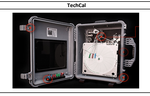
	Palmer				Rototherm		Rottcharm	DeWit	DeWit	DeWit	DeWit	Sagimoiya	TechCal	Stiko	Stiko
					9 Inch.	12 Inch.									
Model	Pelican* Case Models				RTO		Clearscan	1888ss	1892SS	1870SS	1828	AKM		RTC	RTP
Available Case Sizes	8 in.	12 in.	8 in.	12 in.	9 in. and 12 in.		12 in.	8" (277mm x 277mm)	6" (204mm x 222mm)	12" (350mm x 450mm)	8" (360mm, Round Housing)	162mm X 183.7mm		9" and 12"	9" and 12"
Case Material	Heavy Die Cast Aluminum		Pelican* Brand Case. Black, Silver, Orange, Yellow, OD Green, and Tan available.		Glass filled polyester resin		Zinc coated Steel, Finished in Expoxy Powder Paint	Stainless Steel AISI 316	Stainless Steel AISI 316	Stainless Steel AISI 316	Light metal, Blue Finish		Pelican Brand Case	AISI316L Stainless Steel	Peli Brand Case
Case Protection Rating	IP55		IP67 (Solid Door Models Only). IP65 for Models with window.		IP55			Weatherproof and Corrosion Resitant	Weatherproof	Weatherproof	Weatherproof		IP57, IP66 or IP67	Models with Spring-Wound clocks are ATEX with Safety Glass Window and Blow-Out option. Gas: II 2Gc and Dust: II 2Dc. 12 inch cases are IP65	IP67
Window Materials	Glass or Plexiglass		Plexiglass		Acrylic		Acrylic	Laminated Safety Glass	Laminated Safety Glass	Laminated Safety Glass: Scratchproof, 3mm uniform thickness	Laminated Safety Glass			Plexiglass	Plexiglass
Available Mounting Styles	Wall, Pedestal, Flush, Portable, or Pipestand		Wall, Portable, or Pipestand		Surface, Panel, Pipe, or Portable		Wall, Panel, Portable, or Pipe	Surface, Panel, or Portable	Surface, Panel, or Portable	Surface, Panel, Portable, or Yoke	Surface, Panel, or Portable	Portable	Panel, Pipe, Stand, or Portable	Panel, Surface, or Portable	Portable
Weight	8 in.	12 in.	Empty Case Weight: Approx. 2.5 kg (5.51 lbs)	Empty Case Weight: Approx. 3.7 kg (8.29 lbs)	Single Pen: 6.5 kg (14.25 lbs)									9" Model: 14.1 pounds	9" Model: 14.1 pounds
1 Pen	5.40 kg (12.1 lbs)	7.30 kg (16.1 lbs)			Two Pen: 7.0 kg (15.5 lbs)										
2 Pen	6.12 kg (13.5 lbs)	7.94 kg (17.5 lbs)			Three Pen: 7.5 kg (16.75 lbs)									12" Model: 23.4 pounds	12" Model: 23.4 pounds
3 Pen	6.76 kg (14.9 lbs)	8.57 lbs (18.9 lbs)			Portable single pen: 8.6 kg (19 lbs)										
Chart Drive Options	PC-11 Multi Speed Battery Driven Clock, PC-12 Multi Speed Battery Driven Clock, Mechanical Spring Wound (24 Hour, 48 Hour, 7 Day, or 31 day), 120v Electrical, or 220v Electrical		PC-11 Multi Speed Battery Driven Clock, PC-12 Multi Speed Battery Driven Clock, Mechanical Spring Wound (24 Hours or 7 Days. 15 Minute and 1 hour available.)		Synchrous Electric, Battery, or Mechanical Spring Wound (24 Hour or 7 Day)		Mains powered, mains powered with battery back-up, mechanical spring-wound, and battery-operated.	