

Microduct Assembly 7/3.5 mm

TWD 7/3.5 mm 1-24 -way S12

Features

- For direct burial
- 1, 2, 4, 7, 12, 19 or 24 bundled ducts
- 7/3.5 mm microducts
- Low friction inner surface

Application

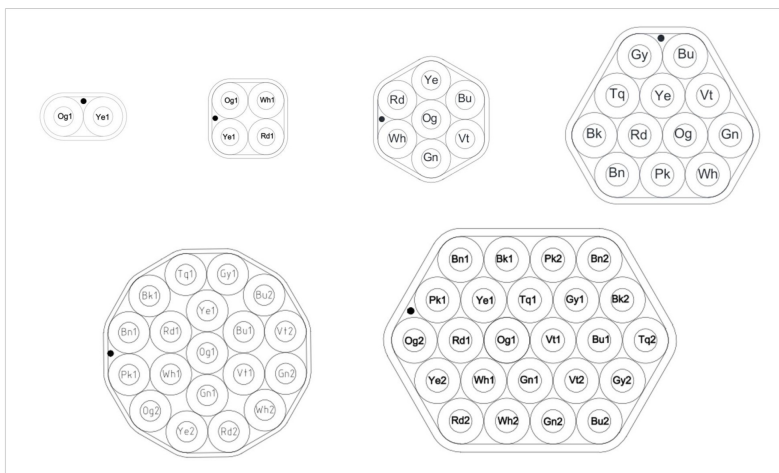
The thick walled microduct bundles consist of a number of microducts with an inner low friction surface that enables installation of air-blown fiber units or nano cables. The thick inner wall of the microducts allow for installation directly into the ground without the need for additional protection.

Design

The duct assemblies are available in several configurations from 1 to 24 microducts.

7/3.5 mm microducts are optimized for installation of air-blown fibers and nano cables. The microducts have a solid low-friction inner surface for best blowing performance.

Product Information



Microducts and outer sheath: HDPE

Technical Information

| | |
|------------------------------------|------------|
| Color Code | S12 |
| Temperature, Operation [°C] | -40 to +60 |
| Temperature, Storage [°C] | -40 to +60 |

Temperature, Installation [°C]

-20 to +50

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

Marking

Duct assemblies have markings showing the type and tube length. The individual microducts are identified by their colors.

12 different colors are used according to the S12 standard. For duct assemblies with >12 ducts, the first 12 colored ducts are marked with "1" and the following ducts are marked with "2".

The assemblies are available in various sheath colors for easy identification.

Technical Details

| | | | | | | | | | | | | | |
|-----------------------------------------|-----------------------------------------|---------------|-------------------|----------------|------------------|-------------------|-----------------------|-----------------|---------------------|-------------------------|--------------------|-------------------|------------------|
| S12 Mikrorör 1-12 Microducts 1-12 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| | Orange | Gul Yellow | Röd Red | Vit White | Grön Green | Violett Violet | Blå Blue | Grå Grey | Turkos Turquoise | Svart Black | Brun Brown | Rosa Pink | |
| | S12 Mikrorör 1-24 Microducts 1-24 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| | | Orange 1 | Gul 1 Yellow 1 | Röd 1 Red 1 | Vit 1 White 1 | Grön 1 Green 1 | Violett 1 Violet 1 | Blå 1 Blue 2 | Grå 1 Grey 1 | Turkos 1 Turquoise 1 | Svart 1 Black 1 | Brun 1 Brown 1 | Rosa 1 Pink 1 |
| | | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| | | Orange 2 | Gul 2 Yellow 2 | Röd 2 Red 2 | Vit 2 White 2 | Grön 2 Green 2 | Violett 2 Violet 2 | Blå 2 Blue 2 | Grå 2 Grey 2 | Turkos 2 Turquoise 2 | Svart 2 Black 2 | Brun 2 Brown 2 | Rosa 2 Pink 2 |

