>	36 (3x12)	13448	4100	1229.3	557.6												
<b>GDRDx48</b>	48 (4x12)																
<b>GDRDx60</b>	60 (5x12)																
<b>GDRDx72</b>	72 (6x12)																
<b>GDREx84</b>	84 (7x12)	6888	2100	805.6	365.4	∅ 250 ± 15	0.10	2.5	Water-blocking Glass Yarn	0.59	15.0	3.0/4.3	4000	20	-	225	300
<b>GDREx96</b>	96 (8x12)	13448	4100	1572.8	713.4												
<b>GDRFx08</b>	108 (9x12)	6888	2100	1134.3	514.5	∅ 250 ± 15	0.10	2.5	Water-blocking Glass Yarn	0.72	18.2	3.0/7.5	4000	20	-	273	364
<b>GDRFx20</b>	120 (10x12)	13448	4100	2214.5	1004.5												
<b>GDRFx32</b>	132 (11x12)																
<b>GDRFx44</b>	144 (12x12)																
<b>GDRMx16</b>	216 (18x12)	6888 13448	2100 4100	1319.5 2576.1	598.5 1168.5	∅ 250 ± 15	0.10	2.5	Water-blocking Glass Yarn	0.75	19.0	2.7	4000	20	-	285	380
<b>GDRix92</b>	192 (8x24)	6888 13448	2100 4100	1226.9 2395.3	556.5 1086.5	∅ 250 ± 15	0.14	3.5	Water-blocking Glass Yarn	0.75	19.0	3.0/6.0	4000	20	-	285	380
<b>GDRJx88</b>	288 (12x24)	6888 13448	2100 4100	1944.5 3796.3	882.0 1722.0	∅ 250 ± 15	0.14	3.5	Water-blocking Glass Yarn	0.93	23.5	3.0/10.5	4000	20	-	353	470
<b>GDRLx32</b>	432 (18x24)	6888 13448	2100 4100	2037.1 3977.1	924.0 1804.0	∅ 250 ± 15	0.14	3.5	Water-blocking Glass Yarn	0.94	24.0	2.7/3.7	4000	20	-	360	480

Color Code: see chart page 16.23

Loose tubes: 1. Red, 2. Green, rest of tubes White

Blind elements: Clear



Optical characteristics see page 16.21.

\* jelly-filled, non-dripping and silicone-free

## Multi Loose Tube Cables

Outdoor – Full Rodent Protection, Corrugated Steel Tape Armor (CST)

De- scription	Part No.	No. of Fibers	Standard Lengths		Standard Unit Weight		Fiber Size μm	Nom. Buffer/ Tube OD		Strength Members	Nominal OD		Central Element mm	Pulling Tension N	Crush Re- sistance kN/m	Energy kJ/m	Bending Radii Cable (mm)	
			ft.	m	lbs.	kg		inch	mm		inch	mm					static	dyna- mic

**GBD** • Loose Tubes\*/PE Blind Elements are S-Z Stranded Around the Central Element • Water-Blocked • CST • **A-DQ(ZN)2Y(SR)2Y**

**Dry Construction • Double Black PE (HDPE) Jacket**

-30/70°C

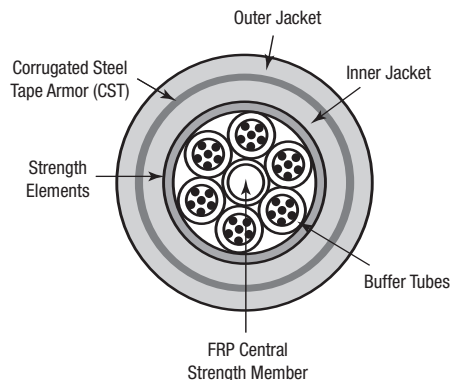


<b>GBDGx04</b>	4 (1x4)	6888	2100	838.0	380.1	∅ 250 ± 15	0.07	1.9	Water-blocking Aramid Yarn	0.52	13.2	2.0	3000	50	–	198	264
<b>GBDGx06</b>	6 (1x6)	13448	4100	1636.0	742.1												
<b>GBDGx08</b>	8 (2x4)																
<b>GBDGx12</b>	12 (2x6)																
<b>GBDGx18</b>	18 (3x6)																
<b>GBDGx24</b>	24 (4x6)																
<b>GBDGx30</b>	30 (5x6)																
<b>GBDGx36</b>	36 (6x6)																
<b>GBDDx24</b>	24 (2x12)	6888	2100	1046.3	474.6	∅ 250 ± 15	0.10	2.5	Water-blocking Aramid Yarn	0.60	15.2	2.7	3500	50	–	228	304
<b>GBDDx36</b>	36 (3x12)																
<b>GBDDx48</b>	48 (4x12)																
<b>GBDDx60</b>	60 (5x12)																
<b>GBDDx72</b>	72 (6x12)																
<b>GBDEx84</b>	84 (7x12)	6888	2100	1273.2	577.5	∅ 250 ± 15	0.10	2.5	Water-blocking Aramid Yarn	0.69	17.4	3.0/4.3	4000	50	–	261	348
<b>GBDEx96</b>	96 (8x12)																
<b>GBDFx08</b>	108 (9x12)	6888	2100	1555.6	705.6	∅ 250 ± 15	0.10	2.5	Water-blocking Aramid Yarn	0.81	20.5	3.0/7.5	4000	50	–	308	410
<b>GBDFx20</b>	120 (10x12)																
<b>GBDFx32</b>	132 (11x12)																
<b>GBDFx44</b>	144 (12x12)																
<b>GBDMx16</b>	216 (18x12)	6888	2100	1759.3	798.0	∅ 250 ± 15	0.10	2.5	Water-blocking Aramid Yarn	0.85	21.5	2.7	4000	50	–	323	430
<b>GBDLx92</b>	192 (8x24)	6888	2100	–	–	∅ 250 ± 15	0.14	3.5	Water-blocking Aramid Yarn	0.85	21.5	3.0/6.0	4000	50	–	323	430
<b>GBDJx88</b>	288 (12x24)	6888	2100	–	–	∅ 250 ± 15	0.14	3.5	Water-blocking Aramid Yarn	1.02	26.0	3.0/10.5	4000	50	–	390	520
<b>GBDLx32</b>	432 (18x24)	6888	2100	–	–	∅ 250 ± 15	0.14	3.5	Water-blocking Aramid Yarn	1.04	26.5	2.7/3.7	4000	50	–	398	530

Color Code: see chart page 16.23

Loose tubes: 1. Red, 2. Green, rest of tubes White

Blind elements: Clear



Optical characteristics see page 16.21.

\* jelly-filled, non-dripping and silicone-free

## Multi Loose Tube Cables

Outdoor – Full Rodent Protection, Corrugated Steel Tape Armor (CST)

De- scription	Part No.	No. of Fibers	Standard Lengths		Standard Unit Weight		Fiber Size µm	Nom. Buffer/ Tube OD		Strength Members	Nominal OD		Central Element mm	Pulling Tension N	Crush Re- sistance kN/m	Energy kJ/m	Bending Radii Cable (mm)	
			ft.	m	lbs.	kg		inch	mm		inch	mm					static	dyna- mic

**GDD** • Loose Tubes\*/PE Blind Elements are S-Z Stranded Around the Central Element • Water-Blocked • CST • **A-DF(ZN)2Y(SR)2Y**

**Filled Construction • Double Black PE (HDPE) Jacket**

-30/70°C

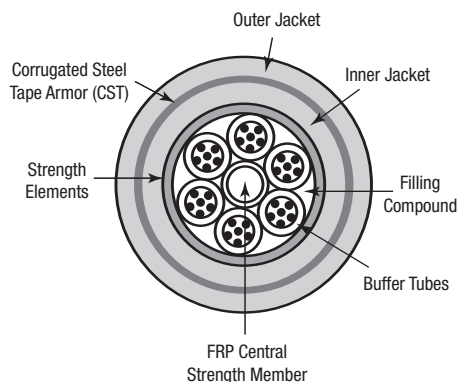


<b>GDDGx04</b>	4 (1x4)	6888	2100	851.9	386.4	Ø 250 ± 15	0.07	1.9	Water-blocking Aramid Yarn	0.51	13.0	2.0	3000	50	–	195	260
<b>GDDGx06</b>	6 (1x6)	13448	4100	1663.2	754.4												
<b>GDDGx08</b>	8 (2x4)																
<b>GDDGx12</b>	12 (2x6)																
<b>GDDGx18</b>	18 (3x6)																
<b>GDDGx24</b>	24 (4x6)																
<b>GDDGx30</b>	30 (5x6)																
<b>GDDGx36</b>	36 (6x6)																
<b>GDDx24</b>	24 (2x12)	6888	2100	1083.3	491.4	Ø 250 ± 15	0.10	2.5	Water-blocking Aramid Yarn	0.59	15.0	2.7	3500	50	–	225	300
<b>GDDx36</b>	36 (3x12)																
<b>GDDx48</b>	48 (4x12)																
<b>GDDx60</b>	60 (5x12)																
<b>GDDx72</b>	72 (6x12)																
<b>GDDEx84</b>	84 (7x12)	6888	2100	1319.5	598.5	Ø 250 ± 15	0.10	2.5	Water-blocking Aramid Yarn	0.67	17.1	3.0/4.3	4000	50	–	257	342
<b>GDDEx96</b>	96 (8x12)																
<b>GDDFx08</b>	108 (9x12)	6888	2100	1745.4	791.7	Ø 250 ± 15	0.10	2.5	Water-blocking Aramid Yarn	0.81	20.5	3.0/7.5	4000	50	–	308	410
<b>GDDFx20</b>	120 (10x12)																
<b>GDDFx32</b>	132 (11x12)																
<b>GDDFx44</b>	144 (12x12)																
<b>GDDMx16</b>	216 (18x12)	6888	2100	1990.8	903.0	Ø 250 ± 15	0.10	2.5	Water-blocking Aramid Yarn	0.83	21.0	2.7	4000	50	–	315	420
<b>GDDIx92</b>	192 (8x24)	6888	2100	–	–	Ø 250 ± 15	0.14	3.5	Water-blocking Aramid Yarn	0.83	21.0	3.0/6.0	4000	50	–	315	420
<b>GDDJx88</b>	288 (12x24)	6888	2100	–	–	Ø 250 ± 15	0.14	3.5	Water-blocking Aramid Yarn	1.00	25.5	3.0/10.5	4000	50	–	383	510
<b>GDDLx32</b>	432 (18x24)	6888	2100	–	–	Ø 250 ± 15	0.14	3.5	Water-blocking Aramid Yarn	1.02	26.0	2.7/3.7	4000	50	–	390	520

Color Code: see chart page 16.23

Loose tubes: 1. Red, 2. Green, rest of tubes White

Blind elements: Clear



Optical characteristics see page 16.21.

