

# Microduct Assembly 5/3.5 mm Indoor – High Grade

FRD 5/3.5 mm 1-24 -way HG

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## Features

- For indoor installation
- 5/3.5 mm microducts
- Halogen-free, flame-retardant, high grade
- 1, 4, 7, 12, 19 or 24 over-sheathed ducts
- Low friction inner surface for maximum installation lengths

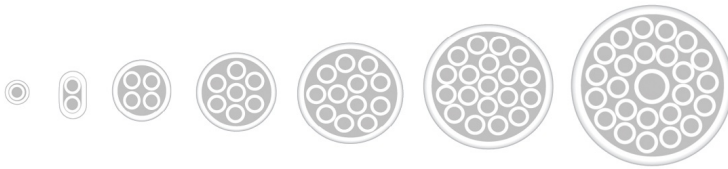
## Application

The indoor tight protected duct assemblies consist of a number of microducts with an inner low friction, antistatic surface that enables installation of air-blown fibers. These microducts are highly flame retardant and therefore suitable for indoor use.

## Design

The duct assemblies are available in several versions from 1 to 24 microducts. Each microduct has an outer/inner diameter of 5/3.5 mm. The microducts and duct assemblies including the outer sheath are made of halogen-free, flame-retardant polymer. One unsheathed single duct version for minimal cross section is available for installation in existing external protective microducts or sheaths.

## Product Information



**Microducts and sheath:** Halogen-free, flame-retardant polyolefin

## Technical Information

<b>Temperature, Operation [°C]</b>	-20 to +60
<b>Temperature, Storage [°C]</b>	-20 to +60
<b>Temperature, Installation [°C]</b>	-20 to +50
<b>Reaction to Fire</b>	IEC60332-3-24, IEC60332-1

**Conformance**

**Abrasion:** IEC 60794-1-2-E2B(1)  
**Kink:** IEC 60794-1-2-E10, 20 x outer diameter  
**Impact:** IEC 60794-1-2-E4  
**Crush:** IEC 60794-1-2-E3  
**Tensile:** IEC 60794-1-2-E  
**Bend:** IEC 60794-1-2-E11A  
**Torsion:** IEC 60794-1-2-E  
**Flexibility:** IEC 60794-1-2-E8  
**Inner Clearance:** IEC 60794-5-20, IEC 60794-5-10, Ann. D  
**Flammability:** IEC60332-3-24, IEC60332-1  
**Smoke density:** .IEC61034-2  
**Smoke volume:** ASTM E662  
**Halogen Content:** IEC 60754-1, 0%  
**Acidity/Halogen contents:** IEC60754-1/-2  
**Toxicity index:** DEFSTAN 02-713

**Marking**

Duct assemblies have markings showing the tube length.  
The individual microducts are numbered.

**Installation Notes**

Flammability according to IEC60332-3-24 refers to sheathed empty ducts and sheathed ducts installed with typical versions of Hexatronic blown fiber units. 1-way unsheathed duct MPB30246/01 excluded. The unsheathed duct shall be installed in flame resistant protective cover for best fire performance.

## Articles 19

Article name	Color	Layout	Bend Radius [mm]	Tensile Force [N]	Crush [N/100 mm]	Impact [J]	Dimensions [mm]	Weight [kg/km]	Length [m]
<b>Microduct 5/3.5 ID HGrade</b> MPB30202/1	White	5/3.5	50	60	450	2	5	15	500/PLAST
<b>Microduct 5/3.5 ID HGrade 100 m PAN</b> MPB30202/1-10	White	5/3.5	50	60	450	2	5	15	100/PAN
<b>Microduct 5/3.5 ID HGrade 500 m</b> MPB30202/1-2	White	5/3.5	50	60	450	2	5	15	500/PLAST
<b>Microduct 1x5/3.5 ID HGrade</b> MPB30201/1	White	1x5/3.5	72	110	450	2	7.2	48	1000/K5, 2000/K6, 500/K4
<b>Microduct 1x5/3.5 ID HGrade 500 m</b> MPB30201/1-2	White	1x5/3.5	72	110	450	2	7.2	48	500/K4
<b>Microduct 2x5/3.5 ID HGrade</b> MPB30203/2	White	2x5/3.5	150	300	900	2	7.2 × 12.2	80	2000/K10, 1000/K7, 500/K6
<b>Microduct 2x5/3.5 ID HGrade 500 m</b> MPB30203/2-2	White	2x5/3.5	150	300	900	2	7.2 × 12.2	80	500/K6
<b>Microduct 4x5/3.5 ID HGrade</b> MPB30203/4	White	4x5/3.5	150	400	1500	5	12.2 × 12.2	130	1000/K9, 500/K9, 4000/K14, 2000/K10
<b>Microduct 4x5/3.5 ID HGrade 500 m</b> MPB30203/4-2	White	4x5/3.5	150	400	1500	5	12.2 × 12.2	135	500/K6
<b>Microduct 7x5/3.5 ID HGrade</b> MPB30204/7CX	White	7x5/3.5	220	600	1500	10	17.2	198	4000/K20, 2000/K14, 1000/K11, 500/K11
<b>Microduct 7x5/3.5 ID HGrade</b> MPB30204/7	White	7x5/3.5	220	600	1500	10	17.2	198	4000/K20, 2000/K14, 1000/K11, 500/K11
<b>Microduct 7x5/3.5 ID HGrade 500 m</b> MPB30204/7-2	White	7x5/3.5	220	600	1500	10	17.2	190	500/K9
<b>Microduct 12x5/3.5 ID HGrade</b> MPB30205/12CX	White	12x5/3.5	300	950	1500	10	22.9	305	4000/K22, 2000/K16, 1000/K12, 500/K11
<b>Microduct 12x5/3.5 ID HGrade</b> MPB30205/12	White	12x5/3.5	300	950	1500	10	22.9	305	4000/K22, 2000/K16, 1000/K12, 500/K11
<b>Microduct 12x5/3.5 ID HGrade 500 m</b> MPB30205/12-2	White	12x5/3.5	300	950	1500	10	22.9	305	500/K10