Mechanical Spring Wound Clock (24 Hour) Standard. Mechanical spring wound clock with single revolution time of 1 hour, 4 hours, 8 hours, 12 hours, or 7 days clockwise rotation. Counterclockwise rotation available. Switchable clockworks 1 hour / 15 minutes, 1 hour / 4 hours, 2 hours / 8 hours, 24 hours / 7 days (clockwise). Multiprogrammable battery-operated chart drive (counterclockwise) available.	Mechanical Spring Wound Clock (24 Hour) Standard. Mechanical spring wound clock with single revolution time of 1 hour, 4 hours, 8 hours, 12 hours, or 7 days clockwise rotation. Counterclockwise rotation available. Switchable clockworks 1 hour / 15 minutes, 1 hour / 4 hours, 2 hours / 8 hours, 24 hours / 7 days (clockwise). Multiprogrammable battery-operated chart drive (counterclockwise) available.	Mechanical Spring Wound Clock (24 Hour) Standard. Mechanical spring wound clock with single revolution time of 1 hour, 4 hours, 8 hours, 12 hours, or 7 days clockwise rotation. Counterclockwise rotation available. Switchable clockworks 1 hour / 15 minutes, 1 hour / 4 hours, 24 hours / 7 days (clockwise). Multiprogrammable battery-operated chart drive (counterclockwise) available.	Mechanical Spring Wound Clock (24 Hour) Standard. Mechanical spring wound clock with single revolution time of 1 hour, 4 hours, 8 hours, 12 hours, or 7 days clockwise rotation. Counterclockwise rotation available. Electric Clock available.	Battery Driven Motor, 1.5V DC, C Type Battery	Battery operated clock with rotations of 60 min, 96 min., 12 hours, 1 day, 2 days, 7 days, 8 days, 14 days, 16 days, 31 days, and 32 days. Mechanical spring wound clock with single revolution time of 1 hour / 15 minutes, 1 hour / 3 hours, 2 hours / 8 hours, 24 hours / 7 days, 24 hours / 8 days, 96 minutes / 24 hours, or 4 hours.	Spring wound clock with rotations of 1 hour, 4 hours, 8 hours, and 12 hours. Switchable spring wound clocks with rotations of 1 hour/15 minutes, 2 hours/30 minutes, 1 hour/4 hours, 2 hours/8 hours, 8 hours/24 hours, 24 hours/7 days. Battery operated clock with 30 minute, 60 minute, 96 minute, 1 hour, 2 hour, 4 hour, 6 hour, 8 hour, 12 hour, 1 day, 2 days, 3 days, 4 days, 7 days, 8 days, 14 days, 16 days, 31 days, or 32 days.	Spring wound clock with rotations of 1 hour, 4 hours, 8 hours, and 12 hours. Switchable spring wound clocks with rotations of 1 hour/15 minutes, 2 hours/30 minutes, 1 hour/4 hours, 2 hours/8 hours, 8 hours/24 hours, 24 hours/7 days. Battery operated clock with 30 minute, 60 minute, 96 minute, 1 hour, 2 hour, 4 hour, 6 hour, 8 hour, 12 hour, 1 day, 2 days, 3 days, 4 days, 7 days, 8 days, 14 days, 16 days, 31 days, or 32 days.
