

WS-B/K1 Water detector

For the detection of penetration by water and chemical mixtures in connecting sleeves by means of an intermediately spliced fibre ring ITU-T G.652.D

Monitoring option:
Dark Fiber Test (inactive)
for optical fibres G.657.A1/A2



General

Water detectors are used to detect leaks. They serve to prevent transmission breakdown in telecommunication facilities, seepage from service or waste water in the earth or ground water pollution due to leakage of chemical substances.

If a leak occurs, the water detectors cause measurable attenuation changes as a result of manufacturer-dependent macrobending loss in the fibre.

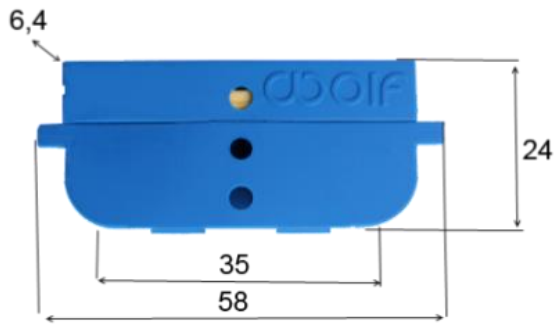
Various types of water detectors are available, in accordance with market needs

→ See Table WO44 part 0: Water detector delivery programme.


Benefits of water detectors

1. Reliable detection of leakage by means of the intermediately spliced fibre ring
2. Economical monitoring method
3. Can be simply and quickly retrofitted at any point
4. Pinpointing of leakage points over distances of more than 80 km, for short or long leak intervals
5. No interruption of operation: in operation the water detector fulfils the requirements of standards DIN EN 60793-2-50 and IEC 86A/1343/CD:2010
6. No activation for a relative humidity under 70%
7. Prevents fibre breakage. Savings on costs due to repairs and network breakdown.
8. Depending on the type of monitoring system, star or ring-shaped monitoring of an optical fibre route can be carried out from a central installation by means of optical switches.

Art. No. 44.1 WS-B/K1 for glueing into all splice cassette systems



Applications of the “blue” water detector

Art. No.	Fibre types ITU-T	Fibre No.	Attenuation change $\Delta\alpha$ [dB] in area [nm]	
44.1 WS-B/K1 	G.657.A1/A2 G.657.B2/B3 with intermediately spliced fibre ring G.652.D	3 (R1)	0.3 - 0.7	0.7 - 1.4
		4 (R1)	0.3 - 0.7	0.7 - 1.4
		5 (R7)	0.7 - 1.2	1.3 - 2.5
		6 (R7)	0.7 - 1.2	1.3 - 2.5
		12 (R1)	0.3 - 0.7	0.7 - 1.4
		13 (R1)	0.3 - 0.7	0.7 - 1.4

Fibre No.	Product name	Manufacturer No./ name of manufacturer	Comment
1		10	
2		10	
3		10	
4		10	
5	DrakaElite BendBright-Elite Fiber	12	
6	BendBright-XS Single-Mode Optical Fiber	12	
7	BendBright Single-Mode Optical Fiber	12	
12	z-wave-S™ LWP Single Mode Bend Insensitive Fiber	11	
13	z-wave-S™ LWP Single Mode Bend Insensitive Fiber	11	

Note: For the qualification unnamed fibre manufacturers, please contact our testing lab:
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Manufacturer

Your local partner

National sales



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