\* jelly-filled, non-dripping and silicone-free

### Multi Loose Tube Cables

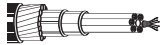
Outdoor – Full Rodent Protection, Galvanised Steel Wire Armor (SWA)

De- scription	Part No.	No. of Fibers	Standard Lengths		Standard Unit Weight		Fiber Size µm	Nom. Buffer/ Tube OD		Strength Members	Nominal OD		Central Element mm	Pulling Tension N	Crush Re- sistance kN/m	Energy kJ/m	Bending Radii Cable (mm)	
			ft.	m	lbs.	kg		inch	mm		inch	mm					static	dyna- mic

**GBW** • Loose Tubes\*/PE Blind Elements are S-Z Stranded Around the Central Element • Water-Blocked • SWA • **A-DQ2YB2Y (R1.0vzk)**

**Dry Construction • Double Black PE Jacket**

-30/70°C

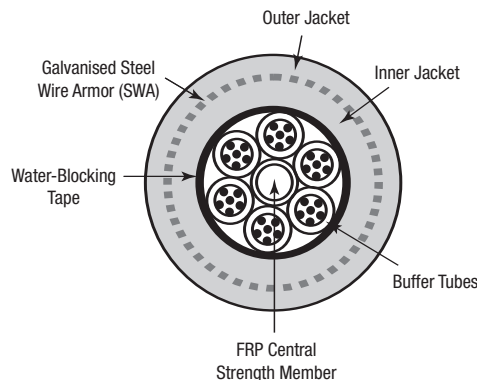


<b>GBWGx04</b> 4 (1x4)	6888	2100	1342.6	609.0	∅ 250 ± 15	0.07	1.9	-	0.53	13.5	2.0	8000	50	-	203	270
<b>GBWGx06</b> 6 (1x6)	13448	4100	2621.3	1189.0												
<b>GBWGx08</b> 8 (2x4)																
<b>GBWGx12</b> 12 (2x6)																
<b>GBWGx18</b> 18 (3x6)																
<b>GBWGx24</b> 24 (4x6)																
<b>GBWGx30</b> 30 (5x6)																
<b>GBWGx36</b> 36 (6x6)																
<b>GBWDx24</b> 24 (2x12)	6888	2100	1666.7	756.0	∅ 250 ± 15	0.10	2.5	-	0.61	15.5	2.7	8000	50	-	233	310
<b>GBWDx36</b> 36 (3x12)	13448	4100	3254.0	1476.0												
<b>GBWDx48</b> 48 (4x12)																
<b>GBWDx60</b> 60 (5x12)																
<b>GBWDx72</b> 72 (6x12)																
<b>GBWEx84</b> 84 (7x12)	6888	2100	1875.0	850.5	∅ 250 ± 15	0.10	2.5	-	0.67	17.0	3.0/4.3	8000	50	-	255	340
<b>GBWEx96</b> 96 (8x12)	13448	4100	3660.7	1660.5												
<b>GBWEx08</b> 108 (9x12)	6888	2100	2592.6	1176.0	∅ 250 ± 15	0.10	2.5	-	0.80	20.2	3.0/7.5	8000	50	-	303	404
<b>GBWEx20</b> 120 (10x12)	13448	4100	5061.8	2296.0												
<b>GBWEx32</b> 132 (11x12)																
<b>GBWEx44</b> 144 (12x12)																
<b>GBWMx16</b> 216 (18x12)	6888	2100	2777.8	1260.0	∅ 250 ± 15	0.10	2.5	-	0.83	21.0	2.7	8000	50	-	315	420
<b>GBWix92</b> 192 (8x24)	6888	2100	-	-	∅ 250 ± 15	0.14	3.5	-	0.83	21.0	3.0/6.0	8000	50	-	315	420
<b>GBWJx88</b> 288 (12x24)	6888	2100	-	-	∅ 250 ± 15	0.14	3.5	-	1.00	25.5	3.0/10.5	8000	50	-	383	510
<b>GBWLx32</b> 432 (18x24)	6888	2100	-	-	∅ 250 ± 15	0.14	3.5	-	1.02	26.0	2.7/3.7	8000	50	-	390	520

Color Code: see chart page 16.23

Loose tubes: 1. Red, 2. Green, rest of tubes White

Blind elements: Clear



Optical characteristics see page 16.21.  
\* jelly-filled, non-dripping and silicone-free

## Multi Loose Tube Cables

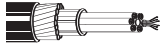
Outdoor – Full Rodent Protection, Galvanised Steel Wire Armor (SWA)

De- scription	Part No.	No. of Fibers	Standard Lengths		Standard Unit Weight		Fiber Size µm	Nom. Buffer/ Tube OD		Strength Members	Nominal OD		Central Element mm	Pulling Tension N	Crush Re- sistance kN/m	Energy kJ/m	Bending Radii Cable (mm)	
			ft.	m	lbs.	kg		inch	mm		inch	mm					static	dyna- mic

**GDW** • Loose Tubes\*/PE Blind Elements are S-Z Stranded Around the Central Element • Water-Blocked • SWA • **A-DF2YB2Y (R1.0vzk)**

**Filled Construction • Double Black PE Jacket**

-30/70°C

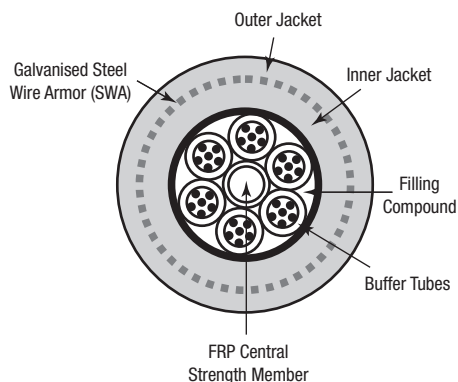


<b>GDWGx04</b> 4 (1x4)	6888	2100	1388.9	630.0	∅ 250 ± 15	0.07	1.9	–	0.53	13.5	2.0	8000	50	–	203	270
<b>GDWGx06</b> 6 (1x6)	13448	4100	2711.7	1230.0												
<b>GDWGx08</b> 8 (2x4)																
<b>GDWGx12</b> 12 (2x6)																
<b>GDWGx18</b> 18 (3x6)																
<b>GDWGx24</b> 24 (4x6)																
<b>GDWGx30</b> 30 (5x6)																
<b>GDWGx36</b> 36 (6x6)																
<b>GDWDx24</b> 24 (2x12)	6888	2100	1713.0	777.0	∅ 250 ± 15	0.10	2.5	–	0.61	15.5	2.7	8000	50	–	233	310
<b>GDWDx36</b> 36 (3x12)	13448	4100	3344.4	1517.0												
<b>GDWDx48</b> 48 (4x12)																
<b>GDWDx60</b> 60 (5x12)																
<b>GDWDx72</b> 72 (6x12)																
<b>GDWEx84</b> 84 (7x12)	6888	2100	1921.3	871.5	∅ 250 ± 15	0.10	2.5	–	0.66	16.8	3.0/4.3	8000	50	–	252	336
<b>GDWEx96</b> 96 (8x12)	13448	4100	3751.1	1701.5												
<b>GDWFx08</b> 108 (9x12)	6888	2100	2638.9	1197.0	∅ 250 ± 15	0.10	2.5	–	0.80	20.2	3.0/7.5	8000	50	–	303	404
<b>GDWFx20</b> 120 (10x12)	13448	4100	5152.2	2337.0												
<b>GDWFx32</b> 132 (11x12)																
<b>GDWFx44</b> 144 (12x12)																
<b>GDWMx16</b> 216 (18x12)	6888	2100	2824.1	1281.0	∅ 250 ± 15	0.10	2.5	–	0.81	20.5	2.7	8000	50	–	308	410
<b>GDWix92</b> 192 (8x24)	6888	2100	–	–	∅ 250 ± 15	0.14	3.5	–	0.81	20.5	3.0/6.0	8000	50	–	308	410
<b>GDWJx88</b> 288 (12x24)	6888	2100	–	–	∅ 250 ± 15	0.14	3.5	–	0.98	25.0	3.0/10.5	8000	50	–	375	500
<b>GDWLx32</b> 432 (18x24)	6888	2100	–	–	∅ 250 ± 15	0.14	3.5	–	1.00	25.5	2.7/3.7	8000	50	–	383	510

Color Code: see chart page 16.23

Loose tubes: 1. Red, 2. Green, rest of tubes White

Blind elements: Clear



Optical characteristics see page 16.21.