S12 Color Code Chart for Microduct Assemblies

Articles 77

| Article name | Color | Layout | Bend Radius [mm] | Tensile Force, Installation [N] | Crush [N/100 mm] | Impact [J] | Dimensions [mm] | Weight [kg/km] | Length [m] |
|-----------------------------------------------------------|--------|---------|------------------|---------------------------------|------------------|------------|-----------------|----------------|-------------------------------------------------|
| Microduct 4x7/3.5 S12 OG 500 m MPB30278/4M-2 | Orange | 4x7/3.5 | 210 | 1100 | 2500 | 15 | 15 × 15 | 175 | 500/K9 |
| Microduct 4x7/3.5 S12 YE 4/MPB30278/4M | Yellow | 4x7/3.5 | 210 | 1100 | 2500 | 15 | 15 × 15 | 175 | 5000/K20, 4000/K18, 2000/K14, 1000/K11 |
| Microduct 4x7/3.5 S12 YE 1000 m 4/MPB30278/4M-1 | Yellow | 4x7/3.5 | 210 | 1100 | 2500 | 15 | 15 × 15 | 175 | 1000/K11 |
| Microduct 4x7/3.5 S12 YE 500 m 4/MPB30278/4M-2 | Yellow | 4x7/3.5 | 210 | 1100 | 2500 | 15 | 15 × 15 | 175 | 500/K9 |
| Microduct 4x7/3.5 S12 RD 2/MPB30278/4M | Red | 4x7/3.5 | 210 | 1100 | 2500 | 15 | 15 × 15 | 175 | 5000/K20, 4000/K18, 2000/K14, 1000/K11 |
| Microduct 4x7/3.5 S12 RD 1000 m 2/MPB30278/4M-1 | Red | 4x7/3.5 | 210 | 1100 | 2500 | 15 | 15 × 15 | 175 | 1000/K11 |
| Microduct 4x7/3.5 S12 RD 500 m 2/MPB30278/4M-2 | Red | 4x7/3.5 | 210 | 1100 | 2500 | 15 | 15 × 15 | 175 | 500/K9 |
| Microduct 4x7/3.5 S12 WH 5/MPB30278/4M | White | 4x7/3.5 | 210 | 1100 | 2500 | 15 | 15 × 15 | 175 | 5000/K20, 4000/K18, 2000/K14, 1000/K11 |
| Microduct 4x7/3.5 S12 WH 1000 m 5/MPB30278/4M-1 | White | 4x7/3.5 | 210 | 1100 | 2500 | 15 | 15 × 15 | 175 | 1000/K11 |
| Microduct 4x7/3.5 S12 WH 500 m 5/MPB30278/4M-2 | White | 4x7/3.5 | 210 | 1100 | 2500 | 15 | 15 × 15 | 175 | 500/K9 |
| Microduct 4x7/3.5 S12 GN 1/MPB30278/4M | Green | 4x7/3.5 | 210 | 1100 | 2500 | 15 | 15 × 15 | 175 | 5000/K20, 4000/K18, 2000/K14, 1000/K11 |
| Microduct 4x7/3.5 S12 GN 1000 m 1/MPB30278/4M-1 | Green | 4x7/3.5 | 210 | 1100 | 2500 | 15 | 15 × 15 | 175 | 1000/K11 |
| Microduct 4x7/3.5 S12 GN 500 m 1/MPB30278/4M-2 | Green | 4x7/3.5 | 210 | 1100 | 2500 | 15 | 15 × 15 | 175 | 500/K9 |
| Microduct 4x7/3.5 S12 VT 6/MPB30278/4M | Violet | 4x7/3.5 | 210 | 1100 | 2500 | 15 | 15 × 15 | 175 | 5000/K20, 4000/K18, 2000/K14, 1000/K11 |
| Microduct 4x7/3.5 S12 BU 3/MPB30278/4M | Blue | 4x7/3.5 | 210 | 1100 | 2500 | 15 | 15 × 15 | 175 | 5000/K20, 4000/K18, 2000/K14, 1000/K11 |
| Microduct 4x7/3.5 S12 BU 1000 m 3/MPB30278/4M-1 | Blue | 4x7/3.5 | 210 | 1100 | 2500 | 15 | 15 × 15 | 175 | 1000/K11 |

