

## OVERVIEW: POLARIMETERS, ACCESSORIES AND CONSUMABLES

ORDER NUMBER	POLARIMETERS
P8000	Digital polarimeter without temperature control and with a measurement accuracy of up to $\pm 0.003^\circ$
P8100	Digital polarimeter without temperature control and with a measurement accuracy of up to $\pm 0.002^\circ$
P8000-T	Digital polarimeter with circulating thermostat (PT31) temperature control, measurement accuracy of up to $\pm 0.003^\circ$
P8100-T	Digital polarimeter with circulating thermostat (PT31) temperature control, measurement accuracy of up to $\pm 0.002^\circ$
P8000-T80	Digital polarimeter with circulating thermostat (PT80) temperature control, measurement accuracy of up to $\pm 0.003^\circ$
P8100-T80	Digital polarimeter with circulating thermostat (PT80) temperature control, measurement accuracy of up to $\pm 0.002^\circ$
P8000-TF	Digital polarimeter with circulating thermostat temp. control, flow-through function, measurement accuracy of up to $\pm 0.003^\circ$
P8100-TF	Digital polarimeter with circulating thermostat temp. control, flow-through function, measurement accuracy of up to $\pm 0.002^\circ$
P8000-P	Digital polarimeter with Peltier temperature control and a measurement accuracy of up to $\pm 0.003^\circ$
P8100-P	Digital polarimeter with Peltier temperature control and a measurement accuracy of up to $\pm 0.002^\circ$
P3000	Digital polarimeter without temperature control and with a measurement accuracy of up to $\pm 0.01^\circ$
P1000-LED	Analogue polarimeter with a reading accuracy of up to 0.05°

ORDER NUMBER	GLASS MEASUREMENT TUBES
PRG-100	Glass tube, 100 mm, 12 ml
PRG-200	Glass tube, 200 mm, 22 ml
PRG-50-E	Glass tube with filling funnel, 50 mm, 3 ml
PRG-100-E	Glass tube with filling funnel, 100 mm, 6 ml
PRG-200-E	Glass tube with filling funnel, 200 mm, 12 ml
PRG-100-ET	Glass tube with stainless steel jacket and filling funnel, temperature-controlled, 100 mm, < 4 ml
PRG-200-ET	Glass tube with stainless steel jacket and filling funnel, temperature-controlled, 200 mm, < 8 ml
PRG-100-EPT	Glass tube with stainless steel jacket, inlet & outlet, integrat. Peltier temp. control and temperature measurement, 100 mm, 8 ml
PRG-50-M	Micro glass tube, 50 mm, 0.55 ml
PRG-100-M	Micro glass tube, 100 mm, 1.1 ml
PRG-50-MT	Micro glass tube, temperature-controlled, 50 mm, 0.4 ml
PRG-100-D	Flow-through glass tube, 100 mm, 8.7 ml
PRG-100-DT	Flow-through micro glass tube, temperature-controlled, 100 mm, 0.7 ml

ORDER NUMBER	STAINLESS STEEL MEASUREMENT TUBES
PRM-100-ET	Stainless steel tube with filling funnel, temperature-controlled, 100 mm, 12 ml
PRM-100-D	Stainless steel flow-through tube with filling funnel and overflow pipe, 100 mm, 12 ml
PRM-200-D	Stainless steel flow-through tube with filling funnel and overflow pipe, 200 mm, 17 ml
PRM-100-DT	Stainless steel flow-through tube with filling funnel and overflow pipe, temperature-controlled, 100 mm, 12 ml
PRM-200-DT	Stainless steel flow-through tube with filling funnel and overflow pipe, temperature-controlled, 200 mm, 17 ml
PRM-100-DTT	Stainless steel flow-through tube with filling funnel and overflow pipe, temperature-controlled, with temperature probe, 100 mm, 12 ml
PRM-200-DTT	Stainless steel flow-through tube with filling funnel and overflow pipe, temperature-controlled, with temperature probe, 200 mm, 17 ml
PRM-50-SD	Stainless steel flow-through tube with hose connections, 50 mm, 10 ml
PRM-100-SD	Stainless steel flow-through tube with hose connections, 100 mm, 12 ml
PRM-200-SD	Stainless steel flow-through tube with hose connections, 200 mm, 17 ml
PRM-10-SDM	Stainless steel flow-through micro tube with hose connections, 10 mm, 1.5 ml
PRM-50-SDM	Stainless steel flow-through micro tube with hose connections, 50 mm, 1 ml
PRM-100-SDM	Stainless steel flow-through micro tube with hose connections, 100 mm, 0.5 ml
PRM-100-SDT	Stainless steel flow-through tube with hose connections, temperature-controlled, 100 mm, 12 ml
PRM-200-SDT	Stainless steel flow-through tube with hose connections, temperature-controlled, 200 mm, 17 ml
PRM-25-SDTM	Stainless steel flow-through micro tube with hose connections, temperature-controlled, 25 mm, 0.5 ml
PRM-50-SDTM	Stainless steel flow-through micro tube with hose connections, temperature-controlled, 50 mm, 1 ml
PRM-100-SDTM	Stainless steel flow-through micro tube with Luer connections, temperature-controlled, 100 mm, 0.5 ml
PRM-200-SDTM	Stainless steel flow-through micro tube with Luer connections, temperature-controlled, 200 mm, 2.5 ml
PRM-100-SDTT	Stainless steel flow-through tube with hose connections, temperature-controlled, with temperature probe, 100 mm, 12 ml
PRM-200-SDTT	Stainless steel flow-through tube with hose connections, temperature-controlled, with temperature probe, 200 mm, 17 ml

