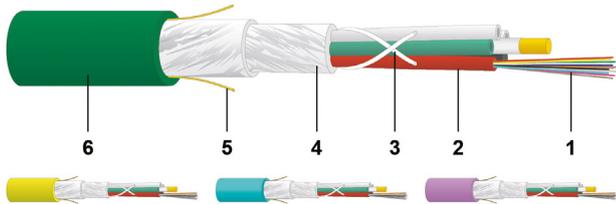


FO Universal wbGGFR / U-DQ(ZN)BH

up to 144 fibres, Euroclass Eca

metal-free, dry interstices, rodent protection,
 flame retardant, longitudinally watertight
 in accordance with IEC 60332-1-2 and IEC 60332-3-24



- 1 ≤ 12 fibres
- 2 Loose tube
- 3 Swelling tape
- 4 Glass armour
- 5 Ripcord
- 6 FR/LSOH sheath



Description

Robust, metal-free fibre optic outdoor and indoor cable with stranded loose tubes.
 High crush resistance for high transmission reliability.
 Easy to handle 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/LSOH 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.

Construction

Outer sheath material	FRNC/LSZH
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General properties

Maximum number of fibres	144
Installation temperature	-10 °C - +50 °C
Storage temperature	-25 °C - +70 °C
Operating temperature	-25 °C - +70 °C
Imprint	DATWYLER «cable type» «Datwyler designation» «DIN designation» «no. of fibres» «fibre type» «add. text» «batch no.» «meter marks»
Field of application	Universal

Standards

Tensile performance	IEC 60794-1-21 E1
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
Temperature cycling	IEC 60794-1-22 F1
Water penetration	IEC 60794-1-22 F5
Reaction to fire	EN 13501-6
Euroclass	E _{ca}
Smoke density	IEC 61034-1/-2, EN 61034-1/-2, VDE 0482-1034-1/-2
Zero halogen no corrosive gases	IEC 60754-1/-2, EN 60754-1/-2, VDE 0482-754-1/-2
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
UV resistance	EN 50289-4-17

Versions

Material number	Product	Reaction to fire	Outer sheath colour	Fibre type	Fibre category	Outer sheath diameter [mm]	Bending radius [mm]	Weight [kg/km]	Tensile load short term [N]	Tensile load continuous [N]	Crush resistance short term [N]	Crush resistance continuous [N]	Fire load [kWh/m]	Packing unit	GTIN / EAN
19261300EZ	FO Universal wbGGFR 2x12	Eca	green	E9/125 G.652.D OS2	OS2	11.4	175	149	9,000	5,000	5,000	3,000	0.616	by the metre	
19020700EZ	FO Universal wbGGFR 3x12	Eca	green	E9/125 G.652.D OS2	OS2	11.4	175	149	9,000	5,000	5,000	3,000	0.616	by the metre	
19267800EZ	FO Universal wbGGFR 3x12	Eca	green	G50/125 OM4	OM4	11.4	175	149	9,000	5,000	5,000	3,000	0.616	by the metre	
19020800EZ	FO Universal wbGGFR 4x12	Eca	green	E9/125 G.652.D OS2	OS2	11.4	175	149	9,000	5,000	5,000	3,000	0.616	by the metre	
19342400EZ	FO Universal wbGGFR 4x12	Eca	yellow	E9/125 G.652.D OS2	OS2	11.4	175	149	9,000	5,000	5,000	3,000	0.616	by the metre	
19607800EZ	FO Universal wbGGFR 4x12	Eca	green	E9/125 G.652.D BLO	OS2	11.4	175	149	9,000	5,000	5,000	3,000	0.616	by the metre	
18648600EZ	FO Universal wbGGFR 4x12	Eca	green	G50/125 OM3	OM3	11.4	175	149	9,000	5,000	5,000	3,000	0.616	by the metre	
19342800EZ	FO Universal wbGGFR 4x12	Eca	turquoise	G50/125 OM3	OM3	11.4	175	149	9,000	5,000	5,000	3,000	0.616	by the metre	
19127800EZ	FO Universal wbGGFR 4x12	Eca	green	G50/125 OM4	OM4	11.4	175	149	9,000	5,000	5,000	3,000	0.616	by the metre	
19343200EZ	FO Universal wbGGFR 4x12	Eca	heather violet	G50/125 OM4	OM4	11.4	175	149	9,000	5,000	5,000	3,000	0.616	by the metre	