\* jelly-filled, non-dripping and silicone-free



## Multi Loose Tube Cables

Aerial – Outdoor

De- scription	Part No.	No. of Fibers	Standard Lengths		Standard Unit Weight		Fiber Size μm	Nom. Buffer/ Tube OD		Strength Members	Nominal OD		Central Element mm	Pulling Tension N	Crush Re- sistance kN/m	Energy kJ/m	Bending Radii Cable (mm)	
			ft.	m	lbs.	kg		inch	mm		inch	mm					static	dyna- mic

**GALH** • Loose Tubes\*/PE Blind Elements are S-Z Stranded Around the Central Element • Water-Blocked • **A-DSF(L)2YT (Span = 50 m)**

Filled Construction • Black PE (HDPE) Jacket • Figure 8, Steel Messenger																		
-30/70°C			6888	2100	793.7	360.0	∅ 250 ± 15	0.059	1.5	Steel Messenger	0.380 0.790	9.8 20.0	1.7	4000	20	-	147	196

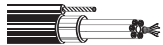


- GALHx04 4 (1x4)
- GALHx08 8 (2x4)
- GALHx12 12 (3x4)
- GALHx16 16 (4x4)
- GALHx20 20 (5x4)
- GALHx24 24 (6x4)

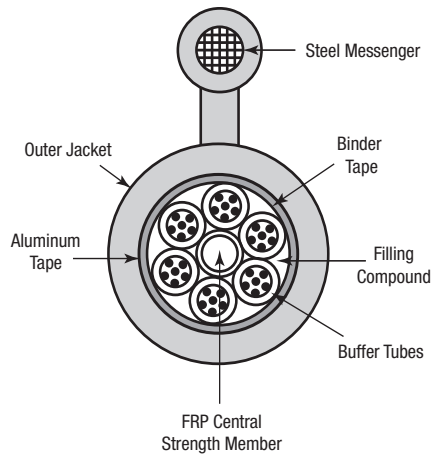
Color Code: see chart page 16.23  
Optional: higher pulling tension available upon request.

**GALD** • Loose Tubes\*/PE Blind Elements are S-Z Stranded Around the Central Element • Water-Blocked • **A-DSF(L)2YT (Span = 50 m)**

Filled Construction • Black PE (HDPE) Jacket • Figure 8, Steel Messenger																		
-30/70°C			6888	2100	1091.3	495.0	∅ 250 ± 15	0.098	2.5	Steel Messenger	0.500 0.914	12.8 23.0	2.7	4000	20	-	192	256



- GALDx12 12 (1x12)
- GALDx24 24 (2x12)
- GALDx36 36 (3x12)
- GALDx48 48 (4x12)
- GALDx60 60 (5x12)
- GALDx72 72 (6x12)



Color Code: see chart page 16.23  
Optional: higher pulling tension available upon request.

Optical characteristics see page 16.21.

## Multi Loose Tube Cables

Aerial – Outdoor, All Dielectric

De- scription	Part No.	No. of Fibers	Standard Lengths		Standard Unit Weight		Fiber Size µm	Nom. Buffer/ Tube OD		Strength Members	Nominal OD		Central Element mm	Pulling Tension N	Crush Re- sistance kN/m	Energy kJ/m	Bending Radii Cable (mm)	
			ft.	m	lbs.	kg		inch	mm		inch	mm					static	dyna- mic

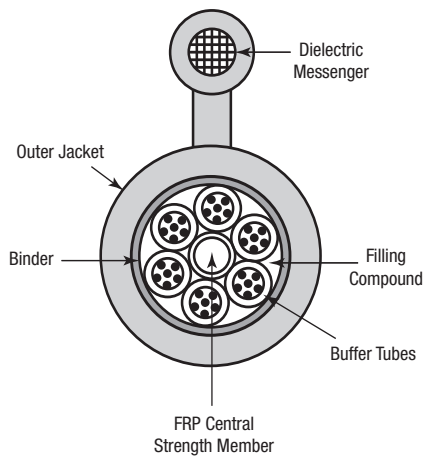
**GAAD • Loose Tubes\*/PE Blind Elements are S-Z Stranded Around the Central Element • Water-Blocked • A-DF(ZN)2YT (Span = 50 m)**

**Filled Construction • Black PE (HDPE) Jacket • Figure 8, Dielectric Messenger**

-30/70°C	6888	2100	910.5	413.0	∅ 250 ± 15	0.098	2.5	FRP Rod Messenger	0.50 0.95	12.7 24.0	2.7	4000	20	-	192	256
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- GAADx12 12 (1x12)
- GAADx24 24 (2x12)
- GAADx36 36 (3x12)
- GAADx48 48 (4x12)
- GAADx60 60 (5x12)
- GAADx72 72 (6x12)



Color Code: see chart page 16.23  
Optional: higher pulling tension available upon request.

Optical characteristics see page 16.21.

# Multi Loose Tube Cables

Universal – Indoor/Outdoor

De- scription	Part No.	No. of Fibers	Standard Lengths		Standard Unit Weight		Fiber Size µm	Nom. Buffer/ Tube OD		Strength Members	Nominal OD		Central Element mm	Pulling Tension N	Crush Re- sistance kN/m	Energy kJ/m	Bending Radii Cable (mm)	
			ft.	m	lbs.	kg		inch	mm		inch	mm					static	dyna- mic

**GCA** • Loose Tubes\*/PE Blind Elements are S-Z Stranded Around the Central Element • Water-Blocked • **A/I-DQ(ZN)H**

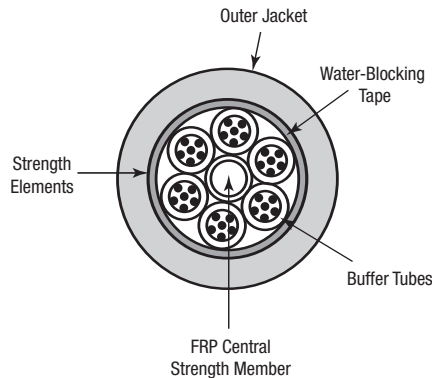
**Dry Construction • Black LSZH Jacket**

-30/70°C EN 50266-2-2  
EN 50267-2-2  
EN 50628-2



<b>GCA</b> Gx04	4 (1x4)	6888	2100	439.8	199.5	∅ 250 ± 15	0.07	1.9	Water-blocking Aramid Yarn	0.41	10.3	2.0	3000	20	–	155	206
<b>GCA</b> Gx06	6 (1x6)	13448	4100	858.7	389.5												
<b>GCA</b> Gx08	8 (2x4)																
<b>GCA</b> Gx12	12 (2x6)																
<b>GCA</b> Gx18	18 (3x6)																
<b>GCA</b> Gx24	24 (4x6)																
<b>GCA</b> Gx30	30 (5x6)																
<b>GCA</b> Gx36	36 (6x6)																
<b>GCA</b> Dx24	24 (2x12)	6888	2100	588.0	266.7	∅ 250 ± 15	0.10	2.5	Water-blocking Aramid Yarn	0.48	12.2	2.7	3500	20	–	183	244
<b>GCA</b> Dx36	36 (3x12)	13448	4100	1147.9	520.7												
<b>GCA</b> Dx48	48 (4x12)																
<b>GCA</b> Dx60	60 (5x12)																
<b>GCA</b> Dx72	72 (6x12)																
<b>GCA</b> Ex84	84 (7x12)	6888	2100	736.1	333.9	∅ 250 ± 15	0.10	2.5	Water-blocking Aramid Yarn	0.54	13.8	3.0/4.3	4000	20	–	207	276
<b>GCA</b> Ex96	96 (8x12)	13448	4100	1437.2	651.9												
<b>GCA</b> Fx08	108 (9x12)	6888	2100	1074.1	487.2	∅ 250 ± 15	0.10	2.5	Water-blocking Aramid Yarn	0.67	17.0	3.0/7.5	4000	20	–	255	340
<b>GCA</b> Fx20	120 (10x12)	13448	4100	2097.0	951.2												
<b>GCA</b> Fx32	132 (11x12)																
<b>GCA</b> Fx44	144 (12x12)																
<b>GCA</b> Mx16	216 (18x12)	6888	2100	1250.0	567.0	∅ 250 ± 15	0.10	2.5	Water-blocking Aramid Yarn	0.72	18.2	2.7	4000	20	–	273	364
		13448	4100	2440.5	1107.0												
<b>GCA</b> Ix92	192 (8x24)	6888	2100	1273.2	577.5	∅ 250 ± 15	0.14	3.5	Water-blocking Aramid Yarn	0.71	18.0	3.0/6.0	4000	20	–	270	360
		13448	4100	2485.7	1127.5												
<b>GCA</b> Jx88	288 (12x24)	6888	2100	1921.3	871.5	∅ 250 ± 15	0.14	3.5	Water-blocking Aramid Yarn	0.88	22.4	3.0/10.5	4000	20	–	336	448
<b>GCA</b> Lx32	432 (18x24)	6888	2100	1944.5	882.0	∅ 250 ± 15	0.14	3.5	Water-blocking Aramid Yarn	0.91	23.2	2.7/3.7	4000	20	–	348	464

Color Code: see chart page 16.23  
Loose tubes: 1. Red, 2. Green, rest of tubes White  
Blind elements: Clear



Optical characteristics see page 16.21.  
\* jelly-filled, non-dripping and silicone-free

## Multi Loose Tube Cables

Universal – Indoor/Outdoor

De- scription	Part No.	No. of Fibers	Standard Lengths		Standard Unit Weight		Fiber Size µm	Nom. Buffer/ Tube OD		Strength Members	Nominal OD		Central Element mm	Pulling Tension N	Crush Re- sistance kN/m	Energy kJ/m	Bending Radii Cable (mm)	
			ft.	m	lbs.	kg		inch	mm		inch	mm					static	dyna- mic