**E** = with filling funnel; **ET** = with filling funnel, temperature-controlled  
**EPT** = with integrated Peltier temperature control and temperature measurement  
**M** = micro tube; **MT** = micro tube, temperature-controlled  
**D** = flow-through tube with filling funnel  
**DT** = flow-through tube with filling funnel, temperature-controlled  
**DTT** = flow-through tube with filling funnel, temperature-controlled with temperature probe

**SD** = flow-through tube with hose connections  
**SDM** = flow-through micro tube with hose connections  
**SDT** = flow-through tube with hose connections, temperature-controlled  
**SDTM** = flow-through micro tube with hose connections, temperature-controlled  
**SDTT** = flow-through tube with hose connections, temperature-controlled with temperature probe

ORDER NUMBER	QUARTZ CONTROL PLATES
PQE+17	Factory-certified economy quartz control plate for P3000 (to a limited extent P8000 series); accuracy: $\pm 0.005^\circ$ , angle of rotation: $+17^\circ (\pm 1^\circ)$ , $+50^\circ \text{Z} (\pm 1^\circ \text{Z})$ at $20^\circ \text{C}$
PQE+34	Factory-certified economy quartz control plate for P3000 (to a limited extent P8000 series); accuracy: $\pm 0.005^\circ$ , angle of rotation: $+34^\circ (\pm 1^\circ)$ , $+99^\circ \text{Z} (\pm 1^\circ \text{Z})$ at $20^\circ \text{C}$
PQE-17	Factory-certified economy quartz control plate for P3000 (to a limited extent P8000 series); accuracy: $\pm 0.005^\circ$ , angle of rotation: $-17^\circ (\pm 1^\circ)$ , $-50^\circ \text{Z} (\pm 1^\circ \text{Z})$ at $20^\circ \text{C}$
PQE-34	Factory-certified economy quartz control plate for P3000 (to a limited extent P8000 series); accuracy: $\pm 0.005^\circ$ , angle of rotation: $-34^\circ (\pm 1^\circ)$ , $-99^\circ \text{Z} (\pm 1^\circ \text{Z})$ at $20^\circ \text{C}$
PQP+17	PTB-certified premium quartz control plate for P8000 series and P3000; accuracy: $\pm 0.001^\circ$ , angle of rotation: $+17^\circ (\pm 1^\circ)$ , $+50^\circ \text{Z} (\pm 1^\circ \text{Z})$ at $20^\circ \text{C}$
PQP+34	PTB-certified premium quartz control plate for P8000 series and P3000; accuracy: $\pm 0.001^\circ$ , angle of rotation: $+34^\circ (\pm 1^\circ)$ , $+99^\circ \text{Z} (\pm 1^\circ \text{Z})$ at $20^\circ \text{C}$
PQP-17	PTB-certified premium quartz control plate for P8000 series and P3000; accuracy: $\pm 0.001^\circ$ , angle of rotation: $-17^\circ (\pm 1^\circ)$ , $-50^\circ \text{Z} (\pm 1^\circ \text{Z})$ at $20^\circ \text{C}$