Charts	Bin. or 12in. With 6-3/8" Arc Line.		Bin. Charts with 6-3/8" Arc Line.		Dia 240mm (9.5 in.) diameter. Standard dividing 40, 50, 60, 70, or 80 linear divisions.		12" Diameter charts. 24 hours or 7 days is standard. 100 Charts included with recorder.					Recording paper feeding speed: 3.3mm per hour		Ø223 mm for 280 x 280 mm, or Ø300 mm for 380 x 380 mm	Ø223 mm for 280 x 280 mm, or Ø300 mm for 380 x 380 mm
Power Supply					200 to 250 volts, 50 Hz (60 Hz available); 100 to 110 volts, 50 Hz (60 Hz available).							100 to 120V AC or 200 to 240V, AC.	Battery Operated	Battery Operated	Battery Operated
Number of Pens	1, 2, or 3		1, 2, or 3		1, 2, or 3		1, 2, or 3	1 or 2	1 or 2	1, 2, or 3	1		1, 2, 3, or 4	1 or 2	1 or 2
Pen Type	Felt Tip		Felt Tip		Disposable Fibre Tipped Pens		Disposable Fibre Tipped Pens	Disposable Felt Tip	Disposable Felt Tip	Disposable Felt Tip	Disposable Felt Tip		Fine Point Felt Disposable Pens	Long-life fibre pens	Long-life fibre pens
Pen Color(s)	Red, Blue, and Green Standard. Black optional.		Red, Blue, and Green Standard. Black optional.		Red, Blue, and Green									Black, Red, or Blue	Black, Red, or Blue
Accuracy	± 1 Chart Graduation		± 1 Chart Graduation		± 1% FSD		± 1% FSD	± 1% of Full Scale (Accuracy Class 1.0)	Accuracy Class 1.0	Accuracy Class 1.0	Accuracy Class 1.0	Indicating Accuracy: ±2°C. Recording Accuracy: ± 0.5°C plus Indicating Accuracy.	± 0.5% of Span	±1.0% of Full Scale (Class 1.0)	±1.0% of Full Scale (Class 1.0)
Ambient Temperature					-20°C to +50°C		-20°C to +50°C								
Temperature Range	* denotes Non-Mercury system is available		* denotes Non-Mercury system is available				-30 to +70°C -30 to +50°C -30 to +30°C -25 to +35°C -20 to +50°C -10 to +50°C -10 to + 90°C 0 to 40°C 0 to 50°C 0 to 60°C 0 to 70°C 0 to 80°C 0 to 100°C 0 to 120°C 0 to 150°C 0 to 160°C 0 to 200°C 0 to 250°C 0 to 300°C 0 to 350°C 0 to 400°C 0 to 500°C 20 to 70°C 20 to 100°C 20 to 120°C 50 to 150°C 50 to 250°C 100 to 400°C 100 to 500°C	0 to 80°F 0 to 120°F 0 to 160°F 0 to 200°F 0 to 250°F	-170°C to +600°C. Minimum temperature span of 60°C.	-170°C to + 600°C. Minimum temperature span of 60°C	-170°C to + 600°C. Minimum temperature span of 60°C	-170°C to + 600°C. Minimum temperature span of 60°C	-40°C to +14°C 0°C to 54°C -10°C to 44°C -6°C to 20°C	0 - 100°F 0 - 120°F 0 - 150°F 0 - 200°F 0 - 300°F 0 - 500°F	Ranges between -200°C and 800°C Available. Minimum span is 80°C.	
	-30 to 120°F*	0 to 60°C*	-30 to 120°F*	0 to 60°C*											
	0 to 100°F*	0 to 100°C*	0 to 100°F*	0 to 100°C*											
	0 to 120°F*	0 to 120°C*	0 to 120°F*	0 to 120°C*											
	0 to 150°F*	0 to 150°C*	0 to 150°F*	0 to 150°C*											
	0 to 200°F*	0 to 200°C*	0 to 200°F*	0 to 200°C*	-40 to +40°C										
	0 to 250°F*	0 to 250°C*	0 to 250°F*	0 to 250°C*	-30 to +30°C										
	0 to 300°F*	0 to 300°C*	0 to 300°F*	0 to 300°C*	-30 to +50°C										
	0 to 400°F*	0 to 350°C	0 to 400°F*	0 to 350°C	-25 to +35°C										
	0 to 500°F*	0 to 400°C	0 to 500°F*	0 to 400°C	-25 to +70°C										
	0 to 600°F*	0 to 500°C	0 to 600°F*	0 to 500°C	0 to 40°C										
	0 to 800°F	0 to 600°C	0 to 800°F	0 to 600°C	0 to 50°C										
	0 to 1000°F		0 to 1000°F		0 to 60°C										
					0 to 100°C										
					0 to 120°C										
					0 to 150°C										
					0 to 160°C										
					0 to 200°C										
					0 to 250°C										
					0 to 300°C										
					0 to 350°C										
					0 to 400°C										
					0 to 500°C										
					20 to 70°C										
					20 to 100°C										
					20 to 120°C										
					50 to 150°C										
					50 to 250°C										
					100 to 400°C										
					100 to 500°C										
					*Other Ranges Available upon request										
Measuring Element	All Mercury Filled systems are completely welded and conform to ASME. Non-Mercury Temperature Elements available in some temperature ranges.		All Mercury Filled systems are completely welded and conform to ASME. Non-Mercury Temperature Elements available in some temperature ranges.		Thermal Bourdon Tube temperature compensated		Thermal Bourdon Tube temperature compensated	Wetted Parts for AISI 316 Stainless Steel in ranges of up to 0 to 1,600 bar	Wetted Parts for AISI 316 Stainless Steel in ranges of up to 0 to 1,600 bar	Wetted Parts for AISI 316 Stainless Steel in ranges of up to 0 to 1,600 bar	Wetted Parts for AISI 316 Stainless Steel in ranges of up to 0 to 1,600 bar		Helical Bourdon Class V Mercury Filled System	Brass, Nickel Plated Movement.	
