

## OVERVIEW

Prysmian's Sirocco cables provide optimized jetting performance for underground microduct installations or jetting directly over existing cable. Prysmian offers solutions for microducts ranging from 8 mm to 14 mm, or larger, inside diameters. These small diameter cables combine high reliability with reduced size and weight for optimum blowing performance.

Prysmian's Sirocco<sup>HD</sup> cables leverage the capabilities of our industry-leading, 200 µm Bend-Insensitive Fiber to provide some of the highest fiber densities available.

With this approach, network operators can maximize duct utilization, defer capital expenditures to match revenue streams, maintain flexibility for future growth, and reduce installation and upgrade costs.

## SPECIFICATIONS / RATINGS

- Applications** Jetted microduct deployment, installed in microducts or partially filled duct
- Constructions** Stranded dielectric loose tube/specialized jacket and construction
- Fiber Count** 12 to 864 fibers in color-coded buffer tubes
- Fiber Types** Bend-insensitive SMF
  - Options** Tonewire
- Standards** ANSI / ICEA 744, IEC 60794, RUS, GR-20
- Registered Supplier** ISO 9001, ISO 14001, TL 9000, and OHSAS 18001



## FEATURES AND BENEFITS

### Optimal Jetting Performance

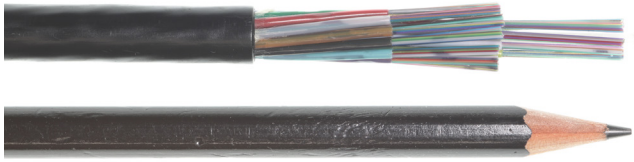
- Reduced size and weight for installation in microduct
- Up to 65% reduction in cross-section vs. conventional
- Demonstrated results of more than 1-1/4 miles (single) and 6 miles (cascaded)
- Simple and standard loose tube entry via ripcords, swellable binders, and flexible buffer tubes

### Industry-Leading Fiber Density

- Up to 432 fibers in a single, 10mm ID duct
- Smaller ducts, vaults and equipment
- Reduced carbon footprint

### Reduced Total Installed Cost

- Reduce total Installed Cost
- Defer CAPEX by maximizing duct utilization
- Reduce installation and upgrade costs
- Minimize disruption to underground infrastructure
- Quick installation - long lengths and high speeds
- Allow use of ducts already containing cable
- Microduct options available with mid-span express buffer tube storage capabilities shown in the below table



A 432-count Sirocco<sup>HD</sup> cable has a diameter similar to a pencil and will fit a 10mm ID microduct.

Minimum Microduct ID (mm)	Dielectric Fiber Count	Recommended Optical Fiber Count	Recommended All-Dielectric Part Number*	Tone Wire Option # Fibers (Gauge)	# Fibers Per Tube	Tube Size (mm)	SMF Max Express Tube Storage (ft)	Diameter		Approx. Cable Weight		Min. Bend Radius vs. Cable OD (Load)	Min. Bend Radius vs. Cable OD (No Load)	Tensile Load Maximum / Operating (lbf)
								Inches	mm	lb/kft	kg/km			

### Sirocco (250 µm fiber)

8	12-72	12	MDMIJKT-12-AA-012-BB	20	12	1.55	6	0.22	5.7	20	30	20x	15x	156/52
		24	MDMIJKT-12-AA-024-BB											156/52
		48	MDMIJKT-12-AA-048-BB											156/52
		72	MDMIJKT-12-AA-072-BB											156/52
10	96	96	MDMIJKT-12-AA-096-BB	20	12	1.55	6	0.26	6.5	28	42	20x	15x	225/75
10	120-144	144	MDMIJKT-24-AA-144-BB	19	24	2.2	6	0.30	7.7	36	50	20x	15x	300/90
12	108-144	144	MDMIJKT-12-AA-144-BB	20	12	1.55	8	0.35	8.6	43	65	20x	15x	300/90
13	156-288	288	MDMIJKT-12-AA-288-BB	20	12	1.55	8	0.41	10.1	61	92	20x	15x	300/90