ORDER NUMBER	ACCESSORIES AND CONSUMABLES
PT80	Circulating thermostat; adjustment range: $5\text{--}80^\circ \text{C}$ ; interface: RS-232; power supply: $100\text{--}240 \text{ V}$ , $50/60 \text{ Hz}$ , $60 \text{ W}$ ; dimensions (w x h x d): $170 \text{ mm} \times 225 \text{ mm} \times 244 \text{ mm}$
PT31	Circulating thermostat; adjustment range: $8\text{--}35^\circ \text{C}$ ; interface: RS-232; power supply: $100\text{--}240 \text{ V}$ , $50/60 \text{ Hz}$ , $60 \text{ W}$ ; dimensions (w x h x d): $108 \text{ mm} \times 199 \text{ mm} \times 145 \text{ mm}$
PT31-DECKEL	Cover for circulating thermostat PT31
PT31-NETZTEIL	Mains adaptor for circulating thermostat PT31 with EU connector
P8001	Set for the connection of circulating thermostat PT31 to polarimeter P8000-T/-TF, consisting of: 2 silicone tubes ( $300 \text{ mm}$ ); 2 tube connections, straight
P8002	Set for the connection of measurement tubes (old version), consisting of: 2 silicone tubes ( $250 \text{ mm}$ ); 2 tube connections, straight
P8003	Set for the connection of measurement tubes (new version), consisting of: 2 silicone tubes ( $100 \text{ mm}$ ); 2 tube connections, angled
PRT-E	Temperature probe made of stainless steel with sensor Pt100
PRT-T	Temperature probe made of stainless steel, PTFE-coated, with sensor Pt100
PRT-P	Adaptor plug for the connection of temperature probe PRT-E/PRT-T to polarimeter P8000-P/P8100-P
DS7009	Luer syringe, $2 \text{ ml}$ , 10 pieces
DS7010	Luer syringe, $10 \text{ ml}$ , 10 pieces
DS7019	PE waste container with lid, $600 \text{ ml}$
DS7060	Drying unit with $3/2$ -way valve
DS7070	Peristaltic pump
DS7071	Tube set for peristaltic pump DS7070, consisting of: TPE pump tube ( $105 \text{ mm}$ ), 5 pieces; PTFE tube connection UNF, 2 pieces
DS7072	Tube set for peristaltic pump DS7070, consisting of: TPE pump tube ( $105 \text{ mm}$ ), 5 pieces; PTFE tube connection (olive), 2 pieces
AS80	Autosampler for 18 or 36 samples, including: sample plate $18 \times 50 \text{ ml}$ ( $42 \text{ mm} \times 43 \text{ mm}$ ) or $36 \times 30 \text{ ml}$ ( $28 \text{ mm} \times 65 \text{ mm}$ ) set polypropylene vials ( $50 \text{ ml}$ ) or glass vials ( $30 \text{ ml}$ ); other vials on request; PTFE connecting tube
AS90	Autosampler for 53 or 89 samples, including: sample plate $53 \times 16 \text{ ml}$ ( $22 \text{ mm} \times 55 \text{ mm}$ ) or $89 \times 6 \text{ ml}$ ( $16 \text{ mm} \times 55 \text{ mm}$ ) set polypropylene vials ( $16$ or $6 \text{ ml}$ ); other vials on request; PTFE connecting tube
AS80-T18	Sample plate $18 \times 50 \text{ ml}$ ( $42 \text{ mm} \times 43 \text{ mm}$ )
AS80-T36	Sample plate $36 \times 30 \text{ ml}$ ( $28 \text{ mm} \times 65 \text{ mm}$ )
AS90-T53	Sample plate $53 \times 16 \text{ ml}$ ( $22 \text{ mm} \times 55 \text{ mm}$ )
AS90-T89	Sample plate $89 \times 6 \text{ ml}$ ( $16 \text{ mm} \times 55 \text{ mm}$ )
BC876	Barcode scanner
CBM910	Drucker sowie umfangreiches Drucker-Zubehör

