

ENCLOSURE RATING REFERENCE GUIDE

NEMA RATINGS

National Electrical Manufacturers Association

Type Indicates:

- 1 General Purpose, Indoor** — To prevent accidental contact of personnel with the enclosed equipment in areas where unusual service conditions do not exist. Provide protection against falling dirt.
- 2 Drip-Proof, Indoor** — Similar to Type 1, but also protects against falling non-corrosive liquids and falling dirt. Drainage provisions provided.
- 3 Dust-Tight, Rain-Tight, Sleet-Resistant, Outdoor** — Protected against windblown dust and water.
- 3R Rainproof, Sleet-Resistant, Outdoor** — Protected against rain.
- 3S Dust-Tight, Rain-Tight and Sleet-Proof, Outdoor** — Protected against windblown dust and water, remains operable when covered by external ice or sleet. (Not protected against internal icing.)
- 4 Water-Tight and Dust-Tight, Indoor and Outdoor** — Protected against wind-blown dust and rain, splashing water, seepage water, falling or hose-directed water, and severe external condensation. Mountings are external to cavity.
- 4X Water-Tight, Dust-Tight, Indoor and Outdoor** — Same as Type 4 but also corrosion-resistant. Passes 200-hr. salt spray (fog) test.

IP RATINGS

Ingress Protection

Prefix	First #	— Solids
IP	0	— No Protection
IP	1	— Over 50mm
IP	2	— Over 12mm
IP	3	— Over 2.5mm
IP	4	— Over 1.0mm
IP	5	— Dust, limited ingress from all directions
IP	6	— Total protection against dust
Prefix	Second #	— Water
IP	0	— No Protection
IP	1	— Dripping
IP	2	— Dripping when tilted up to 15°
IP	3	— Spraying when tilted up to 60°
IP	4	— Splashing
IP	5	— Low pressure jets
IP	6	— Strong jets

NEC RATINGS for Federal Signal Products

National Electrical Code

Class	Group	Atmospheres Containing:	Division 1	Division 2
I	A	Acetylene		121X, 151XST, 191X, 191XL, 224XST, 224XST-HI, 225X, 225XL, 225XST, 27XST, 27XL, 300GCX, 300SMX, 302GCX, 304GCX, 310X-MV, 314GCX, 350WBX, 371DST, AM15XD2, AM300GCX, AM302GCX, FB2PSTX, SF-1011DT, SF-1011P, SF-1231X, SF-1235X, SF-1241X, SF-1245X
I	B	Butadiene, Ethylene Oxides, Hydrogen, manufactured gases containing more than 30% Hydrogen (by volume), or Propylene Oxide.	300X, 302X, 304X, 314X, AM300X, AM302X, MPEX, SSTX-MV, SSTX3-MV	121X, 151XST, 191X, 191XL, 224XST, 224XST-HI, 225X, 225XL, 225XST, 27XST, 27XL, 300GCX, 300SMX, 302GCX, 304GCX, 310X-MV, 314GCX, 350WBX, 371DST, AM15XD2, AM300GCX, AM302GCX, FB2PSTX, SF-1011DT, SF-1011P, SF-1231X, SF-1235X, SF-1241X, SF-1245X
I	C	Acetaldehyde, Cyclopropane, Diethyl Ether, Ethylene or Unsymmetrical Dimethyl Hydrazine (UDMH)	121X, 27XST, 27XL, 300X, 302X, 304X, 31X, 314X, 41X, 55X, AM300X, AM302X, AX, FB2PSTX, MPEX, SSTX-MV, SSTX3-MV	151XST, 191X, 191XL, 224XST, 224XST-HI, 225X, 225XL, 225XST, 300GCX, 300SMX, 302GCX, 304GCX, 310X-MV, 314GCX, 350WBX, 371DST, AM15XD2, AM300GCX, AM302GCX, SF-1011DT, SF-1011P, SF-1231X, SF-1235X, SF-1241X, SF-1245X
I	D	Acetone, Acrylonitrile, Ammonia, Benzene, Butane Butanol (Butyl Alcohol), Butanol (Secondary Butyl Alcohol), N-Butyl Acetate, Isobutyl Acetate, Ethane, Ethanol (Ethyl Alcohol), E Ethylene Dichloride, Gasoline, Heptanes, Hexanes, Isoprene Methane(Natural Gas), Methanol (Methyl Alcohol), Methyl Butanol(Isomyl Alcohol), Methyl Ethyl Ketone, Methyl Isobutyl Ketone, Methyl Propanol (Isobutyl Alcohol), Methyl Propanol (Certiary Butyl Alcohol), Petroleum Naphtha, Octanes, Pentanes, Pentanol (Amyl Alcohol), Propane, Propanol (Propyl Alcohol), Propanol (Isopropyl Alcohol), Propylene, Styrene, Toluene, Vinyl Acetate, Vinyl Chloride or Xylenes.	121X, 27XST, 27XL, 300X, 302X, 304X, 31X, 314X, 41X, 55X, AM300X, AM302X, AX, FB2PSTX, MPEX, SSTX-MV, SSTX3-MV	151XST, 191X, 191XL, 224XST, 224XST-HI, 225X, 225XL, 225XST, 300GCX, 300SMX, 302GCX, 304GCX, 310X-MV, 314GCX, 350WBX, 371DST, AM15XD2, AM300GCX, AM302GCX, SF-1011DT, SF-1011P, SF-1231X, SF-1235X, SF-1241X, SF-1245X
II	E	Metal Dust including Aluminum, Magnesium and their commercial alloys, and other metals of similar hazardous characteristics	121X, 151XST, 191X, 191XL, 27XST, 27XL, 31X, 41X, 55X, AX, FB2PSTX, MPEX	<i>Not a Division 2 group.</i>
II	F	Carbon Black, Charcoal, Coal or Coke Dust	121X, 151XST, 191X, 191XL, 27XST, 27XL, 31X, 41X, 55X, AX, FB2PSTX, MPEX	224XST, 224XST-HI, 225X, 225XL, 225XST, 300GCX, 300SMX, 302GCX, 304GCX, 310X-MV, 314GCX, 350WBX, 371DST, AM15XD2, AM300GCX, AM302GCX, SF-1231X, SF-1235X, SF-1241X, SF-1245X
II	G	Flour, Starch, Wood or Grain Dust	121X, 151XST, 191XL, 27XST, 27XL, 31X, 41X, 55X, AX, FB2PSTX, MPEX	224XST, 224XST-HI, 225X, 225XL, 225XST, 300GCX, 300SMX, 302GCX, 304GCX, 310X-MV, 314GCX, 350WBX, 371DST, AM15XD2, AM300GCX, AM302GCX, SF-1231X, SF-1235X, SF-1241X, SF-1245X
III		All models in bold type in Class I and II are also approved for use in Class III.		

NOTE: Any equipment approved for Division 1 may be used in Division 2 locations of the same group.