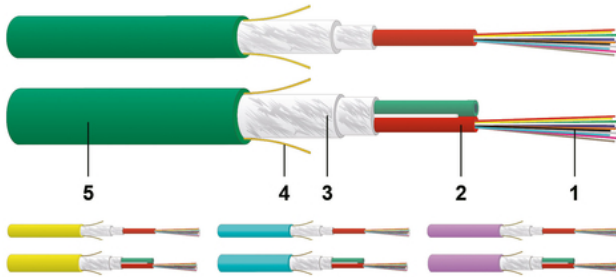


# FO Universal ZGGFR / U-DQ(ZN)BH

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 <sub>ca</sub>
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