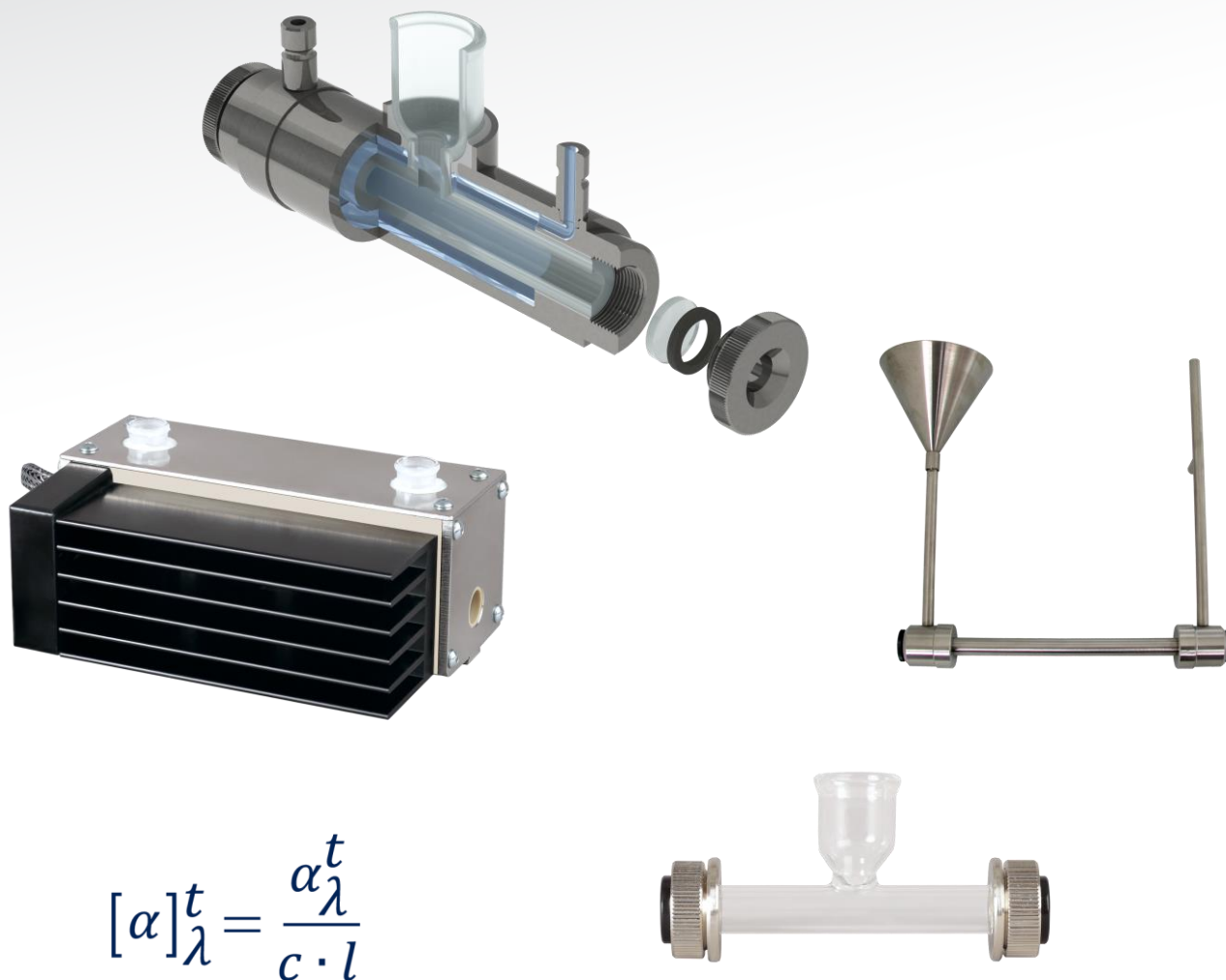
Do you receive the instruction manual in digital form, then these links are **interactive**

The keyboard combination  
 +   
 brings you back to the starting point

# POLARIMETER | MEASUREMENT TUBE

MEASUREMENT TUBES FOR A COMFORTABLE SAMPLE SUPPLY

Version 2.1 February 2023





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## POLARIMETER OVERVIEW

	<p><b>Polarimeter P8000 and P8100</b></p> <p>Recommendable devices for all basic applications without sample temperature control. Instead of temperature control, temperature compensation according to ICUMSA can be used.</p> <p><a href="#">(A.KRÜSS-Website)</a></p>
	<p><b>Polarimeter P8000-P and P8100-P</b></p> <p>High-precision measurements through temperature control without an additional device and exact temperature control via Peltier technology.</p> <p><a href="#">(A.KRÜSS-Website)</a></p>
	<p><b>Polarimeter P8000-T and P8100-T</b></p> <p>These Polarimeter models enable in connection with temperature-controlled measurement tubes and a circulating thermostat (PT31/PT80) a sample temperature control between 8 °C up to 40 °C at PT31 and 5 °C up to 80 °C at PT80.</p> <p><a href="#">(A.KRÜSS-Website)</a></p>
	<p><b>Polarimeter P3000</b></p> <p>This device is built for standard applications as an economic solution for which a measurement accuracy of <math>\pm 0.01^\circ</math> is sufficient and a temperature control can be omitted.</p> <p><a href="#">(A.KRÜSS-Website)</a></p>
	<p><b>Polarimeter P1000-LED</b></p> <p>Device for education and training which measures the optical rotation according to the half-shade principle. The measurement results are read through an eyepiece and two noniuses.</p> <p><a href="#">(A.KRÜSS-Website)</a></p>



## GLASS MEASUREMENT TUBE – WITHOUT TEMPERATURE CONTROL

APPLICABLE FOR POLARIMETER						
MEASUREMENT TUBE	P8000 P8100 Without temperature control	P8000-P P8100-P Temperature control with Peltier technology	P8000-T P8100-T Temperature control circulating thermostat/ temperature-controlled measurement tubes recommended	P3000 Without temperature control <sup>2)</sup>	P1000-LED Without temperature control	
<b>Glass measurement tube (without temperature control)</b> PRG-50-E und PRG-100-E und PRG-200-E						
 <p>Available tube lengths: 50/100/200 mm</p> <p>Luer connection: No</p> <p>Flow-through: No</p> <p>Required sample volume<sup>1)</sup>: 3ml/50 mm 6 ml/100 mm 12 ml/200 mm</p>	<p><b>Abbreviation:</b> <b>PRG/</b> P/Polarimeter R/Tube G/Glass</p> <p>E/Filling funnel</p>	PRG-100-E und PRG-200-E Supplied as part of the scope of delivery.	PRG-100-E und PRG-200-E Supplied as part of the scope of delivery.	PRG-100-E und PRG-200-E Supplied as part of the scope of delivery.	PRG-100-E und PRG-200-E Supplied as part of the scope of delivery.	
<b>Glass measurement tube (without temperature control)</b> PRG-100 und PRG-200						
 <p>Available tube lengths: 100/200 mm</p> <p>Luer connections: No</p> <p>Flow-through: No</p> <p>Required sample volume<sup>1)</sup>: 12 ml/100 mm 22ml/200 mm</p>	<p><b>Abbreviation:</b> <b>PRG/</b> P/Polarimeter R/Tube G/Glass</p>	Applicable	Applicable	Applicable	Applicable	Glass measurement tube Supplied as part of the scope of delivery

