Flow rate in a diffuser system can be determined by utilizing Red Valve Company’s Series 40 Pressure Sensors in conjunction with Tideflex Check Valves. As indicated on the drawing, a Series 40 Pressure Sensor installed between the discharge nozzle and the Tideflex Diffuser Check Valve measures the discharge pressure of the effluent in the diffuser system. The signal is transmitted to the differential pressure transmitter monitor. The low pressure side of the differential pressure transmitter is connected to a 4" Series 40 Pressure Sensor to monitor the ocean or waterway head pressure (the back pressure on the diffuser valve).

A waterproof transmitter cable can be attached to the Diffuser Pipeline and transmit the signal from the various pick up points to the control panel. This system is very simple, self-contained, easy to install, and efficient.

Red Valve’s Diffuser Valves and Pressure Sensors are designed to meet our customer’s exact flow requirements and specific needs.