Comparison Chart of 3TX, 2TX & 4TX Transmitters
for pH, Ion Selective and Conductivity Measurements

Feature	3TX	4TX	2TX
Enclosure	Field use with optional secondary enclosure (IP65) or 35mm DIN-RAIL	IP65	IP65
Agency Approvals	CE	CE	CE
Power Operation	3-wire 24VDC or 115/230 VAC with power supply module option	115/230 VAC (Line Powered)	2-wire 24VDC (Loop Powered)
Scalable 0/4-20mA Output	Yes *	Yes	Yes
Number of 0/4-20mA Output	1 each	1 each	1 each
Trim for each 0/4-20mA	Yes	No	No
Maximum Inputs	6 each (ISE/pH/ORP/Conductivity)	1 each (ISE/pH/ORP/Cond)	1 each (ISE/pH/ORP/Cond)
Preamplifier Support for pH/ORP/ISE Sensors	Yes, with 3TX-pH-X or 3TX-ISE-X hardware version only (300 feet max)	Yes, Max 300 feet total cable length with preamp	Yes, Max 300 feet total cable length with preamp
Relay for Alarm/Control	Yes, with optional 3TX-REL alarm/relay module, 2 each	Yes, 4 each	No
Type of Relay Control	On/Off, Time Proportional & Variable Frequency, Selectable	On/Off Only	None (N/A)
Digital Output Options	None Standard, MODbus optional	RS485 (NOT Modbus)	None
Remote Monitoring/Datalog	Yes, with MODbus Option	No	No
Display	Small 3-digit LED	Large Screen LCD	Large Screen LCD
Interface	Toggle Select Modes with 3-buttons	Menu-Driven Software	Menu-Driven Software
Manual Entry of sensor slope(s) and offset	Yes, using P14 & P15 for 3TX-ISE and P16, P17 & P18 for 3TX-pH	No	No
Buffer Cal for slope & offset	Yes for both Slope & Offset	2-Point Calibration Only	2-Point Calibration Only
Process Offset to Agree with Grab Sample Analysis	Yes	No	No
ISE Ranges Supported	0.00-9.99, 00.0-99.9 or 0-999 ppm	No ISE Support	NO ISE Support
pH Compensation for ISE	Yes, with 3TX-TOT Module	No (N/A)	No (N/A)
pH Range Supported	0-14 (-2 to +16 with 3TX-pHE unit)	-2 to +16	-2 to +16
ORP Range Supported	-1000 to +1000 mV	-2500 to +2500 mV	-1000 to +1000 mV
Conductivity Cell Constant and Corresponding Maximum Range Supported	0.01/0-500μS, 0.1/0-5mS, 1.0/0-50mS, 2.0/0-100mS, 10.0/0-500mS *Other cell constants/ranges available*	No Conductivity Support	No Conductivity Support
TC Elements Supported	Pt100 or Pt1000 (Software Selectable)	Pt1000 or Balco 3K	Pt100 / Pt1000 / Balco 3K
Supported TC Range	0-210°C for pH & Conductivity, 0-150°C for ISE	-10 to +120 °C for pH	-10 to +120 °C for pH
Datalogging Supported	Yes with MODbus output option (via free Windows software) or with 3TX-DAT Module for Analog or Digital	NO (from 4-20mA Only), No Software for RS485 output (Documents Only)	NO (from 4-20mA Only)
Primary Advantages	* Modular, Cost Effective Design * Simple, stable and easy to use * 3 button LED toggle operation * Bright LED display * 35mm DIN rail mountable for integration with OEM enclosures * MODbus support available for digital data acquisition/control and free datalogging (with Windows App)	* Cost Effective for Panel Mounting (¼-DIN) * Cost Effective for simple On/Off local control needs * Supports sensors with and without preamps	* Cost Effective for Panel Mounting (¼-DIN) * Cost Effective for 2-wire loop-powered installations * Supports sensors with and without preamps

* Scaling limits for 0/4-20mA analog outputs are: for 3TX-pH is min 1 pH unit; for 3TX-ISE is min 20% of range selected (0-10, 0-100, 0-999 ppm); for 3TX-CON is min 10% of full range for that cell constant (MODbus digital scaling may differ from Analog)

Last Revised January 24, 2012