<sup>1)</sup>Details of the sample volume are “approximate values” and do not consider the filling level of the filling funnel or the respective product tolerances.

<sup>2)</sup>Temperature control is possible on request.



## MICRO MEASUREMENT TUBE – WITHOUT TEMPERATURE CONTROL

APPLICABLE FOR POLARIMETER						
MEASUREMENT TUBE	P8000 P8100 Without temperature control	P8000-P P8100-P Temperierung mit Peltier-Technologie	P8000-T P8100-T Temperature control Circulating thermostat/ Temperature-controlled measurement tubes recommended	P3000 Without temperature control <sup>2)</sup>	P1000-LED Without temperature control	
<b>Glass measurement tube (without temperature control)</b> PRG-50-M and PRG-100-M						
 Available tube lengths: 50/100 mm Luer connection: No Flow-through: No Required sample volume <sup>1)</sup> : 0.55 ml/50 mm 1.1 ml/100 mm	<b>Abbreviation:</b> <b>PRG/</b> P/Polarimeter R/Tube G/Glass	Applicable	Applicable	Applicable	Applicable	Applicable
<b>Stainless steel micro flow-through measurement tube (without temperature control)</b> PRM-10-SDM and PRM-100-SDM						
 Available tube lengths: 10/100 mm Luer connection: Yes Flow-through: Yes Required sample volume <sup>1)</sup> : 0,2 ml/10 mm 0,5 ml/100 mm	<b>Abbreviation:</b> <b>PRM/</b> P/Polarimeter R/Tube M/Metal  <b>S/</b> Tube connection <b>D/</b> Flow-through  <b>M/</b> Micro	Only applicable with P8020	Only applicable with P8020	Only applicable with P8020	Only applicable with P8020	

<sup>1)</sup>Details of the sample volume are “approximate values” and do not consider the filling level of the filling funnel or the respective product tolerances.

<sup>2)</sup>Temperature control is possible on request.

## FLOW-THROUGH MEASUREMENT TUBES – WITHOUT TEMPERATURE CONTROL

APPLICABLE FOR POLARIMETER						
MEASUREMENT TUBE	P8000 P8100	P8000-P P8100-P	P8000-T P8100-T	P3000	P1000- LED	
<b>Stainless steel flow-through measurement tube (without temperature control)</b>						
PRM-100-SD						
 <p>Available tube lengths: 100 mm</p> <p>Luer connection: No</p> <p>Flow-through: Yes</p> <p>Required sample volume<sup>1)</sup>: 1,3 ml/100 mm</p>	<p><b>Abbreviation:</b> <b>PRM/</b> P/Polarimeter R/Tube M/Metal</p> <p>S/Tube connection D/Flow-through</p>	Only applicable with P8020 <sup>2)</sup>	Only applicable with P8020 <sup>2)</sup>	Only applicable with P8020 <sup>2)</sup>	Only applicable with P8020 <sup>2)</sup>	
<b>Stainless steel flow-through measurement tube (without temperature control)</b>						
PRM-100-D and PRM-200-D						
 <p>Available tube lengths: 100/200 mm</p> <p>Luer connection: No</p> <p>Flow-through: Yes</p> <p>Required sample volume<sup>1)</sup>: 12 ml/100 mm 17 ml/200 mm</p>	<p><b>Abbreviation:</b> <b>PRM/</b> P/Polarimeter R/Tube M/Metal</p> <p>D/Flow-through (with filling funnel)</p>	Only applicable with P8020 <sup>2)</sup>	Only applicable with P8020 <sup>2)</sup>	Only applicable with P8020 <sup>2)</sup>	Only applicable with P8020 <sup>2)</sup>	



<sup>1)</sup>Details of the sample volume are “**approximate values**” and do not consider the filling level of the filling funnel or the respective product tolerances.

<sup>2)</sup>P8020 = **Sample chamber bushing**

It is required to organize the sample filling by a pump or to enable the temperature control (hose bushing).

<sup>3)</sup>Temperature control is possible on request.

