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

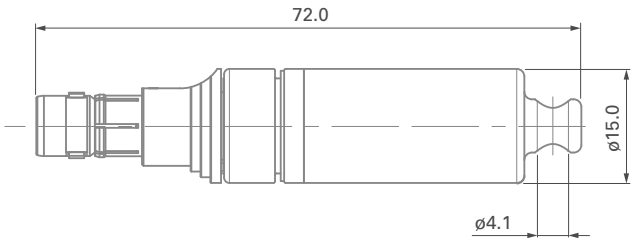
fischer® CONNECTORS

Part of Conextivity Group

CONFIGURATIONS (in millimeters – images are for reference only)

ULTIMATE

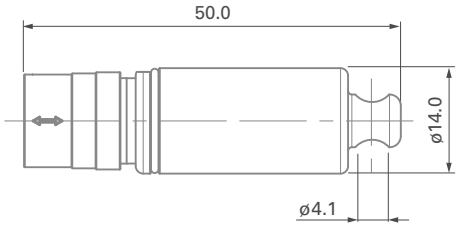
Weight: 42 g



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

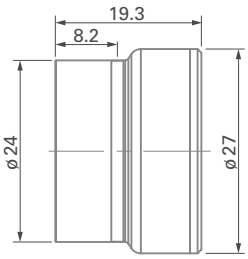
Weight: 27 g



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

FREEDOM

Weight: 23 g



Memory capacity	NAND technology	USB protocol	Read speed	Write speed	Locking system	Part number	Designation
32 GB	3D TLC	USB 2.0	Up to 30 MB/s*	Up to 17 MB/s*	Quick-release	134302	FADQM14 P007 AN360 RFD 032
256 GB						135435	FADQM14 P007 AN360 RFD 256

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

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

ENVIRONMENTAL PERFORMANCE

	UltiMate	MiniMax		Freedom		
Part number	142693	142698	142700	134302	135435	**Standards**
Locking system	Push-pull		Screw	Quick-release		
Mating cycles	10,000	5,000		10,000 5,000 full rotations		IEC 60512-9-1
Sealing	IP68 2m/24h before and after thermal cycles in mated and unmated conditions			Connectors in mated condition or with cap: IP68 20m/24h Plug without cap : IP67 0.2m 30min		• 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					MIL-STD-202 Method 204 Condition A
			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 B
				9.26 G rms		MIL-STD-202 Method 214A Condition I
Corrosion	Salt mist, 1,000 hours, 5% salt solution, 35 °C (mated or with cap when unmated)			Salt mist 1,000 h Connectors in mated condition		• 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			3 drop tests from 2 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

FLASH DRIVE PERFORMANCE

		UltiMate	MiniMax		Freedom		Details
Part number		142693	142698	142700	134302	135435	
Memory type		3D TLC NAND					
Memory capacity		32 GB	256 GB		32 GB	256 GB	
USB protocol		USB 2.0	USB 3.1 Gen 1		USB 2.0		
Typical maximum speed	**Read**	Up to 30 MB/s*	Up to 220 MB/s*		Up to 30 MB/s*		Technology not suitable to be used as boot drive*
	Write	Up to 17 MB/s*	Up to 120 MB/s*		Up to 17 MB/s*		
Advanced flash management		Wear leveling | Bad block management | ECC					
Supported OS		**Windows:** XP or later **Mac OS versions:** X or later (USB 1.1 speed), 10.2.8 or later (USB 2.0 speed), 10.8 or later (USB 3.2 Gen 1 speed – for MiniMax variants only) **Linux Kernel versions**: 2.4.0 or later (USB 1.1 speed), 2.4.10 or later (USB 1.1 speed), 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		369 TB		Calculated value at +30 °C
	Mix write	92 TB	738 TB		92 TB		
	Random write	24 TB	169 TB		24 TB		

*Application dependent

CONTACT CONFIGURATIONS

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

*First mate last break contacts **SDP = Shielded Differential Pair (used for USB 3.0)

ACCESSORIES

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

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

LOCKING SYSTEMS

	Locking system	Part number
UltiMate	Push-pull	119702
MiniMax	Push-pull	132737
MiniMax	Screw	132739
Freedom	Quick-release	135665

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

Freedom			
FLR-01		**FLR-50**	
			
Designation		**Designation**	
FLR01WZZ14 T007P AN360 V3AC		CA S 07 FR50Z14B B/OE BRA PUR TN	
Part number	132506	**Part number**	134999

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

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