**GEA** • Loose Tubes\*/PE Blind Elements are S-Z stranded Around the Central Element • Water-Blocked • **A/I-DF(ZN)H**

**Filled Construction • Black LSZH Jacket**

-30/70°C EN 50266-2-2  
EN 50267-2-2  
EN 50628-2

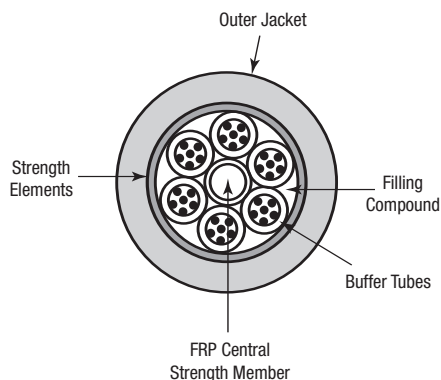


GEAGx04	4 (1x4)	6888	2100	449.1	203.7	∅ 250 ± 15	0.07	1.9	Water-blocking Aramid Yarn	0.39	10.0	2.0	3000	20	–	150	200
GEAGx06	6 (1x6)	13448	4100	876.8	397.7												
GEAGx08	8 (2x4)																
GEAGx12	12 (2x6)																
GEAGx18	18 (3x6)																
GEAGx24	24 (4x6)																
GEAGx30	30 (5x6)																
GEAGx36	36 (6x6)																
GEADx24	24 (2x12)	6888	2100	620.4	281.4	∅ 250 ± 15	0.10	2.5	Water-blocking Aramid Yarn	0.47	12.0	2.7	3500	20	–	180	240
GEADx36	36 (3x12)	13448	4100	1211.2	549.4												
GEADx48	48 (4x12)																
GEADx60	60 (5x12)																
GEADx72	72 (6x12)																
GEAEx84	84 (7x12)	6888	2100	787.0	357.0	∅ 250 ± 15	0.10	2.5	Water-blocking Aramid Yarn	0.54	13.6	3.0/4.3	4000	20	–	204	272
GEAEx96	96 (8x12)	13448	4100	1536.6	697.0												
GEAFx08	108 (9x12)	6888	2100	1157.4	525.0	∅ 250 ± 15	0.10	2.5	Water-blocking Aramid Yarn	0.66	16.8	3.0/7.5	4000	20	–	252	336
GEAFx20	120 (10x12)	13448	4100	2259.7	1025.0												
GEAFx32	132 (11x12)																
GEAFx44	144 (12x12)																
GEAMx16	216 (18x12)	6888 13448	2100 4100	1342.6 2621.3	609.0 1189.0	∅ 250 ± 15	0.10	2.5	Water-blocking Aramid Yarn	0.69	17.5	2.7	4000	20	–	263	350
GEAlx92	192 (8x24)	6888 13448	2100 4100	1250.0 2440.5	567.0 1107.0	∅ 250 ± 15	0.14	3.5	Water-blocking Aramid Yarn	0.69	17.6	3.0/6.0	4000	20	–	264	352
GEAlx88	288 (12x24)	6888	2100	2013.9	913.5	∅ 250 ± 15	0.14	3.5	Water-blocking Aramid Yarn	0.87	22.1	3.0/10.5	4000	20	–	332	442
GEALx32	432 (18x24)	6888	2100	2129.6	966.0	∅ 250 ± 15	0.14	3.5	Water-blocking Aramid Yarn	0.89	22.5	2.7/3.7	4000	20	–	338	450

Color Code: see chart page 16.23

Loose tubes: 1. Red, 2. Green, rest of tubes White

Blind elements: Clear



Optical characteristics see page 16.21.

\* jelly-filled, non-dripping and silicone-free

## Multi Loose Tube Cables

Universal – Indoor/Outdoor, Improved Rodent Protection

De- scription	Part No.	No. of Fibers	Standard Lengths		Standard Unit Weight		Fiber Size µm	Nom. Buffer/ Tube OD		Strength Members	Nominal OD		Central Element mm	Pulling Tension N	Crush Re- sistance kN/m	Energy kJ/m	Bending Radii Cable (mm)	
			ft.	m	lbs.	kg		inch	mm		inch	mm					static	dyna- mic

**GCR** • Loose Tubes\*/PE Blind Elements are S-Z Stranded Around the Central Element • Water-Blocked • **A/I-DQ(ZN)BH**

### Dry Construction • Black LSZH Jacket

-30/70°C EN 50266-2-2  
EN 50267-2-2  
EN 50268-2

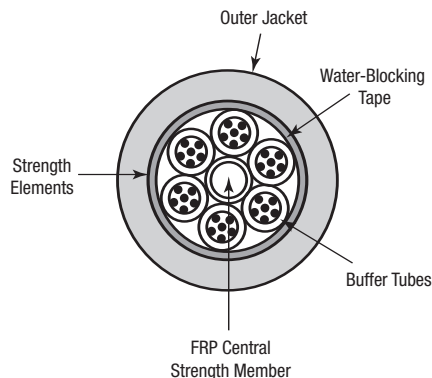


<b>GCRGx04</b>	4 (1x4)	6888	2100	597.2	270.9	Ø 250 ± 15	0.07	1.9	Water-blocking Glass Yarn	0.46	11.8	2.0	3000	20	-	177	236	
<b>GCRGx06</b>	6 (1x6)	13448	4100	1166.0	528.9													
<b>GCRGx08</b>	8 (2x4)																	
<b>GCRGx12</b>	12 (2x6)																	
<b>GCRGx18</b>	18 (3x6)																	
<b>GCRGx24</b>	24 (4x6)																	
<b>GCRGx30</b>	30 (5x6)																	
<b>GCRGx36</b>	36 (6x6)																	
<b>GCRDx24</b>	24 (2x12)	6888	2100	750.0	340.2	Ø 250 ± 15	0.10	2.5	Water-blocking Glass Yarn	0.54	13.7	2.7	3500	20	-	206	274	
<b>GCRDx36</b>	36 (3x12)	13448	4100	1464.3	664.2													
<b>GCRDx48</b>	48 (4x12)																	
<b>GCRDx60</b>	60 (5x12)																	
<b>GCRDx72</b>	72 (6x12)																	
<b>GCREx84</b>	84 (7x12)	6888	2100	930.6	422.1	Ø 250 ± 15	0.10	2.5	Water-blocking Glass Yarn	0.60	15.3	3.0/4.3	4000	20	-	230	306	
<b>GCREx96</b>	96 (8x12)	13448	4100	1816.8	824.1													
<b>GCRFx08</b>	108 (9x12)	6888	2100	1277.8	579.6	Ø 250 ± 15	0.10	2.5	Water-blocking Glass Yarn	0.73	18.5	3.0/7.5	4000	20	-	278	370	
<b>GCRFx20</b>	120 (10x12)	13448	4100	2494.7	1131.6													
<b>GCRFx32</b>	132 (11x12)																	
<b>GCRFx44</b>	144 (12x12)																	
<b>GCRMx16</b>	216 (18x12)	6888	2100	1481.5	672.0	Ø 250 ± 15	0.10	2.5	Water-blocking Glass Yarn	0.78	19.7	2.7	4000	20	-	296	394	
		13448	4100	2892.4	1312.0													
<b>GCRlx92</b>	192 (8x24)	6888	2100	1481.5	672.0	Ø 250 ± 15	0.14	3.5	Water-blocking Glass Yarn	0.77	19.5	3.0/6.0	4000	20	-	293	390	
		13448	4100	2892.4	1312.0													
<b>GCRJx88</b>	288 (12x24)	6888	2100	2129.6	966.0	Ø 250 ± 15	0.14	3.5	Water-blocking Glass Yarn	0.94	23.9	3.0/10.5	4000	20	-	359	478	
<b>GCRlx32</b>	432 (18x24)	6888	2100	2129.6	966.0	Ø 250 ± 15	0.14	3.5	Water-blocking Glass Yarn	0.97	24.7	2.7/3.7	4000	20	-	371	494	

Color Code: see chart page 16.23

Loose tubes: 1. Red, 2. Green, rest of tubes White

Blind elements: Clear



Optical characteristics see page 16.21.

\* jelly-filled, non-dripping and silicone-free

## Multi Loose Tube Cables

Universal – Indoor/Outdoor, Improved Rodent Protection

De- scription	Part No.	No. of Fibers	Standard Lengths		Standard Unit Weight		Fiber Size μm	Nom. Buffer/ Tube OD		Strength Members	Nominal OD		Central Element mm	Pulling Tension N	Crush Re- sistance kN/m	Energy kJ/m	Bending Radii Cable (mm)	
			ft.	m	lbs.	kg		inch	mm		inch	mm					static	dyna- mic