**MEASUREMENT TUBES – TEMPERATURE-CONTROLLED (CIRCULATION THERMOSTAT PT80/PT31)**

<b>APPLICABLE FOR POLARIMETER</b>					
<b>MEASUREMENT TUBE</b>	<b>P8000 P8100</b> Without temperature control	<b>P8000-P P8100-P</b> Temperature control with Peltier technology	<b>P8000-T P8100-T</b> Temperature control circulating thermostat/ temperature-controlled measurement tubes recommended	<b>P3000</b> Without temperature control <sup>3)</sup>	<b>P1000-LED</b> Without temperature control
<b>Glass measurement tube (temperature controlled)</b> PRG-100-ET und PRG-200-ET					
 <p>Available tube lengths: 100/200 mm</p> <p>Luer connection: No</p> <p>Flow-through: No</p> <p>Required sample volume<sup>1)</sup>: 4 ml/100 mm 8 ml/200 mm</p>	<p><b>Abbreviation:</b> <b>PRM/</b> <b>P/</b>Polarimeter <b>R/</b>Tube <b>G/</b>Glas</p> <p><b>E/</b> Filling funnel <b>T/</b> temperature controlled ( by surrounding water jacket )</p>			Applicable	
<b>Stainless steel measurement tube with filling funnel (temperature-controlled)</b> PRM-100-ET					
 <p>Available tube lengths: 100 mm</p> <p>Luer connection: No</p> <p>Flow-through: No</p> <p>Required sample volume<sup>1)</sup>: 12 ml/100 mm</p>	<p><b>Abbreviation:</b> <b>PRM/</b> <b>P/</b>Polarimeter <b>R/</b>Tube <b>M/</b>Metal</p> <p><b>E/</b>Filling funnel <b>T/</b>temperature-controlled by surrounding water jacket )</p>			Only applicable with P8020 <sup>2)</sup>	

<sup>1)</sup>Details of the sample volume are “approximate values” and do not consider the filling level of the filling funnel or the respective product tolerances.



<sup>2)</sup>P8020 = Sample chamber bushing

It is required to organize the sample filling by a pump (hose bushing) or to enable the temperature control (temperature control bushing).

<sup>3)</sup>Temperature control is possible on request.



**MEASUREMENT TUBE – TEMPERATURE-CONTROLLED (CIRCULATION THERMOSTAT PT80/PT31)**

APPLICABLE FOR POLARIMETER					
MEASUREMENT TUBE	P8000 P8100 Without temperature control	P8000-P P8100-P Temperature control with Peltier technology	P8000-T P8100-T Temperature control circulating thermostat/ temperature-controlled measurement tubes recommended	P3000 Without temperature control <sup>3)</sup>	P1000-LED Without temperature control
<b>Stainless steel flow-through measurement tube (temperature-controlled)</b> PRM-100-DTT and PRM-200-DTT					
 <p>Available tube lengths: 100/200 mm</p> <p>Luer connection: No</p> <p>Flow-through: Yes</p> <p>Required sample volume<sup>1)</sup>: 12 ml/100 mm 17 ml/200 mm</p>	<p><b>Abbreviation:</b> <b>PRM/</b> <b>P/</b>Polarimeter <b>R/</b>Tube <b>M/</b>Metal</p> <p><b>D/</b>Flow-through (with filling funnel) <b>T/</b>Temperature controlled (via water jacket) <b>T/</b>Temperature sensor</p>			Only applicable with P8020 <sup>2)</sup>	
<b>Temperature sensor</b> PRT-E and PRT-T					
 <p>PRT-E Stainless steel temperature sensor</p> <p>PRT-T Stainless steel temperature sensor, PTFE-coated</p>			Can be used with all measurement tubes (equipped with a filling funnel <sup>4)</sup> )		

<sup>1)</sup>Details of the sample volume are “approximate values” and do not consider the filling level of the filling funnel or the respective product tolerances.



<sup>2)</sup>P8020 = Sample chamber bushing

It is required to organize the sample filling by a pump (hose bushing) or to enable the temperature control (temperature control bushing).

<sup>3)</sup>Temperature control is possible on request.

<sup>4)</sup> If no funnel is provided, the temperature sensor is located directly in the sample chamber.