### Sirocco<sup>HD</sup> (200 µm fiber)

7	96	8x12	MDHIJKT-12-AA-096-E1	--	12	1.1	--	0.19	4.7	13	20	20x	15x	112/34
8	144	12x12	MDHIJKT-12-AA-144-E1	--	12	1.1	--	0.23	5.9	20	30	20x	15x	112/34
8	192	8x24	MDHIJKT-24-AA-144-E1	--	24	1.4	--	0.24	6	23	35	20x	15x	112/34
10	288	24x12	MDHIJKT-12-AA-288-E1	--	12	1.1	--	0.31	7.9	36	53	20x	15x	112/34
10	288	12x24	MDHIJKT-24-AA-288-E1	20	24	1.4	--	0.31	8	42	57	20x	15x	112/34
10	432	18x24	MDHIJKT-24-AA-432-E1	--	24	1.4	--	0.31	8	40	60	20x	15x	112/34
14	864	24x36	MDHIJKT-36-2X-864-E1	--	36	1.7	16	0.43	11.0	72	107	20x	15x	112/34

Part Number Family	Dielectric Fiber Count	Temperature Range		Compression	Impact	Tube Size (mm)	Mid-Span Access Tool	Maximum Reel Length	
		Operating °F (°C)	Installation °F (°C)					Feet	Meters

### Sirocco (250 µm fiber)

MDMIJKT-12-AA-012-BB	12-72	-22 to +158 (-30 to +70)	+5 to +122 (-15 to +50)	1000N/100mm	2J, R=300mm	1.55	CUS10003949	26,240	8,000
MDMIJKT-12-AA-024-BB		-22 to +158 (-30 to +70)	+5 to +122 (-15 to +50)	1000N/100mm	2J, R=300mm	1.55	CUS10003949	26,240	8,000
MDMIJKT-12-AA-048-BB		-22 to +158 (-30 to +70)	+5 to +122 (-15 to +50)	1000N/100mm	2J, R=300mm	1.55	CUS10003949	26,240	8,000
MDMIJKT-12-AA-072-BB		-22 to +158 (-30 to +70)	+5 to +122 (-15 to +50)	1000N/100mm	2J, R=300mm	1.55	CUS10003949	26,240	8,000
MDMIJKT-12-AA-096-BB	96	-22 to +158 (-30 to +70)	+5 to +122 (-15 to +50)	1000N/100mm	2J, R=300mm	1.55	CUS10003949	26,240	8,000
MDMIJKT-24-AA-144-BB	144	-22 to +158 (-30 to +70)	+14 to +122 (-10 to +50)	100N/cm	4.4 N/cm	2.2	CUS10003948	26,240	8,000
MDMIJKT-12-AA-144-BB	144	-22 to +158 (-30 to +70)	+5 to +122 (-15 to +50)	1000N/100mm	2J, R=300mm	1.55	CUS10003949	26,240	8,000

### Sirocco<sup>HD</sup> (200 µm fiber)

MDHIJKT-12-AA-096-E1	96	-22 to +158 (-30 to +70)	+14 to +122 (-10 to +50)	1000N/100mm	2J, R=300mm	1.1	--	26,240	8,000
MDHIJKT-12-AA-144-E1	144	-22 to +158 (-30 to +70)	+14 to +122 (-10 to +50)	1000N/100mm	2J, R=300mm	1.1	--	26,240	8,000
MDHIJKT-24-AA-144-E1	192	-22 to +158 (-30 to +70)	+14 to +122 (-10 to +50)	1000N/100mm	2J, R=300mm	1.4	--	26,240	8,000
MDHIJKT-12-AA-288-E1	288	-22 to +158 (-30 to +70)	+14 to +122 (-10 to +50)	1000N/100mm	2J, R=300mm	1.1	--	26,240	8,000
MDHIJKT-24-AA-288-E1	288	-22 to +158 (-30 to +70)	+14 to +122 (-10 to +50)	1000N/100mm	2J, R=300mm	1.4	--	26,240	8,000
MDHIJKT-24-AA-432-E1	432	-22 to +158 (-30 to +70)	+14 to +122 (-10 to +50)	1000N/100mm	2J, R=300mm	1.4	--	26,240	8,000
MDHIJKT-36-2X-864-E1	864	-22 to +158 (-30 to +70)	+14 to +122 (-10 to +50)	1000N/100mm	2J, R=300mm	1.7	--	26,240	8,000

