






Scope of this document

This document lists error and warning messages for DMA 4101/4501/5001 density meters equipped with software version 5.1.0 CLE.








Errors and Warnings

DMA 4101/4501/5001 Density Meters

Code	Message text / Cause of problem	How to handle	Instrument reaction, considering impacts on the currently executed process	Solving the problem	
				Level 1 (customer)	Level 2 (Anton Paar representative)
 Errors					
-2	Timeout Density: A timeout occurred. The measurement could not meet the defined stability criteria.	Problem must be solved before continuing. Error messages do not close automatically.	Error: A severe problem has occurred that needs to be solved before continuing with your measurements.	 Check the timeout setting first, then repeat the measurement and try deactivating density stability. Also consider the troubleshooting section in the reference guide.	If level 1 instructions do not solve your problem, contact your local Anton Paar representative, provide a diagnostics package, and add as much information as possible to help the Anton Paar support team: 1. Generate a diagnostics package. 2. Provide additional information, e.g. photos, videos, and a detailed description (how often did the problem occur? when? last step on the instrument before the problem appeared?)
-132	No valid temperature adjustment Density: No valid temperature adjustment stored: Default adjustment constants will be used. Measured values will not be correct.	Problem must be solved before continuing. Error messages do not close automatically.	Error: A severe problem has occurred that needs to be solved before continuing with your measurements.	 Reset to factory adjustment. It is also possible to restore a backup with valid adjustment constants or to enter valid temperature adjustment data.	
-134	Thermal runaway Density: Thermal runaway: cooling with max. current has no effect. Apply a temperature higher than the current temperature to re-activate the temperature control.	Problem must be solved before continuing. Error messages do not close automatically.	Error: A severe problem has occurred that needs to be solved before continuing with your measurements.	 Ensure that the instrument has reached ambient temperature and that the required environmental conditions are met. To perform measurements at temperatures more than 15 °C (27 °F) below ambient temperature, connect the cooling to an external thermostat. Also consider the troubleshooting section in the reference guide.	
-136	Board temperature overflow Density: SCU temperature control: board temperature overflow: electronic board temperature > 70 °C, temperature control is switched off	Problem must be solved before continuing. Error messages do not close automatically.	Error: A severe problem has occurred that needs to be solved before continuing with your measurements.	 Switch off the instrument and ensure that the required environmental conditions and the installation requirements of the instrument are met before you switch the instrument on again after 10 minutes.	







Errors and Warnings

DMA 4101/4501/5001 Density Meters

Code	Message text / Cause of problem	How to handle	Instrument reaction, considering impacts on the currently executed process	Solving the problem	
				Level 1 (customer)	Level 2 (Anton Paar representative)
-142	Cell temperature out of range Density: Cell temperature out of range: PT100 sensor not connected / defective: Cell temperature < -60 °C or > 250 °C	Problem must be solved before continuing. Error messages do not close automatically.	Error: A severe problem has occurred that needs to be solved before continuing with your measurements.	 Switch off the instrument and ensure that the installation requirements of the instrument are met before you switch the instrument on again after 10 minutes.	<p>If level 1 instructions do not solve your problem, contact your local Anton Paar representative, provide a diagnostics package, and add as much information as possible to help the Anton Paar support team:</p> <ol style="list-style-type: none"> 1. Generate a diagnostics package. 2. Provide additional information, e.g. photos, videos, and a detailed description (how often did the problem occur? when? last step on the instrument before the problem appeared?)
-144	Block temperature out of range Density: Block temperature out of range: PT100 sensor not connected / defective: Block temperature < -60 °C or > 250 °C	Problem must be solved before continuing. Error messages do not close automatically.	Error: A severe problem has occurred that needs to be solved before continuing with your measurements.	 Switch off the instrument and ensure that the installation requirements of the instrument are met before you switch the instrument on again after 10 minutes.	
-146	SCU board temperature out of range Density: SCU board temperature out of range (>70 °C)	Problem must be solved before continuing. Error messages do not close automatically.	Error: A severe problem has occurred that needs to be solved before continuing with your measurements.	 Switch off the instrument and ensure that the required environmental conditions and the installation requirements of the instrument are met before you switch the instrument on again after 10 minutes.	
-1011	Airpump: power supply voltage low The air pump is experiencing low supply voltage.	Problem must be solved before continuing. Error messages do not close automatically.	Error: A severe problem has occurred that needs to be solved before continuing with your measurements.	 Restart the instrument.	
-1021	Airpump: power supply current low The air pump has a low power supply current e.g. due bad connection or broken components.	Problem must be solved before continuing. Error messages do not close automatically.	Error: A severe problem has occurred that needs to be solved before continuing with your measurements.	 Restart the instrument.	
-1031	Airpump: power supply overcurrent The air pump is experiencing an overcurrent in the power supply e.g. due to a short circuit.	Problem must be solved before continuing. Error messages do not close automatically.	Error: A severe problem has occurred that needs to be solved before continuing with your measurements.	 Restart the instrument.	
-1101	Heatsink Temperature Sensor: invalid sensor value The heatsink temperature sensor has an invalid sensor value as it might be broken or is not connected.	Problem must be solved before continuing. Error messages do not close automatically.	Error: A severe problem has occurred that needs to be solved before continuing with your measurements.	 Restart the instrument.	