## STAINLESS STEEL FLOW-THROUGH MEASUREMENT TUBE – TEMPERATURE-CONTROLLED (CIRCULATION THERMOSTAT PT80/PT31)



APPLICABLE FOR POLARIMETER					
MEASUREMENT TUBE	P8000 P8100 Without temperature control	P8000-P P8100-P Temperature control with Peltier technology	P8000-T P8100-T Temperature control circulating thermostat/temperature-controlled measurement tubes recommended	P3000 Without temperature control <sup>3)</sup>	P1000-LED Without temperature control
<b>Stainless steel flow-through measurement tube (temperature-controlled)</b> PRM-200-DT					
 <p>Available tube lengths: 200 mm</p> <p>Luer connection: No</p> <p>Flow-through: Yes</p> <p>Required sample volume<sup>1)</sup>: 17 ml/200 mm</p>	<p><b>Abbreviation:</b> PRM/ P/Polarimeter R/Tube M/Metal</p> <p>D/Flow-through (with filling funnel)</p> <p>T/Temperature-controlled (via water jacket)</p>			Only applicable with P8020 <sup>2)</sup>	
<b>Stainless steel flow-through measurement tube (temperature-controlled)</b> PRM-200-SDT					
 <p>Available tube lengths: 200 mm</p> <p>Luer connection: No</p> <p>Flow-through: Yes</p> <p>Required sample volume<sup>1)</sup>: 17 ml/200 mm</p>	<p><b>Abbreviation:</b> PRM/ P/Polarimeter R/Tube M/Metal</p> <p>S/Tube connection D/Durchfluss</p> <p>T/Temperature-controlled (via water jacket)</p>			Only applicable with P8020 <sup>2)</sup>	

<sup>1)</sup>Details of the sample volume are “approximate values” and do not consider the filling level of the filling funnel or the respective product tolerances.

<sup>2)</sup>P8020 = Sample chamber bushing - It is required to organize the sample filling by a pump (hose bushing) or to enable the temperature control (temperature control bushing).

<sup>3)</sup>Temperature control is possible on request.

**MEASUREMENT TUBE – TEMPERATURE-CONTROLLED (CIRCULATION THERMOSTAT PT80/PT31)**


APPLICABLE FOR POLARIMETER					
MEASUREMENT TUBE	P8000 P8100 Without temperature control	P8000-P P8100-P Temperature control with Peltier technology	P8000-T P8100-T Temperature control circulating thermostat/ temperature-controlled measurement tubes recommended	P3000 Without temperature control <sup>3)</sup>	P1000-LED Without temperature control
<b>Stainless steel flow-through measurement tube</b> PRM-100-SDTM-2,5					
 Available tube lengths: 100 mm Luer connection: Yes Flow-through: Yes Required sample volume <sup>1)</sup> : 0,5 ml/100 mm	<b>Abbreviation:</b> <b>PRM/</b> <b>P/</b> Polarimeter <b>R/</b> Tube <b>M/</b> Metal  <b>S/</b> Tube connection <b>D/</b> Flow-through <b>T/</b> Temperature-controlled <b>M/</b> Micro			Only applicable with P8020 <sup>2)</sup>	
<b>Stainless steel micro flow-through measurement</b> PRM-100-SDTM-4					
 Available tube lengths: 100 mm Luer connection: Yes Flow-through: Yes Required sample volume <sup>1)</sup> : 1,3 ml/100 mm	<b>Abbreviation:</b> <b>PRM/</b> <b>P/</b> Polarimeter <b>R/</b> Tube <b>M/</b> Metal  <b>S/</b> Tube connection <b>D/</b> Flow-through <b>T/</b> Temperature-controlled <b>M/</b> Micro			Only applicable with P8020 <sup>2)</sup> Recommended micro measurement tube	

<sup>1)</sup> Details of the sample volume are “approximate values” and do not consider the filling level of the filling funnel or the respective product tolerances.

<sup>2)</sup> P8020 = Sample chamber bushing - It is required to organize the sample filling by a pump (hose bushing) or to enable the temperature control (temperature control bushing).

<sup>3)</sup> Temperature control is possible on request.


## POLARIMETER MEASUREMENT TUBE – TEMPERATURE-CONTROLLED (PELTIER TEMPERATURE CONTROL)

APPLICABLE FOR POLARIMETER						
MEASUREMENT TUBE	P8000 P8100 Without temperature control	P8000-P P8100-P Temperature control with Peltier technology	P8000-T P8100-T Temperature control circulating thermostat/temperature-controlled measurement tubes recommended	P3000 Without temperature control <sup>2)</sup>	P1000-LED Without temperature control	
Glass measurement tube (Peltier temperature control) PRG-100-EPT						
 Available tube lengths: 100 mm Luer connection: No Flow-through: Yes Required sample volume <sup>1)</sup> : 8 ml/100 mm	<b>Abbreviation:</b> <b>PRG/</b> <b>P/Polarimeter</b> <b>R/Tube</b> <b>G/Glass</b>  <b>EPT/Peltier</b> temperature control (with two filling openings)	Not applicable	Recommended glass measurement tube	Not applicable	Not applicable	Not applicable

<sup>1)</sup>Details of the sample volume are “approximate values” and do not consider the filling level of the filling funnel or the respective product tolerances.

<sup>2)</sup>Temperature control is possible on request.

