



Touch Comparison Chart

Touch Technology	Touch Resolution	Transmissivity	Operating Life (Touches on a single point)	Stylus Type	Durability/Resistance to Vandalism	Dust and Dirt Tolerance	Operating Temp. (°C)	NEMA Ratings, Moisture Resistance	Controller Options
4-Wire Resistive	4096x4096	>83%	>1 Million	No Limitations (non-sharp)	Sensor is vulnerable to scratches and abrasions, glass overlay can be broken	Not affected by dust and dirt	-10~+60	NEMA 12 NEMA 4	Separate, RS-232 or USB
5-Wire Resistive	4096x4096	>83%	35 Million	No Limitations (non-sharp)	Sensor is vulnerable to scratches and abrasions, although will continue to operate. Glass overlay can be broken.	Not affected by dust and dirt	-10~+60	NEMA 12 NEMA 4	Separate, RS-232 or USB
Infrared (IR)	4096x4096	92%~100%	No Limit	No Limitations	Not susceptible to scratches and abrasions, no overlay to break	Will operate with moderate dust and dirt	-41~+70	NEMA 12 NEMA 4	Integrated, RS-232 or USB
Capacitive	4096x4096	>90%	225 Million	Conductive only, unable to simultaneously detect gloved and un-gloved finger	Difficult to scratch, conductive layer is subject to wear, glass overlay is breakable	Will operate with moderate dust and dirt	-15~+70	NEMA 12 NEMA 4	Separate, RS-232
Ultra	4096x4096	84%	70 Million	No Limitations	Difficult to scratch, will however continue to operate even if deeply scored. Rear substrate can be broken by severe vandalism	Not affected by dust and dirt	-10~+70	NEMA 12 NEMA 4	Separate, RS-232 or USB
Surface Acoustic Wave (SAW)	4096x4096	>90%	50 Million	Requires soft energy absorbing stylus	Difficult to scratch, glass overlay is breakable	Will operate with moderate dust and dirt	-20~+50	NEMA 12	Separate, RS-232 or USB

NEMA 4: Touch can be sealed into customers front bezel or enclosure and will offer protection against falling dirt, rain, sleet, snow, windblown dust, splashing water, and hose directed water and will be un-damaged by the external formation of ice.

NEMA 12: Touch can be sealed into customers front bezel or enclosure and will offer protection against falling dirt, circulating dust, lint, fibres and against dripping and light splashing of liquids.