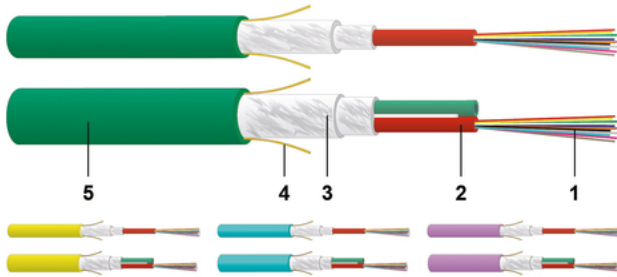


FO Universal ZGGFR / U-DQ(ZN)BH

up to 24 fibres, Euroclass Dca
 metal-free, dry interstices,
 rodent protection, flame retardant
 in accordance with IEC 60332-1-2 and IEC 60332-3-24



- 1 ≤ 24 fibres
- 2 Loose tube
- 3 Glass armour
- 4 Ripcord
- 5 FR/LS0H sheath



DESCRIPTION

Robust, non-metallic fibre optic outdoor and indoor cable with one or two central loose-tubes.
 High crush resistance for high transmission reliability.
 Easy handling due to cable construction with dry interstices.
 Non-metallic rodent protection.
 The two coloured ripcords are easy to identify and enable the safe opening of the cable sheath.
 Flame retardant halogen-free FR/LS0H sheath.

APPLICATION

LAN backbone, access and riser zone.
 Connection cable between the building distributors and/or floor distributors.
 Suitable for laying in cable trays, ducts and vertical shafts.
 Can also be spliced in all FO distributors and joints.

OPTICAL PROPERTIES

The cables are available with different types of optical fibre (see fibre data sheets).

MECHANICAL PROPERTIES

Temperature range	storage:	-25/+70°C	EN 60794-1-22 F1
	during installation:	-10/+50°C	
	in operation:	-25/+60°C	
Tensile performance:	IEC 60794-1-21 E1/test criterion 0.33% reversible optical fibre elongation		
Crush resistance:	IEC 60794-1-21 E3		
Impact:	IEC 60794-1-21 E4		
Repeated bending:	IEC 60794-1-21 E6		
Torsion:	IEC 60794-1-21 E7		
Bend:	IEC 60794-1-21 E11		
Water penetration:	IEC 60794-1-22 F5		

GENERAL PROPERTIES

Sheath colour	G.652.D OS2:	green or yellow
	G.652.D (BLO) OS2:	green or yellow
	G50/125 OM3:	green or turquoise
	G50/125 OM4:	green or heather violet

STANDARDS

UV resistance	EN 50289-4-17
Reaction to fire (Euroclass)	EN 13501-6: D _{ca}
Imprint	DATWYLER «cable type» «Datwyler designation» «DIN designation» «no. of fibres» «fibre type» «add. text» «batch no.» «meter marks»
Zero halogen, no corrosive gases	IEC 60754-1/-2, EN 60754-1/-2, VDE 0482-754-1/-2

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Flame propagation IEC 60332-1-2, EN 60332-1-2, VDE 0482-332-1-2
Flame spread IEC 60332-3-24, EN 60332-3-24, VDE 0482-332-3-24
Smoke density IEC 61034-1/-2, EN 61034-1/-2, VDE 0482-1034-1/-2