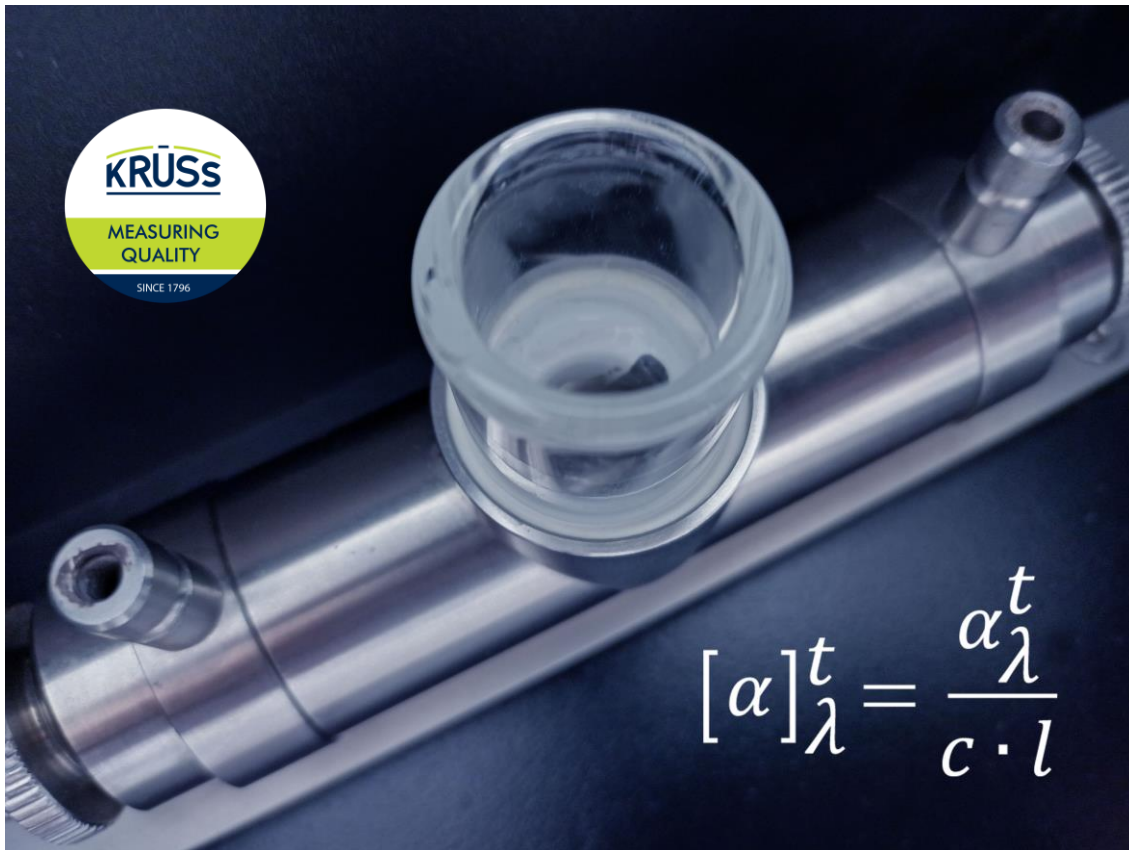
## POLARIMETER QUARTZ CONTROL PLATES

APPLICABLE FOR POLARIMETER					
Quartz control plates 	<b>P8000</b> <b>P8100</b> Without temperature control	<b>P8000-P</b> <b>P8100-P</b> Temperature control with Peltier technology	<b>P8000-T</b> <b>P8100-T</b> Temperature control circulating thermostat/ temperature-controlled measurement tubes recommended	<b>P3000</b> Without temperature control <sup>1)</sup>	<b>P1000-LED</b> Without temperature control
<b>Polarimeter Quartz control plate PQP models</b>					
<b>PQP+17</b> Angle of rotation: +17° (±1°), +50 °Z (±1 °Z)	Premium quartz control plate suitable for the whole product range, Accuracy: ±0.001°, With PTB-traceable factory certificate, Valid for PTB certificate, issuing of certificate on request, Wavelength: 589 nm, Temperature: 20 °C, Housing: Stainless steel				
<b>PQP+34</b> Angle of rotation: +34° (±1°), +99 °Z (±1 °Z)					
<b>PQP-17</b> Angle of rotation: -17° (±1°), -50 °Z (±1 °Z)					
<b>Polarimeter Quartz control plate PQE models</b>					
<b>PQE+17</b> Angle of rotation: +17° (±1°), +50 °Z (±1 °Z)	Standard quartz control plate suitable for the whole product range, Accuracy: ±0.005°, With PTB-traceable factory certificate, Not valid for PTB certificate, Wavelength: 589 nm, Temperature: 20 °C, Housing: Stainless steel				
<b>PQE+34</b> Angle of rotation: +34° (±1°), +99 °Z (±1 °Z)					
<b>PQE-17</b> Angle of rotation: -17° (±1°), -50 °Z (±1 °Z)					
<b>PQE-34</b> Angle of rotation: -34° (±1°), -99 °Z (±1 °Z)					

<sup>1)</sup>Temperature control is possible on request.

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