

Pressure sensor range, accuracy and alarm limits of PrismaFlex® Systems, Baxter, IL, USA

Access

Operating Range	–250 to +450 mmHg
Accuracy	Accuracy ± 15 mmHg
“Access Extremely Negative” Warning Limit	Warning alarm occurs Pressure in access pod equals warning limit. User controllable: –10 to –250 mmHg
Default	–250 mmHg 150 mmHg below operating point
Increment	5 mmHg
“Access Extremely Positive” Warning Limit	Warning alarm occurs Pressure in access pod equals warning limit. User controllable: +10 to +450 mmHg
Default	+300 mmHg
Increment	5 mmHg
“Check Access” Advisory Limit	Advisory alarm occurs When running with an operating point below –10 mmHg, this alarm occurs if access pressure is 50 mmHg or 70 mmHg (if blood flow > 200 ml/min) above or below its operating point, or if the pressure rises above 0 mmHg. When running with an operating point in the range between –10 mmHg and +20 mmHg, this alarm occurs if the access pressure is 50 mmHg or 70 mmHg (if blood flow > 200 ml/min) below its operating point, or if the access pressure is 10 mmHg above its operating point. When running with an operating point above +20 mmHg, this alarm occurs if the access pressure drops below +10 mmHg.

Return

Operating Range	–50 to +350 mmHg Accuracy ± 5 mmHg
Accuracy	± 5 mmHg
“Return Extremely Positive” Warning Limit	Warning alarm occurs User controllable; +15 to +350 mmHg Default: +350 mmHg Increment: 5 mmHg Pressure in return deaeration chamber equals warning limit.
“Check Return” Advisory Limit	Advisory alarm occurs This alarm occurs if return pressure is 50 mmHg (or 70 mmHg if blood flow > 200 ml/min) above its operating point.
“Return Pressure Dropping” Warning Limit	Warning alarm occurs Pressure in the return deaeration chamber is 50 mmHg (or 70 mmHg if blood flow > 200 ml/min) more negative than the established operating point.
“Return Disconnection” Warning Limit	Warning alarm occurs Pressure in the return deaeration chamber is lower than +10 mmHg and the established operating point is higher than +10 mmHg.

Effluent

Operating Range	–350 to +400 mmHg (CRRT) –350 to +400 mmHg (TPE)
Accuracy	± 15 mmHg

Filter

Operating Range	–50 to +450 mmHg
Accuracy	±15 mmHg
“Set Disconnection” Warning Limit	Warning alarm occurs Pressure in filter pod (immediately before the filter) is lower than +10 mmHg.
“Filter Extremely Positive” Warning Limit	Warning alarm occurs Pressure in filter pod (immediately before the filter) is ≥450 mmHg.
“Filter Is Clotting” Advisory Limits a) <i>Filter pressure drop</i> b) <i>TMP increase</i>	Advisory alarm occurs One or both limits are reached a) <i>User controllable; +10 to +100 mmHg greater than initial filter pressure drop Default: +100 mmHg Increment: 10 mmHg</i> b) <i>Service controllable; +50 to +100 mmHg greater than initial TMP Default: +100 mmHg Increment: 5 mmHg</i>
“Filter Clotted” Warning Limit	Warning alarm occurs Filter pressure drop is ≥ limit value fixed for the filter in use, or both the “Filter is Clotting” Advisory and the “TMP Excessive” Caution limits are reached.
“TMP Too High” Advisory Limit	Advisory alarm occurs User controllable; +70 to +350 mmHg Default: +350 mmHg Increment: 10 mmHg TMP equals user-set limit
“TMP Excessive” Caution Limit	Caution alarm occurs TMP > limit value fixed for the filter in use

Patient safety

Air Bubble Detector Macro air/foam detection	Warning alarm occurs The transducer receives one voltage decrease of nominal signal level, which corresponds to detecting a single bubble/foam of approximately 20 µl. Foam sensitivity was tested using bovine blood. Air was injected into the pre- filter blood line at a rate of 1 ml/ min creating foam in the post-filter blood circuit.
Blood Leak Detector Minimum blood leak detection	Warning alarm occurs within 20 seconds of detection. Leak ≥0.35 ml/min at 0.25 Hct, for effluent flow rate below 5500 ml/h Leak ≥0.50 ml/min at 0.32 Hct, at highest effluent flow rate.