

FISCHER **RUGGED FLASH DRIVES**

**SAFE DATA STORAGE
& TRANSPORTATION
IN HARSH ENVIRONMENTS**

32_{GB} | 256_{GB}



SECURE & UNBREAKABLE

- Fischer Connectors specific interface
- Discrete design
- IP68 2m/24h
- Shock, vibration and corrosion resistant

PORTABLE

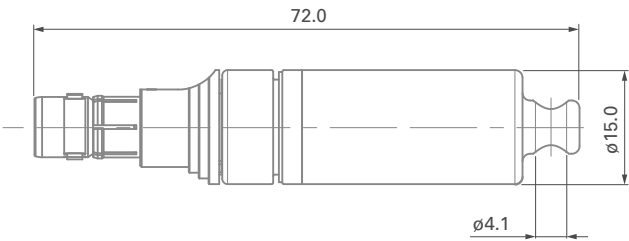
- Miniature
- Lightweight
- Built-in lanyard hole



CONFIGURATIONS (in millimeters – images are for reference only)

ULTIMATE

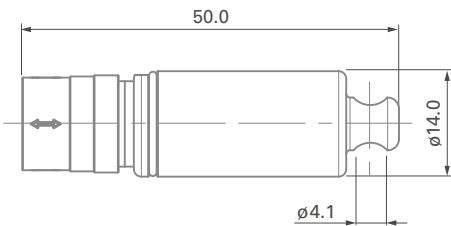
Weight: 42 g



Memory capacity	NAND technology	USB protocol	Read speed	Write speed	Locking system	Part number	Designation
32 GB	3D TLC	2.0	Up to 30 MB/s*	Up to 17 MB/s*	Push-pull	142693	FD USB2 0032-3T UP01L08 M004 AN1

MINIMAX

Weight: 27 g



Memory capacity	NAND technology	USB protocol	Read speed	Write speed	Locking system	Part number	Designation
256 GB	3D TLC	3.1 Gen 1	Up to 220 MB/s*	Up to 120 MB/s*	Push-pull	142698	FD USB3 0256-3T MP11L08 H009 AN1
					Screw	142700	FD USB3 0256-3T MP11S08 H009 AN1

FLASH DRIVE PERFORMANCE

		UltiMate	MiniMax		Details
Part number		142693	142698	142700	
Memory type		3D TLC NAND			
Memory capacity		32 GB	256 GB		
USB protocol		USB 2.0	USB 3.1 Gen 1		
Typical maximum speed	Read	Up to 30 MB/s*	Up to 220 MB/s*		Technology not suitable to be used as boot drive*
	Write	Up to 17 MB/s*	Up to 120 MB/s*		
Advanced flash management		Wear leveling Bad block management ECC			
Supported OS		Windows XP or later MAC OS X or later (USB 1.1 speed) MAC OS 10.2.8 or later (USB 2.0 speed) MAC OS 10.8 or later (USB 3.2 Gen 1 speed – for MiniMax variants only) Linux Kernel version 2.4.0 or later (USB 1.1 speed) Linux Kernel version 2.4.10 or later (USB 1.1 speed) Linux Kernel version 2.6.31 or later (USB 3.2 Gen 1 speed – for MiniMax variants only)			
Mean time between failure		4,000,000 hours			Predicted value*
Terabytes Written (TBW)	Sequential write	369 TB	2,953 TB		Calculated value at +30 °C
	Mix write	92 TB	738 TB		
	Random write	24 TB	169 TB		

*Application dependent

ENVIRONMENTAL PERFORMANCE

	UltiMate	MiniMax		
Part number	142693	142698	142700	Standards
Locking system	Push-pull		Screw	
Mating cycles	10,000	5,000		IEC 60512-9-1
Sealing	IP68 2m/24h before and after thermal cycles in mated and unmated conditions			IEC 60529 MIL-STD-810 Method 512.6
Vibration	10 to 500 Hz (1.5 mm or 10 g), 12 sweep cycles per axis, 15 minutes per 10-500-10 Hz sweep cycle, no discontinuity >1 μs, no visible signs of damage		10 to 2000 Hz (1.5 mm or 15 g), 12 sweep cycles per axis, 20 minutes per 10-2000-10 Hz sweep cycle, no discontinuity >1 μs, no visible signs of damage	MIL-STD-202 Method 204 Condition A MIL-STD-202 Method 204 Condition B
Corrosion	Salt mist, 1,000 hours, 5% salt solution, 35 °C (mated or with cap when unmated)			IEC 60068-2-11 Test Ka MIL-STD-202 Method 101 condition A EIA-364-26
Shock	5 drop tests from 1.5 m height			MIL-STD-810 Method 516.8 Procedure IV
Operating temperatures	0 °C to +70 °C			MIL-STD-810 Method 501.7 and 502.7
Storage temperatures	-25 °C to +85 °C			IEC 60068-2-14Nb MIL-STD-810 Method 501.7 and 502.7

MATERIAL & SURFACE TREATMENTS*

Metal parts	Material		Finish	
	ISO designation	Standard	Designation	Standard
Housing	Brass CuZn39Pb3	CW614N UNS C 38500	Anthracite Nickel	SAE-AMS-QQ-N-290B SAE-AMS-2404 G SAE-AMS-2460

*For more information on connector interface, refer to UltiMate and MiniMax Technical Specifications.

CONTACT CONFIGURATIONS

USB signal	UltiMate pin number	MiniMax pin number
VCC (power)	2*	4*
D-	1	1
D+	4	3
GND	3*	9*
SSRX- (SDP1-**)		8
SSRX+ (SDP1+**)		7
GND_DRAIN		2
SSTX- (SDP2-**)		6
SSTX+ (SDP2+**)		5

*First mate last break contacts

**SDP = Shielded Differential Pair (used for USB 3.0)

SOFT CAPS



All Fischer Rugged Flash Drives are equipped as standard with a protective soft cap.

ACCESSORIES



Optional adapters are available to connect Fischer Rugged Flash Drives to standard USB ports.

	Locking system	Part number
UltiMate	Push-pull	119702
MiniMax	Push-pull	132737
MiniMax	Screw	132739

COMPATIBLE INTERFACES*

UltiMate					MiniMax				
UR01		UR02		UR03		MR11 – Push-pull		MR11 – Screw	
									
Designation		Designation		Designation		Designation		Designation	
UR01W08 F004S BK1 E1AB		UR02W08 F004S BK1 E1AB		UR03W08 F004S BK1 E1NB		MR11WL08 0009 AN1 E1AP		MR11WS08 0009 AN1 E1AP	
Part number	119663	Part number	125490	Part number	124932	Part number	132907	Part number	132910

*Examples of compatible brass receptacles with solder interface. For other variants, contact your Fischer Connectors sales representative.

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