**GER** • Loose Tubes\*/PE Blind Elements are S-Z Stranded Around the Central Element • Water-Blocked • **A/I-DF(ZN)BH**

**Filled Construction • Black LSZH Jacket**

-30/70°C EN 50266-2-2  
EN 50267-2-2  
EN 50268-2

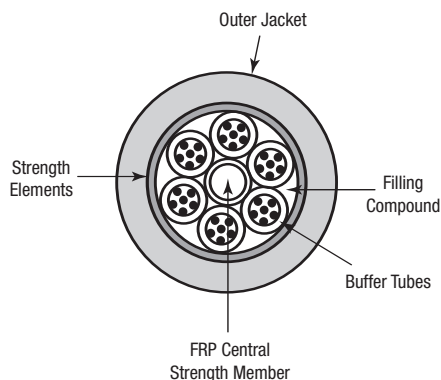


<b>GERGx04</b>	4 (1x4)	6888	2100	601.9	273.0	∅ 250 ± 15	0.07	1.9	Water-blocking Glass Yarn	0.45	11.5	2.0	3000	20	-	173	230
<b>GERGx06</b>	6 (1x6)	13448	4100	1175.1	533.0												
<b>GERGx08</b>	8 (2x4)																
<b>GERGx12</b>	12 (2x6)																
<b>GERGx18</b>	18 (3x6)																
<b>GERGx24</b>	24 (4x6)																
<b>GERGx30</b>	30 (5x6)																
<b>GERGx36</b>	36 (6x6)																
<b>GERDx24</b>	24 (2x12)	6888	2100	777.8	352.8	∅ 250 ± 15	0.10	2.5	Water-blocking Glass Yarn	0.53	13.4	2.7	3500	20	-	201	268
<b>GERDx36</b>	36 (3x12)	13448	4100	1518.5	688.8												
<b>GERDx48</b>	48 (4x12)																
<b>GERDx60</b>	60 (5x12)																
<b>GERDx72</b>	72 (6x12)																
<b>GEREx84</b>	84 (7x12)	6888	2100	967.6	438.9	∅ 250 ± 15	0.10	2.5	Water-blocking Glass Yarn	0.59	15.0	3.0/4.3	4000	20	-	225	300
<b>GEREx96</b>	96 (8x12)	13448	4100	1889.1	856.9												
<b>GERFx08</b>	108 (9x12)	6888	2100	1333.3	604.8	∅ 250 ± 15	0.10	2.5	Water-blocking Glass Yarn	0.72	18.2	3.0/7.5	4000	20	-	273	364
<b>GERFx20</b>	120 (10x12)	13448	4100	2603.2	1180.8												
<b>GERFx32</b>	132 (11x12)																
<b>GERFx44</b>	144 (12x12)																
<b>GERMx16</b>	216 (18x12)	6888	2100	1527.8	693.0	∅ 250 ± 15	0.10	2.5	Water-blocking Glass Yarn	0.75	19.0	2.7	4000	20	-	285	380
		13448	4100	2982.8	1353.0												
<b>GERIx92</b>	192 (8x24)	6888	2100	1435.2	651.0	∅ 250 ± 15	0.14	3.5	Water-blocking Glass Yarn	0.75	19.0	3.0/6.0	4000	20	-	285	380
		13448	4100	2802.0	1271.0												
<b>GERJx88</b>	288 (12x24)	6888	2100	2222.2	1008.0	∅ 250 ± 15	0.14	3.5	Water-blocking Glass Yarn	0.93	23.5	3.0/10.5	4000	20	-	353	470
<b>GERLx32</b>	432 (18x24)	6888	2100	2314.8	1050.0	∅ 250 ± 15	0.14	3.5	Water-blocking Glass Yarn	0.94	24.0	2.7/3.7	4000	20	-	360	480

Color Code: see chart page 16.23

Loose tubes: 1. Red, 2. Green, rest of tubes White

Blind elements: Clear



Optical characteristics see page 16.21.

\* jelly-filled, non-dripping and silicone-free

### Multi Loose Tube Cables

Universal – Indoor/Outdoor, Full Rodent Protection, Corrugated Steel Tape Armor (CST)

De- scription	Part No.	No. of Fibers	Standard Lengths		Standard Unit Weight		Fiber Size µm	Nom. Buffer/ Tube OD		Strength Members	Nominal OD		Central Element mm	Pulling Tension N	Crush Re- sistance kN/m	Energy kJ/m	Bending Radii Cable (mm)	
			ft.	m	lbs.	kg		inch	mm		inch	mm					static	dyna- mic

**GCD** • Loose Tubes\*/PE Blind Elements are S-Z Stranded Around the Central Element • Water-Blocked • CST • **A/I-DQ(ZN)H(SR)H**

**Dry Construction • Double Black LSZH Jacket**

-30/70°C EN 50266-2-2  
EN 50267-2-2  
EN 50268-2

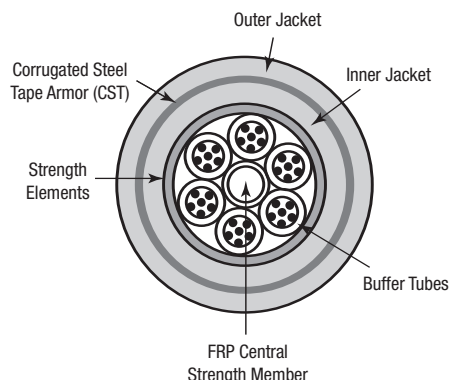


<b>GCDGx04</b>	4 (1x4)	6888	2100	1041.7	472.5	∅ 250 ± 15	0.07	1.9	Water-blocking Aramid Yarn	0.52	13.2	2.0	3000	50	-	198	264
<b>GCDGx06</b>	6 (1x6)	13448	4100	2033.7	922.5												
<b>GCDGx08</b>	8 (2x4)																
<b>GCDGx12</b>	12 (2x6)																
<b>GCDGx18</b>	18 (3x6)																
<b>GCDGx24</b>	24 (4x6)																
<b>GCDGx30</b>	30 (5x6)																
<b>GCDGx36</b>	36 (6x6)																
<b>GCDx24</b>	24 (2x12)	6888	2100	1296.3	588.0	∅ 250 ± 15	0.10	2.5	Water-blocking Aramid Yarn	0.60	15.2	2.7	3500	50	-	228	304
<b>GCDx36</b>	36 (3x12)																
<b>GCDx48</b>	48 (4x12)																
<b>GCDx60</b>	60 (5x12)																
<b>GCDx72</b>	72 (6x12)																
<b>GCDEx84</b>	84 (7x12)	6888	2100	1574.1	714.0	∅ 250 ± 15	0.10	2.5	Water-blocking Aramid Yarn	0.69	17.4	3.0/4.3	4000	50	-	261	348
<b>GCDEx96</b>	96 (8x12)																
<b>GCDFx08</b>	108 (9x12)	6888	2100	2055.6	932.4	∅ 250 ± 15	0.10	2.5	Water-blocking Aramid Yarn	0.81	20.5	3.0/7.5	4000	50	-	308	410
<b>GCDFx20</b>	120 (10x12)																
<b>GCDFx32</b>	132 (11x12)																
<b>GCDFx44</b>	144 (12x12)																
<b>GCDMx16</b>	216 (18x12)	6888	2100	2268.5	1029.0	∅ 250 ± 15	0.10	2.5	Water-blocking Aramid Yarn	0.85	21.5	2.7	4000	50	-	323	430
<b>GCDIx92</b>	192 (8x24)	6888	2100	-	-	∅ 250 ± 15	0.14	3.5	Water-blocking Aramid Yarn	0.85	21.5	3.0/6.0	4000	50	-	323	430
<b>GCDJx88</b>	288 (12x24)	6888	2100	-	-	∅ 250 ± 15	0.14	3.5	Water-blocking Aramid Yarn	1.02	26.0	3.0/10.5	4000	50	-	390	520
<b>GCDLx32</b>	432 (18x24)	6888	2100	-	-	∅ 250 ± 15	0.14	3.5	Water-blocking Aramid Yarn	1.04	26.5	2.7/3.7	4000	50	-	398	530

Color Code: see chart page 16.23

Loose tubes: 1. Red, 2. Green, rest of tubes White

Blind elements: Clear



Optical characteristics see page 16.21.  
\* jelly-filled, non-dripping and silicone-free

## Multi Loose Tube Cables

Universal – Indoor/Outdoor, Full Rodent Protection, Corrugated Steel Tape Armor (CST)

De- scription	Part No.	No. of Fibers	Standard Lengths		Standard Unit Weight		Fiber Size µm	Nom. Buffer/ Tube OD		Strength Members	Nominal OD		Central Element mm	Pulling Tension N	Crush Re- sistance kN/m	Energy kJ/m	Bending Radii Cable (mm)	
			ft.	m	lbs.	kg		inch	mm		inch	mm					static	dyna- mic

**GED** • Loose Tubes\*/PE Blind Elements are S-Z Stranded Around the Central Element • Water-Blocked • CST • **A/I-DF(ZN)H(SR)H**