| Article name | Color | Layout | Bend Radius [mm] | Tensile Force, Installation [N] | Crush [N/100 mm] | Impact [J] | Dimensions [mm] | Weight [kg/km] | Length [m] |
|-----------------------------------------------------------|------------|---------|------------------|---------------------------------|------------------|------------|-----------------|----------------|-------------------------------------------------|
| Microduct 4x7/3.5 S12 BU 500 m 3/MPB30278/4M-2 | Blue | 4x7/3.5 | 210 | 1100 | 2500 | 15 | 15 × 15 | 175 | 500/K9 |
| Microduct 4x7/3.5 S12 GY 9/MPB30278/4M | Gray/Slate | 4x7/3.5 | 210 | 1100 | 2500 | 15 | 15 × 15 | 175 | 5000/K20, 4000/K18, 1000/K11, 2000/K14 |
| Microduct 4x7/3.5 S12 GY 1000 m 9/MPB30278/4M-1 | Gray/Slate | 4x7/3.5 | 210 | 1100 | 2500 | 15 | 15 × 15 | 175 | 1000/K11 |
| Microduct 4x7/3.5 S12 GY 500 m 9/MPB30278/4M-2 | Gray/Slate | 4x7/3.5 | 210 | 1100 | 2500 | 15 | 15 × 15 | 175 | 500/K9 |
| Microduct 4x7/3.5 S12 PK 1000 m 7/MPB30278/4M-1 | Pnk/Rose | 4x7/3.5 | 210 | 1100 | 2500 | 15 | 15 × 15 | 175 | 1000/K11 |
| Microduct 4x7/3.5 S12 PK 7/MPB30278/4M | Pnk/Rose | 4x7/3.5 | 210 | 1100 | 2500 | 15 | 15 × 15 | 175 | 5000/K20, 4000/K18, 2000/K14, 1000/K11 |
| Microduct 4x7/3.5 S12 PK 500 m 7/MPB30278/4M-2 | Pnk/Rose | 4x7/3.5 | 210 | 1100 | 2500 | 15 | 15 × 15 | 175 | 500/K9 |
| Microduct 7x7/3.5 S12 OG MPB30278/7M | Orange | 7x7/3.5 | 220 | 2300 | 2500 | 15 | 22 | 250 | 4000/K22, 2000/K18, 1000/K12 |
| Microduct 7x7/3.5 S12 OG 1000 m MPB30278/7M-1 | Orange | 7x7/3.5 | 220 | 2300 | 2500 | 15 | 22 | 250 | 1000/E14 |
| Microduct 7x7/3.5 S12 OG 500 m MPB30278/7M-2 | Orange | 7x7/3.5 | 220 | 2300 | 2500 | 15 | 22 | 250 | 500/E14 |
| Microduct 7x7/3.5 S12 YE 4/MPB30278/7M | Yellow | 7x7/3.5 | 220 | 2300 | 2500 | 15 | 22 | 250 | 4000/K22, 2000/K18, 1000/K12 |
| Microduct 7x7/3.5 S12 YE 1000 m 4/MPB30278/7M-1 | Yellow | 7x7/3.5 | 220 | 2300 | 2500 | 15 | 22 | 250 | 1000/E14 |
| Microduct 7x7/3.5 S12 YE 500 m 4/MPB30278/7M-2 | Yellow | 7x7/3.5 | 220 | 2300 | 2500 | 15 | 22 | 250 | 500/E14 |
| Microduct 7x7/3.5 S12 RD 2/MPB30278/7M | Red | 7x7/3.5 | 220 | 2300 | 2500 | 15 | 22 | 250 | 4000/K22, 2000/K18, 1000/K12 |
| Microduct 7x7/3.5 S12 RD 1000 m 2/MPB30278/7M-1 | Red | 7x7/3.5 | 220 | 2300 | 2500 | 15 | 22 | 250 | 1000/E14 |
| Microduct 7x7/3.5 S12 RD 500 m 2/MPB30278/7M-2 | Red | 7x7/3.5 | 220 | 2300 | 2500 | 15 | 22 | 250 | 500/E14 |
| Microduct 7x7/3.5 S12 WH 5/MPB30278/7M | White | 7x7/3.5 | 220 | 2300 | 2500 | 15 | 22 | 250 | 4000/K22, 2000/K18, 1000/K12 |
| Microduct 7x7/3.5 S12 WH 1000 m 5/MPB30278/7M-1 | White | 7x7/3.5 | 220 | 2300 | 2500 | 15 | 22 | 250 | 1000/E14 |
| Microduct 7x7/3.5 S12 WH 500 m 5/MPB30278/7M-2 | White | 7x7/3.5 | 220 | 2300 | 2500 | 15 | 22 | 250 | 500/E14 |

