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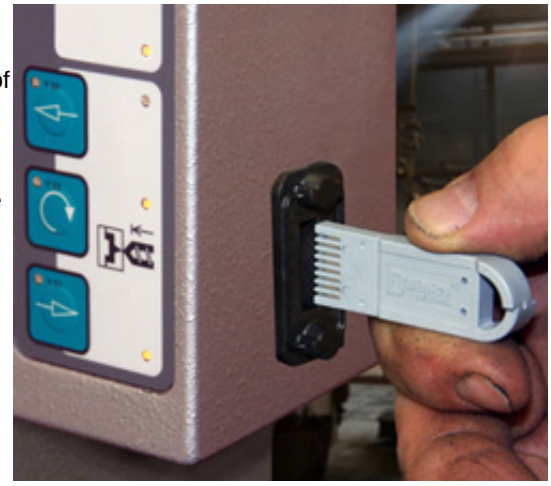
Datakey – New portable memory is more rugged and secure than USB drives / SD cards



Latest from Datakey Electronics is the new RUGGEDrive line of portable memory solutions, which offers the data storage and transfer capabilities of consumer-grade USB flash drives and SD cards in a more reliable and secure package. The 'unique' form factor and rugged design of the RUGGEDrive line provide embedded system designers with a base level of security and reliable harsh-environment operation that consumer memory products fail to deliver, says the company.

RUGGEDrive memory tokens are constructed using a solid over-moulding process. A rugged, composite plastic protects internal components and allows use in harsh environments. Unlike consumer memory products, RUGGEDrive tokens can withstand conditions typical in demanding military, industrial, commercial and medical settings, such as extreme temperatures, rough use, sterilization, chemical exposure, static electricity, dust, dirt, moisture, shock and vibration. The use of industry-standard protocols (USB 2.0, SDHC/SPI) allows the RUGGEDrive memory tokens to be easily integrated into embedded controllers, single-board computers and industrial PCs.

The memory tokens only interface with Datakey Electronics' mating receptacles, which provides a base level of security and helps overcome the drawbacks of USB flash drive and SD card connectors. The unique, physical connection between the receptacle and token ensures that data on tokens cannot be readily transferred to unauthorized PCs that lack RUGGEDrive receptacles. Likewise, RUGGEDrive receptacles help protect embedded devices from viruses and other malicious files, as consumer memory devices have nowhere to plug in. Additionally, RUGGEDrive receptacles are rated for 50,000 cycles and can withstand use in harsh environments, whereas most consumer-grade USB and SD connectors are only rated for 1,500 and 10,000 cycles, respectively, and are not intended for harsh-environment operation.

"The RUGGEDrive line departs from the limitations of the USB and SD form factors to deliver a significantly more rugged,

portable memory solution," said Brian Mishuk, business development engineer, Datakey Electronics. "Consumer memory devices, like microSD cards, are designed for use in small consumer electronic devices, such as cameras and mobile phones, where ruggedness is abandoned in exchange for small size. Our RUGGEDrive line of memory products puts the basic functionality of USB flash drives and SD cards into a more durable, secure package that better meets the needs of demanding OEM applications."

The RUGGEDrive line features two families of memory devices. The UFX memory token provides USB flash drive functionality, and the DFX memory token provides SD card functionality. Both tokens come standard with 4GB of non-volatile memory, with larger capacities (up to 32GB) available. RUGGEDrive receptacles feature multiple mounting options, including through-hole, surface-mount and panel-mount versions. Panel-mount receptacles are available in IP65 ("splash-proof"), IP67 (immersion) and EMI reduction versions to meet the needs of harsh environment applications, says the company.

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