**Filled Construction • Double Black LSZH Jacket**

-30/70°C EN 50266-2-2  
EN 50267-2-2  
EN 50268-2

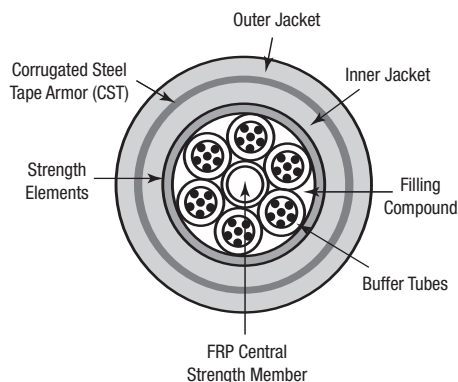


<b>GEDGx04</b>	4 (1x4)	6888	2100	1050.9	476.7	Ø 250 ± 15	0.07	1.9	Water-blocking Aramid Yarn	0.51	13.0	2.0	3000	50	-	195	260
<b>GEDGx06</b>	6 (1x6)	13448	4100	2051.8	930.7												
<b>GEDGx08</b>	8 (2x4)																
<b>GEDGx12</b>	12 (2x6)																
<b>GEDGx18</b>	18 (3x6)																
<b>GEDGx24</b>	24 (4x6)																
<b>GEDGx30</b>	30 (5x6)																
<b>GEDGx36</b>	36 (6x6)																
<b>GEDDx24</b>	24 (2x12)	6888	2100	1324.1	600.6	Ø 250 ± 15	0.10	2.5	Water-blocking Aramid Yarn	0.59	15.0	2.7	3500	50	-	225	300
<b>GEDDx36</b>	36 (3x12)																
<b>GEDDx48</b>	48 (4x12)																
<b>GEDDx60</b>	60 (5x12)																
<b>GEDDx72</b>	72 (6x12)																
<b>GEDEx84</b>	84 (7x12)	6888	2100	1606.5	728.7	Ø 250 ± 15	0.10	2.5	Water-blocking Aramid Yarn	0.67	17.1	3.0/4.3	4000	50	-	257	342
<b>GEDEx96</b>	96 (8x12)																
<b>GEDFx08</b>	108 (9x12)	6888	2100	2101.9	953.4	Ø 250 ± 15	0.10	2.5	Water-blocking Aramid Yarn	0.81	20.5	3.0/7.5	4000	50	-	308	410
<b>GEDFx20</b>	120 (10x12)																
<b>GEDFx32</b>	132 (11x12)																
<b>GEDFx44</b>	144 (12x12)																
<b>GEDMx16</b>	216 (18x12)	6888	2100	2361.1	1071.0	Ø 250 ± 15	0.10	2.5	Water-blocking Aramid Yarn	0.83	21.0	2.7	4000	50	-	315	420
<b>GEDIx92</b>	192 (8x24)	6888	2100	-	-	Ø 250 ± 15	0.14	3.5	Water-blocking Aramid Yarn	0.83	21.0	3.0/6.0	4000	50	-	315	420
<b>GEDJx88</b>	288 (12x24)	6888	2100	-	-	Ø 250 ± 15	0.14	3.5	Water-blocking Aramid Yarn	1.00	25.5	3.0/10.5	4000	50	-	383	510
<b>GEDLx32</b>	432 (18x24)	6888	2100	-	-	Ø 250 ± 15	0.14	3.5	Water-blocking Aramid Yarn	1.02	26.0	2.7/3.7	4000	50	-	390	520

Color Code: see chart page 16.23

Loose tubes: 1. Red, 2. Green, rest of tubes White

Blind elements: Clear



Optical characteristics see page 16.21.

\* jelly-filled, non-dripping and silicone-free



## Multi Loose Tube Cables

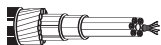
Universal – Indoor/Outdoor, Full Rodent Protection, Galvanised Steel Wire Armor (SWA)

De- scription	Part No.	No. of Fibers	Standard Lengths		Standard Unit Weight		Fiber Size $\mu\text{m}$	Nom. Buffer/ Tube OD		Strength Members	Nominal OD		Central Element mm	Pulling Tension N	Crush Re- sistance kN/m	Energy kJ/m	Bending Radii Cable (mm)	
			ft.	m	lbs.	kg		inch	mm		inch	mm					static	dyna- mic

**GCW** • Loose Tubes\*/PE Blind Elements are S-Z Stranded Around the Central Element • Water-Blocked • SWA • **A/I-DQHBH (R1.0vzk)**

**Dry Construction • Double Black LSZH Jacket**

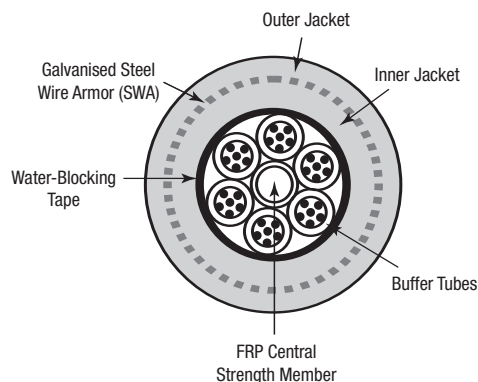
-30/70°C EN 50266-2-2  
EN 50267-2-2  
EN 50268-2



<b>GCWGx04</b> 4 (1x4)	6888	2100	1574.1	714.0	$\emptyset 250 \pm 15$	0.07	1.9	–	0.54	13.6	2.0	8000	50	–	204	272
<b>GCWGx06</b> 6 (1x6)	13448	4100	3073.2	1394.0												
<b>GCWGx08</b> 8 (2x4)																
<b>GCWGx12</b> 12 (2x6)																
<b>GCWGx18</b> 18 (3x6)																
<b>GCWGx24</b> 24 (4x6)																
<b>GCWGx30</b> 30 (5x6)																
<b>GCWGx36</b> 36 (6x6)																
<b>GCWDx24</b> 24 (2x12)	6888	2100	1912.0	867.3	$\emptyset 250 \pm 15$	0.10	2.5	–	0.61	15.5	2.7	8000	50	–	233	310
<b>GCWDx36</b> 36 (3x12)	13448	4100	3733.0	1693.3												
<b>GCWDx48</b> 48 (4x12)																
<b>GCWDx60</b> 60 (5x12)																
<b>GCWDx72</b> 72 (6x12)																
<b>GCWEx84</b> 84 (7x12)	6888	2100	2152.8	976.5	$\emptyset 250 \pm 15$	0.10	2.5	–	0.67	17.0	3.0/4.3	8000	50	–	255	340
<b>GCWEx96</b> 96 (8x12)	13448	4100	4203.1	1906.5												
<b>GCWEx108</b> 108 (9x12)																
<b>GCWFx20</b> 120 (10x12)	13448	4100	5694.5	2583.0												
<b>GCWFx32</b> 132 (11x12)																
<b>GCWFx44</b> 144 (12x12)																
<b>GCWMx16</b> 216 (18x12)	6888	2100	3101.9	1407.0	$\emptyset 250 \pm 15$	0.10	2.5	–	0.83	21.0	2.7	8000	50	–	315	420
<b>GCWix92</b> 192 (8x24)	6888	2100	–	–	$\emptyset 250 \pm 15$	0.14	3.5	–	0.83	21.0	3.0/6.0	8000	50	–	315	420
<b>GCWJx88</b> 288 (12x24)	6888	2100	–	–	$\emptyset 250 \pm 15$	0.14	3.5	–	1.00	25.5	3.0/10.5	8000	50	–	383	510
<b>GCWLx32</b> 432 (18x24)	6888	2100	–	–	$\emptyset 250 \pm 15$	0.14	3.5	–	1.02	26.0	2.7/3.7	8000	50	–	390	520

Color Code: see chart page 16.23

Loose tubes: 1. Red, 2. Green, rest of tubes White  
Blind elements: Clear



Optical characteristics see page 16.21.  
\* jelly-filled, non-dripping and silicone-free

## Multi Loose Tube Cables

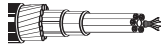
Universal – Indoor/Outdoor, Full Rodent Protection, Galvanised Steel Wire Armor (SWA)

De- scription	Part No.	No. of Fibers	Standard Lengths		Standard Unit Weight		Fiber Size µm	Nom. Buffer/ Tube OD		Strength Members	Nominal OD		Central Element mm	Pulling Tension N	Crush Re- sistance kN/m	Energy kJ/m	Bending Radii Cable (mm)	
			ft.	m	lbs.	kg		inch	mm		inch	mm					static	dyna- mic

**GEW** • Loose Tubes\*/PE Blind Elements are S-Z Stranded Around the Central Element • Water-Blocked • SWA • **A/I-DFHBH (R1.0vzk)**

**Filled Construction • Double Black LSZH Jacket**

-30/70°C EN 50266-2-2  
EN 50267-2-2  
EN 50268-2

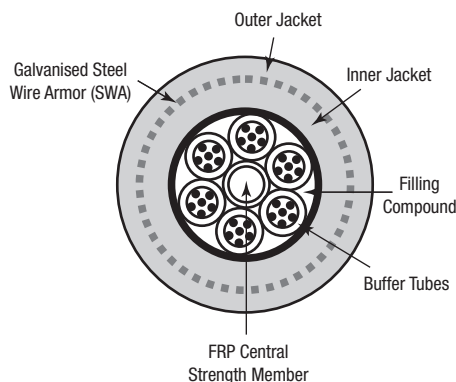


GEWx04	4 (1x4)	6888	2100	1574.1	714.0	Ø 250 ± 15	0.07	1.9	–	0.53	13.5	2.0	8000	50	–	203	270
GEWx06	6 (1x6)	13448	4100	3073.2	1394.0												
GEWx08	8 (2x4)																
GEWx12	12 (2x6)																
GEWx18	18 (3x6)																
GEWx24	24 (4x6)																
GEWx30	30 (5x6)																
GEWx36	36 (6x6)																
GEWd24	24 (2x12)	6888	2100	1944.5	882.0	Ø 250 ± 15	0.10	2.5	–	0.61	15.5	2.7	8000	50	–	233	310
GEWd36	36 (3x12)	13448	4100	3796.3	1722.0												
GEWd48	48 (4x12)																
GEWd60	60 (5x12)																
GEWd72	72 (6x12)																
GEWex84	84 (7x12)	6888	2100	2199.1	997.5	Ø 250 ± 15	0.10	2.5	–	0.66	16.8	3.0/4.3	8000	50	–	252	336
GEWex96	96 (8x12)	13448	4100	4293.5	1947.5												
GEWfx08	108 (9x12)	6888	2100	2963.0	1344.0	Ø 250 ± 15	0.10	2.5	–	0.80	20.2	3.0/7.5	8000	50	–	303	404
GEWfx20	120 (10x12)	13448	4100	5784.9	2624.0												
GEWfx32	132 (11x12)																
GEWfx44	144 (12x12)																
GEWmx16	216 (18x12)	6888	2100	3101.9	1407.0	Ø 250 ± 15	0.10	2.5	–	0.81	20.6	2.7	8000	50	–	309	412
GEWix92	192 (8x24)	6888	2100	–	–	Ø 250 ± 15	0.14	3.5	–	0.81	20.5	3.0/6.0	8000	50	–	308	410
GEWJx88	288 (12x24)	6888	2100	–	–	Ø 250 ± 15	0.14	3.5	–	0.98	25.0	3.0/10.5	8000	50	–	375	500
GEWLx32	432 (18x24)	6888	2100	–	–	Ø 250 ± 15	0.14	3.5	–	1.00	25.5	2.7/3.7	8000	50	–	383	510

Color Code: see chart page 16.23

Loose tubes: 1. Red, 2. Green, rest of tubes White

Blind elements: Clear



Optical characteristics see page 16.21.