| Article name | Color | Layout | Bend Radius [mm] | Tensile Force, Installation [N] | Crush [N/100 mm] | Impact [J] | Dimensions [mm] | Weight [kg/km] | Length [m] |
|-------------------------------------------------------------|------------|----------|------------------|---------------------------------|------------------|------------|-----------------|----------------|------------------------------------|
| Microduct 7x7/3.5 S12 GN 1/MPB30278/7M | Green | 7x7/3.5 | 220 | 2300 | 2500 | 15 | 22 | 250 | 4000/K22, 2000/K18, 1000/K12 |
| Microduct 7x7/3.5 S12 GN 1000 m 1/MPB30278/7M-1 | Green | 7x7/3.5 | 220 | 2300 | 2500 | 15 | 22 | 250 | 1000/E14 |
| Microduct 7x7/3.5 S12 GN 500 m 1/MPB30278/7M-2 | Green | 7x7/3.5 | 220 | 2300 | 2500 | 15 | 22 | 250 | 500/E14 |
| Microduct 7x7/3.5 S12 VT 6/MPB30278/7M | Violet | 7x7/3.5 | 220 | 2300 | 2500 | 15 | 22 | 250 | 4000/K22, 2000/K18, 1000/K12 |
| Microduct 7x7/3.5 S12 VT 1000 m 6/MPB30278/7M-1 | Violet | 7x7/3.5 | 220 | 2300 | 2500 | 15 | 22 | 250 | 1000/E14 |
| Microduct 7x7/3.5 S12 VT 500 m 6/MPB30278/7M-2 | Violet | 7x7/3.5 | 220 | 2300 | 2500 | 15 | 22 | 250 | 500/E14 |
| Microduct 7x7/3.5 S12 BU 3/MPB30278/7M | Blue | 7x7/3.5 | 220 | 2300 | 2500 | 15 | 22 | 250 | 4000/K22, 2000/K18, 1000/K12 |
| Microduct 7x7/3.5 S12 BU 1000 m 3/MPB30278/7M-1 | Blue | 7x7/3.5 | 220 | 2300 | 2500 | 15 | 22 | 250 | 1000/E14 |
| Microduct 7x7/3.5 S12 BU 500 m 3/MPB30278/7M-2 | Blue | 7x7/3.5 | 220 | 2300 | 2500 | 15 | 22 | 250 | 500/E14 |
| Microduct 7x7/3.5 S12 GY 9/MPB30278/7M | Gray/Slate | 7x7/3.5 | 220 | 2300 | 2500 | 15 | 22 | 250 | 4000/K22, 2000/K18, 1000/K12 |
| Microduct 7x7/3.5 S12 GY 1000 m 9/MPB30278/7M-1 | Gray/Slate | 7x7/3.5 | 220 | 2300 | 2500 | 15 | 22 | 250 | 1000/E14 |
| Microduct 7x7/3.5 S12 GY 500 m 9/MPB30278/7M-2 | Gray/Slate | 7x7/3.5 | 220 | 2300 | 2500 | 15 | 22 | 250 | 500/E14 |
| Microduct 7x7/3.5 S12 PK 7/MPB30278/7M | Pink/Rose | 7x7/3.5 | 220 | 2300 | 2500 | 15 | 22 | 250 | 4000/K22, 2000/K18, 1000/K12 |
| Microduct 7x7/3.5 S12 PK 1000 m 7/MPB30278/7M-1 | Pink/Rose | 7x7/3.5 | 220 | 2300 | 2500 | 15 | 22 | 250 | 1000/E14 |
| Microduct 7x7/3.5 S12 PK 500 m 7/MPB30278/7M-2 | Pink/Rose | 7x7/3.5 | 220 | 2300 | 2500 | 15 | 22 | 250 | 500/E14 |
| Microduct 12x7/3.5 S12 OG MPB30278/12M | Orange | 12x7/3.5 | 300 | 3600 | 2500 | 15 | 30 | 455 | 2000/K22, 1000/K16 |
| Microduct 12x7/3.5 S12 OG 1000 m MPB30278/12M-1 | Orange | 12x7/3.5 | 300 | 3600 | 2500 | 15 | 30 | 455 | 1000/E14 |
| Microduct 12x7/3.5 S12 OG 500 m MPB30278/12M-2 | Orange | 12x7/3.5 | 300 | 3600 | 2500 | 15 | 30 | 455 | 500/E14 |
| Microduct 12x7/3.5 S12 YE 4/MPB30278/12M | Yellow | 12x7/3.5 | 300 | 3600 | 2500 | 15 | 30 | 455 | 2000/K22, 1000/K16 |
| Microduct 12x7/3.5 S12 YE 1000 m 4/MPB30278/12M-1 | Yellow | 12x7/3.5 | 300 | 3600 | 2500 | 15 | 30 | 455 | 1000/E14 |