\* Where AA equals glass type and BB equals attenuation

## Ordering Guide

The Prysmian Group part number incorporates several significant attributes involving cable design and optical performance. The appropriate part number can be configured using the process described below

**Example:** Sirocco microduct cable, single jacket dielectric (12 fibers/tube) with 72 single-mode fibers (printed in feet)

<b>1</b> LENGTH MARKINGS	<b>2</b> PRODUCT FAMILY	<b>3</b> CONSTRUCTION	<b>4</b> FIBER GROUPING	<b>5</b> FIBER TYPE	<b>6</b> FIBER COUNT	<b>7</b> FIBER GRADE	<b>8</b> OPTIONAL TONE WIRE
F	MDM	1JKT	12	B1	072	E3	BLANK

PART NUMBER CONSTRUCTION	
<b>1</b>	<b>LENGTH MARKINGS</b>
F = Feet or M = Meters	
<b>2</b>	<b>PRODUCT FAMILY</b>
MDM = Sirocco with 1.5 mm 12f tubes (Fiber Types B1, B2, or CU only)	
MDM = Sirocco with 2.2 mm 24f tubes (Fiber Types B1, B2, or CU only)	
MDH = Sirocco <sup>HD</sup> with 1.1mm 12f tubes (Fiber Types 22 or 2X only)	
MDH = Sirocco <sup>HD</sup> with 1.4mm 24f tubes (Fiber Types 22 or 2X only)	
MDH = Sirocco <sup>HD</sup> with 1.7mm 36F tubes (Fiber Type 2X only)	
<b>3</b>	<b>CONSTRUCTION</b>
1JKT = Single Jacket	
<b>4</b>	<b>FIBER GROUPING</b>
12 = 12f per tube	
24 = 24f per tube with two 12 fiber groups or with 24 individually colored fibers	
36 = 36f per tube with three 12 fiber groups	

FIBER INFORMATION		
<b>5</b>	<b>FIBER TYPE</b>	
<b>SINGLE-MODE</b>		
B1 = Bend-Insensitive Single-Mode (ITU G.657.A1 & G.652.D)		
B2 = Bend-Insensitive Single-Mode (ITU G.657.A2 & G.652.D)		
CU = Corning® SMF-28® Ultra Single-Mode (ITU G.657.A1 & G.652.D)		
22 = 200 um Bend-Insentive Single-Mode (ITU G.657.A2 & G.652.D)		
2X = Draka BendBrightXS 200um Single-Mode (ITU G.657.A2 & G652.D)		
<b>6</b>	<b>FIBER COUNT</b>	
012 to 864 fibers		
<b>7</b>	<b>FIBER GRADE</b>	
<b>SINGLE-MODE</b>		
	Attenuation (dB/km)	Wavelength (nm)
	E1 = 0.40/0.40/0.30	1310/1383/1550
	E3 = 0.35/0.35/0.25	1310/1383/1550
		Fiber Type
		All types
		B1, B2, or CU not available for Sirocco <sup>HD</sup>
<b>8</b>	<b>8 TONE WIRE OPTIONS (See table on page two)</b>	
19AWG = one 19AWG tone wire		
20AWG = one 20AWG tone wire		

Other cable constructions and fiber performance grades available on request.