VERSIONS

Article No.	DoP	Product	Reaction to fire (Euroclass)	Number of fibres	Loose Tubes	Sheath colour	Fibre type	Sheath Ø [mm]	Weight [kg/km]	Bending radius [mm]	Tensile load continuous [N]	Tensile load short term [N]	Crush resistance continuous [N]	Crush resistance short term [N]	Fire load [kWh/m]	PU
19020300DZ		FO Universal 1x4	Dca-s2,d1,a1	4	1	green	E9/125 G.652.D OS2	7.6	67	115	1000	3000	3000	5000	0.275	by the metre
18598900DZ		FO Universal 1x4	Dca-s2,d1,a1	4	1	green	G50/125 OM3	7.6	67	115	1000	3000	3000	5000	0.275	by the metre
19271200DZ		FO Universal 1x4	Dca-s2,d1,a1	4	1	green	G50/125 OM4	7.6	67	115	1000	3000	3000	5000	0.275	by the metre
19020400DZ		FO Universal 1x6	Dca-s2,d1,a1	6	1	green	E9/125 G.652.D OS2	7.6	67	115	1000	3000	3000	5000	0.275	by the metre
19342100DZ		FO Universal 1x6	Dca-s2,d1,a1	6	1	yellow	E9/125 G.652.D OS2	7.6	67	115	1000	3000	3000	5000	0.275	by the metre
19011200DZ		FO Universal 1x6	Dca-s2,d1,a1	6	1	green	G50/125 OM3	7.6	67	115	1000	3000	3000	5000	0.275	by the metre
19342500DZ		FO Universal 1x6	Dca-s2,d1,a1	6	1	turquoise	G50/125 OM3	7.6	67	115	1000	3000	3000	5000	0.275	by the metre
19336000DZ		FO Universal 1x6	Dca-s2,d1,a1	6	1	green	G50/125 OM4	7.6	67	115	1000	3000	3000	5000	0.275	by the metre
19342900DZ		FO Universal 1x6	Dca-s2,d1,a1	6	1	heather violet	G50/125 OM4	7.6	67	115	1000	3000	3000	5000	0.275	by the metre
19020500DZ		FO Universal 1x8	Dca-s2,d1,a1	8	1	green	E9/125 G.652.D OS2	7.6	67	115	1000	3000	3000	5000	0.275	by the metre
18595900DZ		FO Universal 1x8	Dca-s2,d1,a1	8	1	green	G50/125 OM3	7.6	67	115	1000	3000	3000	5000	0.275	by the metre
18736300DZ		FO Universal 1x8	Dca-s2,d1,a1	8	1	green	G50/125 OM4	7.6	67	115	1000	3000	3000	5000	0.275	by the metre
19442200DZ		FO Universal 1x8	Dca-s2,d1,a1	8	1	heather violet	G50/125 OM4	7.6	67	115	1000	3000	3000	5000	0.275	by the metre
19007700DZ		FO Universal 1x12	Dca-s2,d1,a1	12	1	green	E9/125 G.652.D OS2	7.6	67	115	1000	3000	3000	5000	0.275	by the metre
19342200DZ		FO Universal 1x12	Dca-s2,d1,a1	12	1	yellow	E9/125 G.652.D OS2	7.6	67	115	1000	3000	3000	5000	0.275	by the metre
19331400DZ		FO Universal 1x12	Dca-s2,d1,a1	12	1	green	E9/125 G.652.D BLO	7.6	67	115	1000	3000	3000	5000	0.275	by the metre
18635000DZ		FO Universal 1x12	Dca-s2,d1,a1	12	1	green	G50/125 OM3	7.6	67	115	1000	3000	3000	5000	0.275	by the metre
19342600DZ		FO Universal 1x12	Dca-s2,d1,a1	12	1	turquoise	G50/125 OM3	7.6	67	115	1000	3000	3000	5000	0.275	by the metre
19125100DZ		FO Universal 1x12	Dca-s2,d1,a1	12	1	green	G50/125 OM4	7.6	67	115	1000	3000	3000	5000	0.275	by the metre
19343000DZ		FO Universal 1x12	Dca-s2,d1,a1	12	1	heather violet	G50/125 OM4	7.6	67	115	1000	3000	3000	5000	0.275	by the metre
19296900DZ		FO Universal 1x12	Dca-s2,d1,a1	12	1	green	G50/125 OM4	8.2	72	125	1500	3500	3000	5000	0.336	by the metre
18735400DZ		FO Universal 1x24	Dca-s2,d1,a1	24	1	green	E9/125 G.652.D OS2	8.2	72	125	1500	3500	3000	5000	0.336	by the metre
19333700DZ		FO Universal 1x24	Dca-s2,d1,a1	24	1	green	E9/125 G.652.D BLO	8.2	72	125	1500	3500	3000	5000	0.336	by the metre

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19175500DZ		FO Universal 1x24	Dca-s2,d1,a1	24	1	green	G50/125 OM3	8.2	72	125	1500	3500	3000	5000	0.336	by the metre
19271300DZ		FO Universal 1x24	Dca-s2,d1,a1	24	1	green	G50/125 OM4	8.2	72	125	1500	3500	3000	5000	0.336	by the metre
19007100DZ		FO Universal 2x12	Dca-s2,d1,a1	24	2	green	E9/125 G.652.D OS2	9.5	84	140	1500	4000	3000	5000	0.43	by the metre
19342300DZ		FO Universal 2x12	Dca-s2,d1,a1	24	2	yellow	E9/125 G.652.D OS2	9.5	84	140	1500	4000	3000	5000	0.43	by the metre
18643200DZ		FO Universal 2x12	Dca-s2,d1,a1	24	2	green	G50/125 OM3	9.5	84	140	1500	4000	3000	5000	0.43	by the metre
19342700DZ		FO Universal 2x12	Dca-s2,d1,a1	24	2	turquoise	G50/125 OM3	9.5	84	140	1500	4000	3000	5000	0.43	by the metre
19125200DZ		FO Universal 2x12	Dca-s2,d1,a1	24	2	green	G50/125 OM4	9.5	84	140	1500	4000	3000	5000	0.43	by the metre
19343100DZ		FO Universal 2x12	Dca-s2,d1,a1	24	2	heather violet	G50/125 OM4	9.5	84	140	1500	4000	3000	5000	0.43	by the metre
19013700DZ		FO Universal Hybrid 1x12 E9 +1x12 G50*	Dca-s2,d1,a1	24	2	green	E9/125 G.652.D OS2 + G50/125 OM3	9.5	84	140	1500	4000	3000	5000	0.43	by the metre
19012400DZ		FO Universal Hybrid 1x12 E9 +1x12 G50*	Dca-s2,d1,a1	24	2	green	E9/125 G.652.D OS2 + G50/125 OM4	9.5	84	140	1500	4000	3000	5000	0.43	by the metre

* 12 fibres E9 in red / 12 fibres G50 in green loose tube