

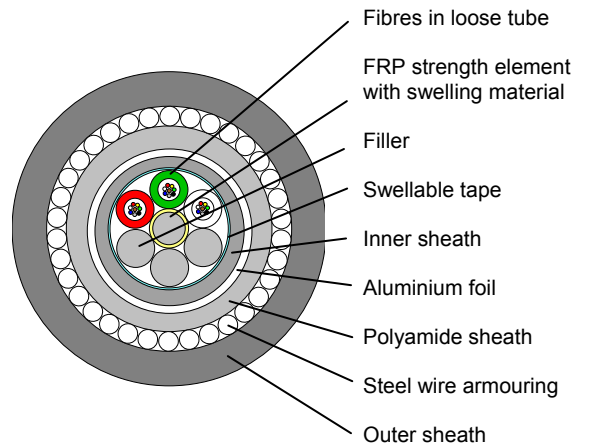


## PetroBlock™ protected Optical Cable - QLQP

Outdoor – Direct Burial  
Chemical protected  
Flame retardant  
Loose tube

### QLQP- O/DB/R10-JM/W

Optical cable for direct burial or duct installation in areas with chemicals and oils. The outer sheath is made of flame retardant and oil resistant PVC. The cable has a strong steel wire armouring which also acts as rodent protection. The *PetroBlock™* inner sheath protects the cable core against chemicals, oils and insects. The cable core contains swelling material to prevent longitudinal moisture penetration. The fibres are protected in jelly filled loose tubes stranded around a central strength member to ensure optimum performance and long life. Each fibre and loose tubes is colour coded for easy identification during splicing and termination. The outer sheath is marked to show fibre type and cable type. *PetroBlock™* protection sheath is tested and certified by Det norske Veritas (DnV). Test documentation is available on request.



### Weight and dimensions

Number of fibres	Number of fibres in each tube	Number of tubes + fillers	Loose tube diameter (mm)	Outer diameter (mm)	Weight kg/km
12	12	1+5	2.3	17.4	474
24	12	2+4	2.3	17.4	474
48	12	4+2	2.3	17.4	474

Other fibre counts are available on request.

### Cable properties

<b>Tensile strength</b> (IEC 60794-1-2E1)		<b>Temperature window</b>	
Max tensile load during installation	10.000 N	Operation	-40°C to +70°C
Max tensile load during operation	8.000 N	Installation	-10°C to +60°C
		Storage	-40°C to +70°C
<b>Crush</b> (IEC 60794-1-2E3)		<b>Water tightness</b> Cable core (IEC 60794-1-2F5)	
	3000 N/10 cm		< 3 m/24 hours
<b>Impact</b> (IEC 60794-1-2E4)		<b>Oil and chemical protection</b>	
	1 impact, 25 J	Peel strength Aluminium overlapp (ASTM D1876)	> 40 N/25mm
<b>Torsion</b> (IEC 60794-1-2E7)		DIN 57207, part 3A1,	
	± 1 turn/1 m	ASTM Oil No.3	90°C, 74 weeks*
<b>Cable bending</b>		Diesel fuel	90°C, 74 weeks*
Minimum bending diameter	20 x D	*) No sign of gases or liquid inside the aluminium foil after tests.	
Cable bend (IEC 60794-1-2E11)	<0.1dB/ ± 5 turn		



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### Ordering information

9/125 fibre(SMF652D), Black**		50/125 fibre(MMF50HiCap), Black**		62.5/125 fibre(MMF62HiCap), Black**	
Part no.	Cable code	Part no.	Cable code	Part no.	Cable code
699845	G12-9/125 QLQP-O/DB/R10-JM/W	630123	G12-50/125 QLQP-O/DB/R10-JM/W	699774	G12-62.5/125 QLQP-O/DB/R10-JM/W
699846	G24-9/125 QLQP-O/DB/R10-JM/W *	630124	G24-50/125 QLQP-O/DB/R10-JM/W	699840	G24-62.5/125 QLQP-O/DB/R10-JM/W
630126	G48-9/125 QLQP-O/DB/R10-JM/W *	630125	G48-50/125 QLQP-O/DB/R10-JM/W *	630152	G48-62.5/125 QLQP-O/DB/R10-JM/W *

\*\*)-Standard colour of outer sheath.

We reserve the right to alter this specification without notice.

\* Not standard portfolio – limited availability

### Optical fibres

Fibre type	9/125	HiCap 50/125	MaxCap 50/125	HiCap 62.5/125
Reference(DNK)	SMF652D	MMF50HiCap	MMF50MaxCap	MMF62HiCap
IEC60793-2-50 category	B.1.3	A1a	A1a.2	A1b
IEC11801 classification	OS1 and OS2	OM2	OM3	OM1
ITU-T type	G652.D	G651	G651	-
<b>Gigabit Ethernet maximum distances</b> SX-serial(850 nm) LX-serial(1310 nm)	5000m	750 m 2000 m	900 m 550 m	500 m 1000 m
<b>10Gigabit Ethernet maximum distances</b> SX-serial(850 nm) LX-serial(1310 nm)	10000 m	110 m	300 m	65 m
<b>Core diameter</b>	See mode field diameter	50 ± 2.5 µm	50 ± 2.5 µm	62.5 ± 2.5 µm
<b>Mode field diameter</b>	1310 nm 9.2 ± 0.4 µm 1550 nm 10.3 ± 0.5 µm			
<b>Cladding diam. loose tube</b>	125 ± 0.7 µm	125 ± 2.0 µm	125 ± 2.0 µm	125 ± 2.0 µm
<b>Cladding diam. tight buffer</b>	125 ± 0.7 µm	125 ± 2.0 µm	125 ± 2.0 µm	125 ± 2.0 µm
<b>Primary coating diameter (nominal)</b>	242 ± 7 µm	250 µm	250 µm	250 µm
<b>Attenuation (Typical values)</b> 850 nm 1300 nm 1310 nm 1550 nm	0.33 – 0.37 dB/km 0.19 – 0.23dB/km	≤ 2.5 dB/km ≤ 0.7 dB/km	≤ 2.5 dB/km ≤ 0.7 dB/km	≤ 3.0 dB/km ≤ 0.7 dB/km
<b>Attenuation (Maximum values)</b> 850 nm 1300 nm 1310 nm 1550 nm	≤ 0.40 dB/km ≤ 0.25 dB/km	≤ 2.7 dB/km ≤ 0.8 dB/km	≤ 2.7 dB/km ≤ 0.9 dB/km	≤ 3.2 dB/km ≤ 1.0 dB/km
<b>Bandwidth(OFL*)</b> 850 nm 1300 nm		>600 MHz·km >1200 MHz·km	>1500 MHz·km >500 MHz·km	>200 MHz·km >600 MHz·km
<b>Chromatic Dispersion</b> 1285-1330 nm 1550 nm	≤ 3 ps/nm·km ≤ 18 ps/nm·km			
<b>Polarization Mode Disp.</b> PMD Link Design Value ** Max. Individual Fibre	≤ 0.06 √km ≤ 0.1 √km			
<b>Numerical aperture</b>	0.13 (nominal)	0.200 ± 0.015	0.200 ± 0.015	0.275 ± 0.015
<b>Minimum permanent bending diameter</b>	50 mm	50 mm	50 mm	50 mm

\* Over Filled Launch methode(OFL). Modal Bandwidth in accordance with IEC60793-1-41.

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\*\* According to IEC 60794-3, Ed.3 (Q=0.01%)

Other fibre types and qualities are available on request.