Capillary	Stainless Steel Flex Armour, 5 ft standard. PVC Covered and Stainless Steel Bendable stiff flex armor are available. Mercury systems: up to 25 feet. Mercury free systems: up to 99 feet.		Stainless Steel Flex Armour, 5 ft standard. PVC Covered and Stainless Steel Bendable stiff flex armor are available. Mercury systems: up to 25 feet. Mercury free systems: up to 99 feet.		Microbore stainless steel tube with 3mm diameter stainless steel cover (type C1) as standard. Other capillary types are available.		Microbore stainless steel tube with 3mm diameter stainless steel cover (type C1) as standard. Other capillary types are available.					Standard capillary length of 2 meters. Plastic covering available.	Stainless Steel, 10 feet long	CAPILLARY: Stainless Steel AISI321 / 1.4541 or Stainless Steel AISI321 / 1.4541 + PVC. CAPILLARY COVERINGS:Flexible Stainless Steel AISI304/1.4301, Flexible Stainless Steel AISI304/1.4301 + PVC, Flexible Stainless Steel AISI316/1.4401, Flexible Stainless Steel AISI316/1.4401 + PVC, or Plumb (Pb)	
Bulb and Stem	Mercury Systems: 300 Series Stainless Steel Bulb. Mercury Free Systems: 316SS.		Mercury Systems: 300 Series Stainless Steel Bulb. Mercury Free Systems: 316SS.		Stainless Steel B5970 316. Standard diameter is 12.7mm		Stainless Steel B5970 316. Standard diameter is 12.7mm						12" Probe with 11/16" Bulb. Custom Lengths available.	Plain Stem with Bulb Diameters between 6 mm and 20 mm available.	
Fittings	1/2" NPT, 3/4" NPT, 5/8" Stainless Steel coupling, 1.25" -18 Swivel Nut, 7/8" -22 Swivel Nut for well or union connection, or Compression Fitting		1/2" NPT, 3/4" NPT, 5/8" Stainless Steel coupling, 1.25" -18 Swivel Nut, 7/8" -22 Swivel Nut for well or union connection, or Compression Fitting		Compression Gland (adjustable). Stainless steel B5970 316 (1/2" BSP is standard). Other BSP, NPT, and API are available on request (suitable for pressures up to 3.5 bar). Suitable for surface or panel mounting. (Pipe mounting and portable options available).		Compression gland (adjustable). Stainless steel (1/2" BSP is standard). Other BSP, NPT, and API are available on request, suitable for pressures up to 3.5 bar.						1/2" NPT Gland	Coupling Nut: Standard (1/4" BSP, 3/8" BSP, 1/2" BSP, 3/4" BSP, 1" BSP, M 18x1.5, M 20 x 1.5, or M 24x1.5). Coupling Nut: Long. Turning Nipple: Standard. Turning Nipple: Long. Coupling Nut + Double Nipple. Adjustable connection, Sliding on Extension Tube. Adjustable connection, sliding on capillary. Adjustable connection, sliding on stem. Surface Bulb. Helical Air Bulb. Sanitary Connections: Acc. to DIN 11851. Tri-Clamp Acc. to ISO 2852. Varivent (R) In-Line.	
