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IEEE Standard Dictionary of Electrical and Electronics Terms

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Measures). *Note:* When the mole is used, the elementary entities must be specified and may be atoms, molecules, ions, electrons, other particles, or specified groups of such particles. 21

momentary current (power switchgear). The current flowing in a device, an assembly, or a bus at the major peak of the maximum cycle as determined from the envelope of the current wave. *Note:* The current is expressed as the root-mean-square (rms) value, including the direct-current component, and may be determined by the method shown in American National Standard Methods for Determining the Values of a Sinusoidal Current Wave and Normal-Frequency Recovery Voltage for AC High-Voltage Circuit Breakers, ANSI/IEEE C37.09-1979. 103

momentary interruption. *See:* **interruption, momentary.**

momentary rating (X-ray) (National Electrical Code). A rating based on an operating interval that does not exceed five seconds. 256

monadic (mathematics of computing). Pertaining to an operation involving a single operand. *See:* **dyadic.** 564

monitor (token ring access method). That function that recovers from various error situations. It is contained in each ring station; however, only the monitor in one of the stations on a ring is the active monitor at any point in time. The monitor function in all other stations on the ring is in standby mode. 472

monitor hazard current (health care facilities). The hazard current of the line isolation monitor alone. *See:* **hazard current.** 192

monitoring (1)(data transmission). In communication, an observation of the characteristics of transmitted signals. 59

(2)(electric pipe heating systems). To check the operation and performance of an equipment or system by sampling the results of the operation. Monitoring with respect to electric pipe heating systems usually consists of checking system temperatures or operation of the heater circuits; voltage, current, etcetera. 448

monitoring relay (power switchgear). A relay which has as its function to verify that system or control-circuit conditions conform to prescribed limits. 103

monochromatic (1) (color) (television). Having spectral emission over an extremely small region of the visible spectrum. 18

(2) (fiber optics). Consisting of a single wavelength or color. In practice, radiation is never perfectly monochromatic but, at best, displays a narrow band of wavelengths. *See:* **coherent; line source; spectral width.** 433

monochromator (fiber optics). An instrument for isolating narrow portions of the spectrum. 433

monochrome (television). Having only one chromaticity, usually achromatic. 18

monochrome channel (television). Any path that is intended to carry the monochrome signal. 18

monochrome channel bandwidth (television). The bandwidth of the path intended to carry the monochrome signal. 18

monochrome signal (television). (1) **monochrome television.** A signal wave for controlling the luminance values in the picture. (2) **color television*** *See:* **luminance signal.** 18

*Deprecated

monochrome television. The electric transmission and reception of transient visual images in only one chromaticity, usually achromatic. *Note:* Also termed black-and-white television. 18

monochrome transmission (television). The transmission of a signal wave for controlling the luminance values in the picture, but not the chromaticity values. *Note:* Also termed black-and-white transmission. 18

monoclinic system (piezoelectricity). A monoclinic crystal has either a single axis of twofold symmetry or a single plane of reflection symmetry, or both. Either the twofold axis or the normal to the plane of symmetry (they are the same if both exist, and this direction is called the unique axis in any case) is taken as the b or Y axis. Of the two remaining axes, the smaller is the c axis. In class 2, $+Y$ is chosen so that d_{22} is positive; $+Z$ is chosen parallel to c (sense trivial), and $+X$ such that it forms a right-handed system with $+Z$ and $+Y$. In class m, $+Z$ is chosen so that d_{33} is *positive, and* $+X$ *so that* d_{11} is positive, and $+Y$ to form a right-handed system. *Note:* "Positive" and "negative" may be checked using a carbon-zinc flashlight battery. The carbon anode connection will have the same effect on meter deflection as the + end of the crystal axis upon *release* of compression. *See:* **crystal systems.** 371

monocular visual field (illuminating engineering). The field for a single eye. 167

monomode optical waveguide. *See:* **single mode optical waveguide.** 433

monopulse (radar). A radar technique in which information concerning the angular location of a source or target is obtained by comparison of signals received in two or more simultaneous antenna beams, as distinguished from techniques such as lobe switching or conical scanning in which the beams are generated sequentially. The simultaneity of the beams makes it possible to obtain a two-dimensional angle estimate from a single pulse (hence the name monopulse), although multiple pulses are usually employed to improve the accuracy of the estimate or to provide Doppler resolution. The monopulse principle can be used with continuous wave as well as pulsed radar. *Syn:* **simultaneous lobing.** 13

monostatic cross section (antennas). The scattering cross section in the direction toward the source. *Syn:* **back scattering cross section.** *See:* **bistatic cross section.** 111

monthly peak duration curve (power operations). A curve showing the total number of days within the month during which the net 60 min clock-hour integrated peak demand equals or exceeds the percent of monthly peak values shown. 516