Material number	Product	Reaction to fire	Outer sheath colour	Fibre type	Fibre category	Outer sheath diameter [mm]	Bending radius [mm]	Weight [kg/km]	Tensile load short term [N]	Tensile load continuous [N]	Crush resistance short term [N]	Crush resistance continuous [N]	Fire load [kWh/m]	Packing unit	GTIN / EAN
19020900EZ	FO Universal wbGGFR 5x12	Eca	green	E9/125 G.652.D OS2	OS2	11.4	175	149	9,000	5,000	5,000	3,000	0.616	by the metre	
18664200EZ	FO Universal wbGGFR 5x12	Eca	green	G50/125 OM3	OM3	11.4	175	149	9,000	5,000	5,000	3,000	0.616	by the metre	
19021000EZ	FO Universal wbGGFR 6x12	Eca	green	E9/125 G.652.D OS2	OS2	12.2	185	165	9,000	5,000	5,000	3,000	0.681	by the metre	
18653900EZ	FO Universal wbGGFR 6x12	Eca	green	G50/125 OM3	OM3	12.2	185	165	9,000	5,000	5,000	3,000	0.681	by the metre	
18674700EZ	FO Universal wbGGFR 8x12	Eca	green	E9/125 G.652.D OS2	OS2	13.5	205	186	9,000	5,000	5,000	3,000	0.808	by the metre	
19704900EZ	FO Universal wbGGFR 8x12	Eca	green	E9/125 G.652.D BLO	OS2	13.5	205	186	9,000	5,000	5,000	3,000	0.808	by the metre	
18654000EZ	FO Universal wbGGFR 8x12	Eca	green	G50/125 OM3	OM3	13.5	205	186	9,000	5,000	5,000	3,000	0.808	by the metre	
19271400EZ	FO Universal wbGGFR 8x12	Eca	green	G50/125 OM4	OM4	13.5	205	186	9,000	5,000	5,000	3,000	0.808	by the metre	
19449900EZ	FO Universal wbGGFR 8x12	Eca	heather violet	G50/125 OM4	OM4	13.5	205	186	9,000	5,000	5,000	3,000	0.808	by the metre	
19021100EZ	FO Universal wbGGFR 10x12	Eca	green	E9/125 G.652.D OS2	OS2	14.8	225	219	9,000	5,000	5,000	3,000	0.936	by the metre	
18653600EZ	FO Universal wbGGFR 10x12	Eca	green	G50/125 OM3	OM3	14.8	225	219	9,000	5,000	5,000	3,000	0.936	by the metre	
19021200EZ	FO Universal wbGGFR 12x12	Eca	green	E9/125 G.652.D OS2	OS2	16.3	245	272	9,000	5,000	5,000	3,000	1.075	by the metre	
19704800EZ	FO Universal wbGGFR 12x12	Eca	green	E9/125 G.652.D BLO	OS2	16.3	245	272	9,000	5,000	5,000	3,000	1.075	by the metre	
19171000EZ	FO Universal wbGGFR 12x12	Eca	green	G50/125 OM3	OM3	16.3	245	272	9,000	5,000	5,000	3,000	1.075	by the metre	
19271500EZ	FO Universal wbGGFR 12x12	Eca	green	G50/125 OM4	OM4	16.3	245	272	9,000	5,000	5,000	3,000	1.075	by the metre	