

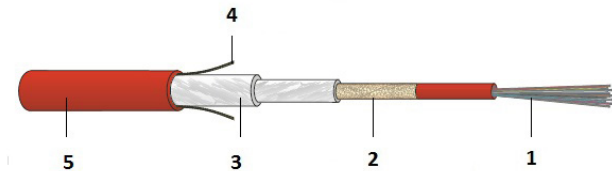
## FO Universal ZGGFR Safety / U-DQ(ZN)BH

Safety cable E30\*, up to 12 fibres

metal-free, water resistant, rodent protection,

in accordance with IEC 60332-1-2 and IEC 60332-3-24

30 minutes System Circuit Integrity\* with reference to DIN 4102-12



1 ≤ 12 fibres

2 Flame retardant protective coating

3 Glass armour

4 Ripcord

5 FR/LSOH sheath



### Description

Metal-free fibre optic safety cable with one central loose tube, up to 12 fibres.

The optimal combination of flame retardant fibre coating and flame-inhibiting stabilizing elements ensures enhanced functional integrity (System Circuit Integrity\*) in case of fire for 30 minutes (transmission of audio, video and 1Gbit/s signals approved by a certified test report).

### Application

Safety applications in tunnels, underground railways, banks, insurance companies, large-scale industry.

LAN backbone.

Indoor and outdoor cabling.

Can also be installed in cable platforms, trays, ducts and vertical shafts (without System Circuit Integrity\*).

Can be spliced in FO distributors.

### Construction

Outer sheath material	FRNC/LSZH
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### General Properties

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

## 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
Water penetration	IEC 60794-1-22 F5
Reaction to fire (Euroclasses)	not classified
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
Smoke Density	IEC 61034-1/-2, EN 61034-1/-2, VDE 0482-1034-1/-2
UV resistance	EN 50289-4-17

## Note

\* System Circuit Integrity is dependent on installation method. Certified clamps, ducts, conduits, etc. are mandatory.

## Versions

Material number	Product	Outer sheath colour	Fibre type	Outer sheath diameter [mm]	Bending radius [mm]	Weight [kg/km]	Tensile load [N]	Crush resistance short term [N]	Crush resistance continuous [N]	Fire load [kWh/m]	Packing unit
187288	FO Universal Safety 1x4	red	E9/125 G.652.D OS2	7.8	120	75	1,000	5,000	2,000	0.301	by the metre
190604	FO Universal Safety 1x4	red	G50/125 OM3	7.8	120	75	1,000	5,000	2,000	0.301	by the metre
193447	FO Universal Safety 1x4	red	G50/125 OM4	7.8	120	75	1,000	5,000	2,000	0.301	by the metre
191867	FO Universal Safety 1x6	red	E9/125 G.652.D OS2	7.8	120	75	1,000	5,000	2,000	0.301	by the metre
191851	FO Universal Safety 1x6	red	G50/125 OM3	7.8	120	75	1,000	5,000	2,000	0.301	by the metre
193448	FO Universal Safety 1x6	red	G50/125 OM4	7.8	120	75	1,000	5,000	2,000	0.301	by the metre
196130	FO Universal Safety 1x8	red	E9/125 G.652.D OS2	7.8	120	75	1,000	5,000	2,000	0.301	by the metre
196120	FO Universal Safety 1x8	red	G50/125 OM3	7.8	120	75	1,000	5,000	2,000	0.301	by the metre
193449	FO Universal Safety 1x8	red	G50/125 OM4	7.8	120	75	1,000	5,000	2,000	0.301	by the metre
190719	FO Universal Safety 1x12	red	E9/125 G.652.D OS2	7.8	120	75	1,000	5,000	2,000	0.301	by the metre
191796	FO Universal Safety 1x12	red	G50/125 OM3	7.8	120	75	1,000	5,000	2,000	0.301	by the metre
193450	FO Universal Safety 1x12	red	G50/125 OM4	7.8	120	75	1,000	5,000	2,000	0.301	by the metre