Bulb Types	Type 45-5	Mercury Systems Only. Plain bulb of stainless steel. 6" probe is standard; other lengths available on request.	Type 45-5	Mercury Systems Only. Plain bulb of stainless steel. 6" probe is standard; other lengths available on request.	Type 301	Used when no compression fitting is required. This bulb may be held in place by a bracket or clip (not supplied by manufacturer) or may be inserted directly into the process.	Type 301	Used when no compression fitting is required. This bulb may be held in place by a bracket or clip (not supplied by manufacturer) or may be inserted directly into the process.							Plain Stem with Bulb Diameters between 6 mm and 20 mm available. Available Options: AISI316/1.4401, Polished (Mechanical), PTFE * Lining (Max 250°C), HALAR * Coated (Max 120°C)
	Type 45-11	Mercury Systems Only. Bendable stiff armor between plain bulb and flexible armor.	Type 45-11	Mercury Systems Only. Bendable stiff armor between plain bulb and flexible armor.	Type 302	This bulb has a compression gland fitting that slides along the capillary and is tightened into the required position. This bulb type is only available with plain stainless steel capillart (Type C1). Armoured capillaries are not available as it is not possible to move the fitting along the armoured capillart. Bulb length cannot be specified.	Type 302	This bulb has a compression gland fitting that slides along the capillary and is tightened into the required position. This bulb type is only available with plain stainless steel capillart (Type C1). Armoured capillaries are not available as it is not possible to move the fitting along the armoured capillart. Bulb length cannot be specified.							
	Type 45-12	Mercury Systems Only. Bendable stiff armor between plain bulb and flexible armor.	Type 45-12	Mercury Systems Only. Bendable stiff armor between plain bulb and flexible armor.	Type 303	Compression gland fittings tighten on the bulb to provide liquid and gas tight seal. Once fitted the position of the gland fitting can only be altered by cutting off the olive and replacing it with a new one. If required, this bulb type may be specified with a compression gland fitting; in this instance, please confirm the required overall length of the bulb.	Type 303	Compression gland fittings tighten on the bulb to provide liquid and gas tight seal. Once fitted the position of the gland fitting can only be altered by cutting off the olive and replacing it with a new one. If required, this bulb type may be specified with a compression gland fitting; in this instance, please confirm the required overall length of the bulb.							
	Type 45-13	Mercury Systems Only. Bulb for well or union connections.	Type 45-13	Mercury Systems Only. Bulb for well or union connections.											
	Type 45-14	Mercury Systems Only. Standard bulb construction permits instruments to be	Type 45-14	Mercury Systems Only. Standard bulb construction permits instruments to be											
	Type 45-29	Mercury Systems Only. Plain air temperature bulb with rings for suspending in air stream.	Type 45-29	Mercury Systems Only. Plain air temperature bulb with rings for suspending in air stream.											
	Type 45-30	Mercury Systems Only. Air temperature bulb design for union connections. Standard outside diameter of 5/16" and 3/8".	Type 45-30	Mercury Systems Only. Air temperature bulb design for union connections. Standard outside diameter of 5/16" and 3/8".											
	Type 46-5	Mercury Free systems only. Bulb and capillary system for air temperature, or to be dropped into a tank or bin and hung from the capillary.	Type 46-5	Mercury Free systems only. Bulb and capillary system for air temperature, or to be dropped into a tank or bin and hung from the capillary.											
	Tpe 46-14	Mercury Free systems only. Bulb and capillary system designed to be inserted into a thermowell (closed receptacle) in the process or through a union hub (open end) directly into the process or using the 1/2" NPT or 3/4" NPT probe sliding compression fitting directly into the process.	Tpe 46-14	Mercury Free systems only. Bulb and capillary system designed to be inserted into a thermowell (closed receptacle) in the process or through a union hub (open end) directly into the process or using the 1/2" NPT or 3/4" NPT probe sliding compression fitting directly into the process.											
Alarms	No				No		No	No			Settable high and low alarm points within temperature range. Alarm Accuracy is ± 2°C.				
Other														ATEX Models available, requires spring wound clock, safety glass and blow out protection	

Note: Specifications and included accessories are subject to change without notice.