\* jelly-filled, non-dripping and silicone-free

## Interconnect Cables – Simplex and Duplex

### Tight Buffer – Plenum Rated

#### Applications

- Patch panels
- Workstation equipment connections
- Horizontal distribution in open office environments

#### Product Description

Interconnect cables are designed for low fiber-count premises environments. They are small and very flexible, making them ideal for confined spaces. Their aesthetic appearance makes these cables suitable for use in open office environments. Available in 1 or 2 fibers. One sub-unit is marked to permit easy identification of transmit and receive fibers. Length markings to facilitate installation.

<b>Jacket Material</b>	PVC
<b>Tight Buffer</b>	PVC
<b>Strength Member</b>	Aramid Yarn
<b>Color Code (Tight Buffer)</b>	Per EIA/TIA 598-A, see page 16.24
<b>Jacket Color</b>	
Single-mode	Yellow
62.5/125 $\mu$ m	Orange
50/125 $\mu$ m/1 Gbe	Orange
50/125 $\mu$ m/10 Gbe	Aqua

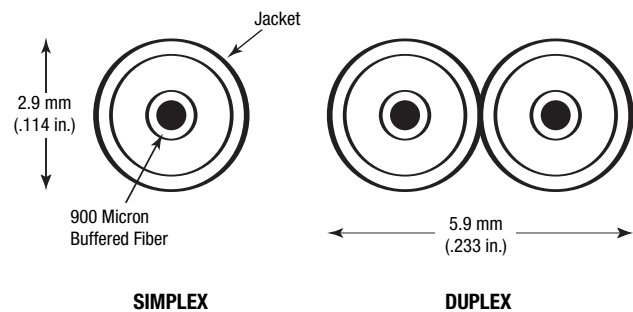
#### Ratings

<b>Plenum</b>	
UL Type	OFNP
cUL Type	OFN FT6
Flame resistance	NFPA 262

#### Specifications

<b>Temperature Range</b>	
Storage	-40 to +70°C
Operating	-20 to +70°C
<b>Crush Resistance (EIA-455-41)</b>	200 N/cm
<b>Impact Resistance (EIA-455-25)</b>	20 Impacts @ 1.0 N-m
<b>Cyclic Flexing (EIA-455-104)</b>	2000 cycles, min.
<b>Min. Bend Radius</b>	
Installation	15xOD
Long term	10xOD
<b>Optical Specifications</b>	see page 16.24

#### Fiber Bundle Detail



No. of Fibers	Belden Part Number				Outside Diameter		Weight		Max. Install Load	
	62.5/125 $\mu$ m Std./1 Gbe	50.0/125 $\mu$ m Std./1 Gbe	50.0/125 $\mu$ m 10 Gbe - 300M	Single-Mode Enhanced	inch	mm	lbs./1000'	kg/km	lbs.	N

#### Interconnect Cable Series

Plenum (NEC/CEC OFNP/OFN FT6)										
1	M98086	M9A003	M9C003	M9W003	0.114	2.9	6	9	90	400
2	M96919	M9A004	M9C004	M9W004	0.11 x 0.23	2.9 x 5.9	13	19	180	801

## Distribution Cables

### Tight Buffer – Indoor Plenum Rated

#### Applications

- Low to high fiber count requirements
- In-building backbone
- Fiber-to-the-desk applications
- Computer room

#### Product Description

Flexible thermoplastic jacket provides excellent handling characteristics. Fibers and cable sub-units are color coded for easy identification. Length markings in meters for easy determination of cable length. Full dielectric construction, no grounding required. For Riser offering, MSHA approved cables are available.

<b>Jacket Material</b>	
Non-unitized Plenum	PVC
Unitized Plenum	PVDF
<b>Tight Buffer</b>	
Plenum	PVC
<b>Strength Member</b>	
	Aramid Yarn
<b>Color Code (Tight Buffer)</b>	
	Per EIA/TIA 598-A, see page 16.24
<b>Jacket Color</b>	
Single-mode	Yellow
62.5/125 $\mu\text{m}$	Orange (Green for LSZH only)
50/125 $\mu\text{m}$ /1 Gbe	Orange
50/125 $\mu\text{m}$ /10 Gbe	Aqua

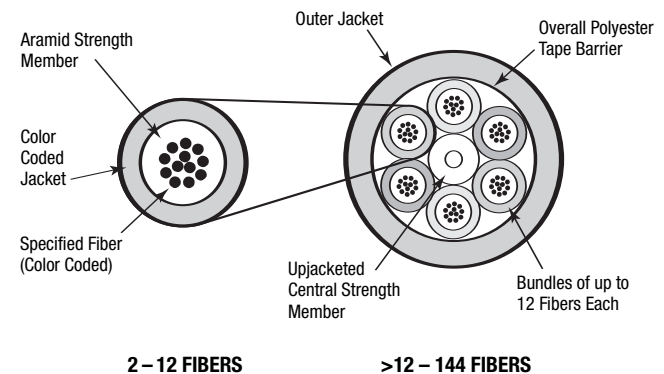
#### Ratings

<b>Plenum</b>	
UL Type	OFNP
cUL Type	OFN FT6
Flame resistance	NFPA 262

#### Specifications

<b>Temperature Range</b>	
Storage	-40 to +80°C
Operating	-20 to +70°C
<b>Crush Resistance (EIA-455-41)</b>	2000 N/cm
<b>Impact Resistance (EIA-455-25)</b>	2000 Impacts @ 1.6 N-m
<b>Cyclic Flexing (EIA-455-104)</b>	2000 cycles, min.
<b>Min. Bend Radius</b>	
Installation	15xOD
Long term	10xOD
<b>Optical Specifications</b>	see page 16.24

#### Fiber Bundle Detail



## Distribution Cables

Tight Buffer – Indoor Plenum Rated (*continued*)

No. of Fibers	Belden Part Number				Outside Diameter		Weight		Max. Install Load	
	62.5/125 µm Std./1 Gbe	50.0/125 µm Std./1 Gbe	50.0/125 µm 10 Gbe - 300M	Single-Mode Enhanced	inch	mm	lbs./1000'	kg/km	lbs.	N

### Distribution Cable Series

#### Plenum (NEC/CEC OFNP/OFN FT6)

2	M9B043	M9A043	M9C043	M9W043	0.184	4.67	14	21	180	801
4	M9B044	M9A044	M9C044	M9W044	0.174	4.42	13	19	195	867
6	M9B045	M9A045	M9C045	M9W045	0.190	4.83	16	24	270	1201
8	M9B046	M9A046	M9C046	M9W046	0.222	5.64	19	28	270	1201
12	M9B048	M9A048	M9C048	M9W048	0.225	5.72	22	33	300	1334
24	M9B611*	M9A611*	M9C611*	M9W611*	0.330	8.38	40	60	390	1735
24	M9B612	M9A612	M9C612	M9W612	0.493	12.52	89	132	1263	5618
36	M9B614	M9A614	M9C614	M9W614	0.594	15.09	134	199	1913	8509
48	M9B616	M9A616	M9C616	M9W616	0.599	15.21	131	195	1245	5538
72	M9B620	M9A620	M9C620	M9W620	0.754	19.15	197	293	2093	9310
96	M9B623	M9A623	M9C623	M9W623	0.904	22.96	268	399	2160	9608
144	M9B621	M9A621	M9C621	M9W621	1.047	26.59	365	543	3645	16213

#### Composite Plenum Cables

6xSM/ 6x62.5	M97174
6xSM/ 12x62.5	M97041
12xSM/ 12x62.5	M97219
6xSM/ 6x50	M97412
6xSM/ 12x50	M97411
12xSM/ 12x50	M96780

Construction for LSZH cables differs from the drawing. Alternative fiber counts are available.

\* Single jacket design.

## Breakout Style Cables

### Tight Buffer — Indoor Plenum Rated

#### Applications

- Low to medium fiber count requirements
- In-building backbone or horizontal deployment
- Office wiring
- Factory floor automation and harsh environment installations

#### Product Description

Full dielectric construction, no grounding required. Available with 2 to 36 fibers. Fiber subunits are color coded for easy identification. Length markings in meters for easy determination of cable length. For riser offering, MSHA approved cables are available.