| Article name | Color | Layout | Bend Radius [mm] | Tensile Force, Installation [N] | Crush [N/100 mm] | Impact [J] | Dimensions [mm] | Weight [kg/km] | Length [m] |
|-------------------------------------------------------------|------------|----------|------------------|---------------------------------|------------------|------------|-----------------|----------------|-----------------------------------|
| Microduct 12x7/3.5 S12 YE 500 m 4/MPB30278/12M-2 | Yellow | 12x7/3.5 | 300 | 3600 | 2500 | 15 | 30 | 455 | 500/E14 |
| Microduct 12x7/3.5 S12 RD 2/MPB30278/12M | Red | 12x7/3.5 | 300 | 3600 | 2500 | 15 | 30 | 455 | 2000/K22, 1000/K16 |
| Microduct 12x7/3.5 S12 RD 1000 m 2/MPB30278/12M-1 | Red | 12x7/3.5 | 300 | 3600 | 2500 | 15 | 30 | 455 | 1000/E14 |
| Microduct 12x7/3.5 S12 RD 500 m 2/MPB30278/12M-2 | Red | 12x7/3.5 | 300 | 3600 | 2500 | 15 | 30 | 455 | 500/E14 |
| Microduct 12x7/3.5 S12 WH 5/MPB30278/12M | White | 12x7/3.5 | 300 | 3600 | 2500 | 15 | 30 | 455 | 2000/K22, 1000/K16 |
| Microduct 12x7/3.5 S12 WH 1000 m 5/MPB30278/12M-1 | White | 12x7/3.5 | 300 | 3600 | 2500 | 15 | 30 | 455 | 1000/E14 |
| Microduct 12x7/3.5 S12 WH 500 m 5/MPB30278/12M-2 | White | 12x7/3.5 | 300 | 3600 | 2500 | 15 | 30 | 455 | 500/E14 |
| Microduct 12x7/3.5 S12 GN 1/MPB30278/12M | Green | 12x7/3.5 | 300 | 3600 | 2500 | 15 | 30 | 455 | 2000/K22, 1000/K16 |
| Microduct 12x7/3.5 S12 GN 1000 m 1/MPB30278/12M-1 | Green | 12x7/3.5 | 300 | 3600 | 2500 | 15 | 30 | 455 | 1000/E14 |
| Microduct 12x7/3.5 S12 GN 500 m 1/MPB30278/12M-2 | Green | 12x7/3.5 | 300 | 3600 | 2500 | 15 | 30 | 455 | 500/E14 |
| Microduct 12x7/3.5 S12 VT 6/MPB30278/12M | Violet | 12x7/3.5 | 300 | 3600 | 2500 | 15 | 30 | 455 | 2000/K22, 1000/K16 |
