SECTION 230519 - METERS AND GAUGES FOR HVAC PIPING

PART 1-GENERAL

1.1   SECTION INCLUDES

        A.   Thermometers and fittings.

        B.   Pressure gauges and fittings.

1.2   SUBMITTALS

        A.   Submit shop drawings and product data per applicable Division I Specification.

        B.   Shop drawings shall include product data noting materials, sizes, and dimensions.

PART 2-PRODUCTS

2.1   MANFACTURERS

        A.   Trerice
        B.   Ashcroft
        C.   Weiss

2.2   COMPONENTS

        A.   Thermometers: 1-percent accuracy.

                1.   Glass type: Mercury filled 9- inch long industrial type.

                2.   Direct-Mounting Filled-System Dial Type: Vapor actuated, thermal bulb,
                        precision brass gear.

                3.   Remote-Reading, Filled-System Dial Type: Vapor actuated, thermal bulb,
                        precision brass gear.

                4.   Bimetal Dial Type: Direct mounting, bimetal coil.

                5.   Insertion Dial Type: Bimetal coil.

        B.   Pressure Gauges: Phosphor-bronze Bourdon-tube gages, 1-percent accuracy.

                1.   Vacuum Range: 30 inches Hg of vacuum to 15 psig of pressure.

                2.   Pressure Range: Two-times operating pressure.

PART 3-EXECUTION

3.1   INSTALLATION

      A.   Provide thermometers at the following locations:

            1.   Inlet and outlet chilled water connection to each chiller.

            2.   Inlet and outlet heating water connections to each boiler.

            3.   Heating water, and chilled water supply and return loop to and from the building if primary/secondary pumping is used or if a 3-way valve is used to reset the building heating water temperature.

            4.   At all coil connections at main air handling units.

            6.   As otherwise shown on drawings.

      B.   Provide pressure gauges at the following locations:

            1.   One pressure gauge with 2 independent needle valves piped to the suction and discharge piping of all pumps except coil recirculating pumps.

            2.   Inlet and outlet piping of each chiller.

            3.   Outlet piping of each boiler unless integral to the boiler.

            4.   Domestic cold- water fill connection to the HVAC hydronic loop downstream of the pressure reducing valve.

            5.   As otherwise shown on drawings.

<center>END OF SECTION 230519</center>