<b>Outer Jacket Material</b>	
Riser & Plenum	PVC
Plenum	PVDF
<b>Sub-unit Jacket Material</b>	
Riser & Plenum	PVC
<b>Tight Buffer</b>	
Riser & Plenum	PVC
<b>Strength Member</b>	
	Aramid Yarn
<b>Color Code (Tight Buffer)</b>	
	Per EIA/TIA 598-A, see page 16.24
<b>Jacket Color</b>	
Single-mode	Yellow
62.5/125 $\mu$ m	Orange (Green for LSZH only)
50/125 $\mu$ m/1 Gbe	Orange
50/125 $\mu$ m/10 Gbe	Aqua

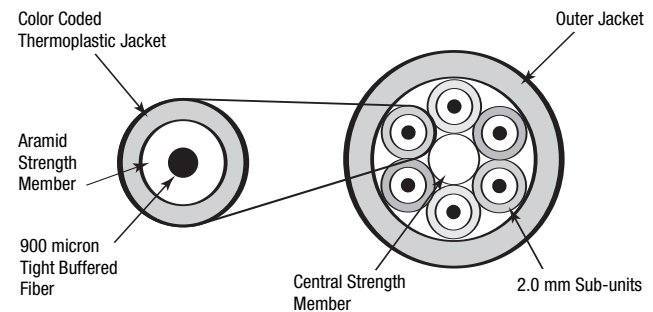
#### Ratings

<b>Plenum</b>	
UL Type	OFNP
cUL Type	OFN FT6
Flame resistance	NFPA 262

#### Specifications

<b>Temperature Range</b>	
Storage	-40 to +80°C
Operating	-20 to +70°C
<b>Crush Resistance (EIA-455-41)</b>	2000 N/cm
<b>Impact Resistance (EIA-455-25)</b>	2000 Impacts @ 1.6 N-m
<b>Cyclic Flexing (EIA-455-104)</b>	2000 cycles, min.
<b>Min. Bend Radius</b>	
Installation	15xOD
Long term	10xOD
<b>Optical Specifications</b>	see page 16.24

#### Fiber Bundle Detail



No. of Fibers	Belden Part Number				Outside Diameter		Weight		Max. Install Load	
	62.5/125 $\mu$ m Std./1 Gbe	50.0/125 $\mu$ m Std./1 Gbe	50.0/125 $\mu$ m 10 Gbe - 300M	Single-Mode Enhanced	inch	mm	lbs./1000'	kg/km	lbs.	N

#### Breakout Cable Series

Plenum (NEC/CEC OFNP/OFN FT6)										
2	M9B013	M9A013	M9C013	M9W013	0.230	5.84	20	30	180	801
4	M9B014	M9A014	M9C014	M9W014	0.263	6.68	30	45	345	1535
6	M9B015	M9A015	M9C015	M9W015	0.309	7.85	41	61	465	2068
8	M9B016	M9A016	M9C016	M9W016	0.336	8.53	55	82	600	2700
10	M9B017	M9A017	M9C017	M9W017	0.385	9.78	73	109	600	2700
12	M9B018	M9A018	M9C018	M9W018	0.391	9.93	65	97	600	2700
18	M9B019	M9A019	M9C019	M9W019	0.456	11.58	89	132	600	2700
24	M9B020	M9A020	M9C020	M9W020	0.544	13.82	117	174	600	2700
36	M9B082	M9A082	M9C082	M9W082	0.612	15.54	154	229	600	2700

2.5 mm Breakout Cables are also available.

## Industrial Armored Cables

### Tight Buffer — Indoor Plenum Rated (*continued*)

#### Applications

- Industrial environments
- Rugged installations
- Manufacturing plants
- Mining operations
- Telecommunications and data trunk
- Inter- and intra-building installations

#### Product Description

Heavy duty construction with interlocking aluminum armor (steel available on request) provides excellent mechanical protection from cutting or crushing and eliminates need for innerduct. Rodent resistant. Also available for outside plant. Loose tube design available on request.

<b>Jacket Material</b>		
Plenum	PVC	
<b>Buffer Tube</b>	PVC	
<b>Strength Member</b>	Aramid Yarn	
<b>Central Strength Member</b>	E-Glass	
<b>Armor</b>	Aluminum	
<b>Color Code (Buffer)</b>	Per EIA/TIA 598-A, see page 16.24	
<b>Jacket Color</b>		
Single-mode	Yellow	
62.5/125 $\mu$ m	Orange	
50/125 $\mu$ m/1 Gbe	Orange	
50/125 $\mu$ m/10 Gbe	Aqua	

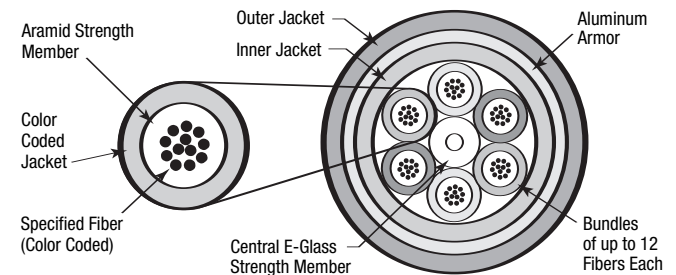
#### Ratings

<b>Plenum</b>	
UL Type	OFCP
cUL Type	OFC FT6
Flame resistance	NFPA 262

#### Specifications

<b>Temperature Range</b>	
Storage	-40 to +70°C
Operating	-20 to +70°C
<b>Crush Resistance (EIA-455-41)</b>	2000 N/cm
<b>Impact Resistance (EIA-455-25)</b>	2000 Impacts @ 3.0 N-m
<b>Min. Bend Radius</b>	
Installation	20xOD
Long term	15xOD
<b>Optical Specifications</b>	see page 16.24

#### Fiber Bundle Detail



No. of Fibers	Belden Part Number				Outside Diameter		Weight		Max. Install Load	
	62.5/125 $\mu$ m Std./1 Gbe	50.0/125 $\mu$ m Std./1 Gbe	50.0/125 $\mu$ m 10 Gbe - 300M	Single-Mode Enhanced	inch	mm	lbs./1000'	kg/km	lbs.	N

#### Industrial Armored Series

Plenum (NEC/CEC OFCP/OFC FT6)										
6	M9B240	M9A240	M9C240	M9W240	0.471	12.00	87	129	270	1201
12	M9B241	M9A241	M9C241	M9W241	0.506	12.90	103	153	300	1334
24	M9B242*	M9A242*	M9C242*	M9W242*	0.631	16.00	151	225	390	1735
24	M9B243	M9A243	M9C243	M9W243	0.781	19.84	289	430	600	2700
36	M9B244	M9A244	M9C244	M9W244	0.881	22.38	309	460	600	2700
48	M9B245	M9A245	M9C245	M9W245	0.906	23.01	320	476	600	2700
72	M9B246	M9A246	M9C246	M9W246	1.056	26.82	451	671	600	2700
96	M9B247	M9A247	M9C247	M9W247	1.256	31.90	608	905	600	2700
144	M9B248	M9A248	M9C248	M9W248	1.331	33.81	687	1022	600	2700

All optical fiber products can be supplied in compliance with RoHS regulations.  
\*Single jacket design.

## Single Jacket, All Dielectric Cable

### Loose Tube – Indoor/Outdoor Plenum Rated

#### Applications

- Medium to high fiber count requirements
- Inter-building duct installations
- Lashed aerial
- Indoor/outdoor
- Campus backbones
- Data centers
- High-density cable trays

#### Product Description

Dry water-blocking technology used within tubes and under jacket. Available as plenum rated cable, thereby eliminating the need for service entrance splicing to in-building cable. Small diameter and bend radius facilitate installation in tight spaces. Full dielectric construction, no grounding required. Available with up to 144 fibers. Fibers grouped into sets of 12 for maximum density. Length markings in meters for easy determination of cable length.

<b>Jacket Material</b>	
Non-unitized	PVC
Unitized	PVDF
<b>Buffer Tube</b>	PVC
<b>Strength Member</b>	E-Glass and Aramid Yarn
<b>Central Strength Member</b>	Upjacketed
<b>Color Code (Buffer)</b>	Per EIA/TIA 598-A, see page 16.24
<b>Jacket Color</b>	Black

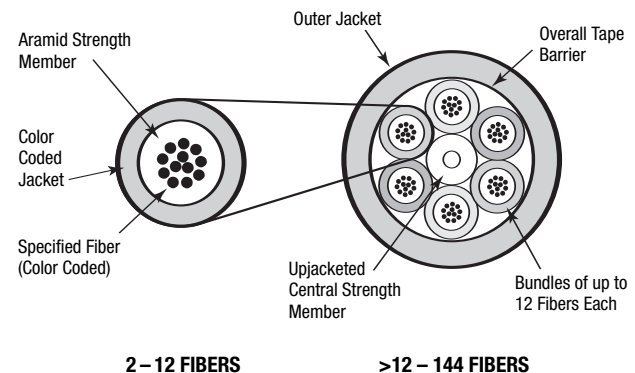
#### Ratings

<b>Plenum</b>	
UL Type	OFNP
cUL Type	OFN FT6
Flame resistance	NFPA 262

#### Specifications

<b>Temperature Range</b>	
Storage	-40 to +80°C
Operating	-40 to +70°C
Installation	0 to +60°C
<b>Crush Resistance (EIA-455-41)</b>	2000 N/cm
<b>Impact Resistance (EIA-455-25)</b>	2000 Impacts @ 1.6 N-m
<b>Cyclic Flexing (EIA-455-104)</b>	2000 cycles, min.
<b>Min. Bend Radius</b>	
Installation	20xOD
Long term	15xOD
<b>Optical Specifications</b>	see page 16.24

#### Fiber Bundle Detail



No. of Fibers	Fibers per tube	Belden Part Number				Outside Diameter		Weight		Max. Install Load	
		62.5/125 µm Std./1 Gbe	50.0/125 µm Std./1 Gbe	50.0/125 µm 10 Gbe - 300M	Single-Mode Enhanced	inch	mm	lbs./1000'	kg/km	lbs.	N

#### Loose Tube Series

Plenum (NEC/CEC OFNP/OFN FT6)											
6	6	M9B202	M9A202	M9C202	M9W202	0.265	6.70	33	49	320	1423
12	12	M9B204	M9A204	M9C204	M9W204	0.265	6.70	33	49	320	1423
24	12	M9B205	M9A205	M9C205	M9W205	0.359	9.12	47	70	405	1801
36	12	M9B206	M9A206	M9C206	M9W206	0.359	9.12	47	70	405	1801
48	12	M9B207	M9A207	M9C207	M9W207	0.359	9.12	48	71	405	1801
72	12	M9B209	M9A209	M9C209	M9W209	0.429	10.90	71	106	585	2602
96	12	M9B211	M9A211	M9C211	M9W211	0.501	12.73	105	156	903	4017
144	12	M9B215	M9A215	M9C215	M9W215	0.665	16.89	189	281	1263	5618

Alternative fiber counts and hybrid constructions are available.