| Microduct 12x7/3.5 S12 BU 3/MPB30278/12M | Blue | 12x7/3.5 | 300 | 3600 | 2500 | 15 | 30 | 455 | 2000/K22, 1000/K16 |
| Microduct 12x7/3.5 S12 BU 1000 m 3/MPB30278/12M-1 | Blue | 12x7/3.5 | 300 | 3600 | 2500 | 15 | 30 | 455 | 1000/E14 |
| Microduct 12x7/3.5 S12 BU 500 m 3/MPB30278/12M-2 | Blue | 12x7/3.5 | 300 | 3600 | 2500 | 15 | 30 | 455 | 500/E14 |
| Microduct 12x7/3.5 S12 GY 9/MPB30278/12M | Gray/Slate | 12x7/3.5 | 300 | 3600 | 2500 | 15 | 30 | 455 | 2000/K22, 1000/K16 |
| Microduct 12x7/3.5 S12 GY 1000 m 9/MPB30278/12M-1 | Gray/Slate | 12x7/3.5 | 300 | 3600 | 2500 | 15 | 30 | 455 | 1000/E14 |
| Microduct 12x7/3.5 S12 GY 500 m 9/MPB30278/12M-2 | Gray/Slate | 12x7/3.5 | 300 | 3600 | 2500 | 15 | 30 | 455 | 500/E14 |
| Microduct 12x7/3.5 S12 PK 7/MPB30278/12M | Pink/Rose | 12x7/3.5 | 300 | 3600 | 2500 | 15 | 30 | 455 | 2000/K22, 1000/K16 |
| Microduct 12x7/3.5 S12 PK 1000 m 7/MPB30278/12M-1 | Pink/Rose | 12x7/3.5 | 300 | 3600 | 2500 | 15 | 30 | 455 | 1000/E14 |
| Microduct 12x7/3.5 S12 PK 500 m 7/MPB30278/12M-2 | Pink/Rose | 12x7/3.5 | 300 | 3600 | 2500 | 15 | 30 | 455 | 500/E14 |
| Microduct 19x7/3.5 S12 OG MPB30278/19M | Orange | 19x7/3.5 | 360 | 5600 | 2500 | 15 | 36 | 455 | 2000/K22, 1000/K20, 500/K14 |

| Article name | Color | Layout | Bend Radius [mm] | Tensile Force [N] | Crush [N/100 mm] | Impact [J] | Dimensions [mm] | Weight [kg/km] | Length [m] |
|-------------------------------------------|--------|----------|------------------|-------------------|------------------|------------|-----------------|----------------|----------------------|
| Microduct 24x7/3.5 S12 OG MPB30278/24M | Orange | 24x7/3.5 | 440 | 7000 | 2500 | 15 | 44 × 33 | 798 | 500/K16, 1000/K22 |