Errors and Warnings

DMA 4101/4501/5001 Density Meters

Code	Message text / Cause of problem	How to handle	Instrument reaction, considering impacts on the currently executed process	Solving the problem	
				Level 1 (customer)	Level 2 (Anton Paar representative)
-1111	Room Temperature Sensor: invalid sensor value The room temperature sensor has an invalid sensor value as it might be broken or is not connected.	Problem must be solved before continuing. Error messages do not close automatically.	Error: A severe problem has occurred that needs to be solved before continuing with your measurements.	 Restart the instrument.	<p>If level 1 instructions do not solve your problem, contact your local Anton Paar representative, provide a diagnostics package, and add as much information as possible to help the Anton Paar support team:</p> <ol style="list-style-type: none"> 1. Generate a diagnostics package. 2. Provide additional information, e.g. photos, videos, and a detailed description (how often did the problem occur? when? last step on the instrument before the problem appeared?)
-1121	Board Temperature Sensor: invalid sensor value The board temperature sensor has an invalid sensor value as it might be broken or is not connected.	Problem must be solved before continuing. Error messages do not close automatically.	Error: A severe problem has occurred that needs to be solved before continuing with your measurements.	 Restart the instrument.	
-1131	Airpressure Sensor: invalid sensor value The air pressure sensor has an invalid sensor value as it might be broken.	Problem must be solved before continuing. Error messages do not close automatically.	Error: A severe problem has occurred that needs to be solved before continuing with your measurements.	 Restart the instrument.	
-1141	Humidity Sensor: invalid sensor value The humidity sensor has an invalid sensor value as it might be broken or is not connected.	Problem must be solved before continuing. Error messages do not close automatically.	Error: A severe problem has occurred that needs to be solved before continuing with your measurements.	 Restart the instrument.	
-1201	Fan: fan speed is zero The fan speed is zero. The fan might be dirty, blocked or broken.	Problem must be solved before continuing. Error messages do not close automatically.	Error: A severe problem has occurred that needs to be solved before continuing with your measurements.	 Restart the instrument.	
-1301	Safety Relay: Maximum heatsink, room, board or peltier temperature exceeded The safety relay has detected that the maximum heatsink, room, board, or peltier temperature has been exceeded. The ambient temperature might be too high.	Problem must be solved before continuing. Error messages do not close automatically.	Error: A severe problem has occurred that needs to be solved before continuing with your measurements.	 Switch off the instrument and ensure that the required environmental conditions of the instrument are met before you switch the instrument on again after 10 minutes.	






Errors and Warnings

DMA 4101/4501/5001 Density Meters

Code	Message text / Cause of problem	How to handle	Instrument reaction, considering impacts on the currently executed process	Solving the problem	
				Level 1 (customer)	Level 2 (Anton Paar representative)
-1401	Extern CAN: Extern CAN supply switched off The external CAN supply has been switched off as the supply current of external modules exceeded the limit of 5A.	Problem must be solved before continuing. Error messages do not close automatically.	Error: A severe problem has occurred that needs to be solved before continuing with your measurements.	 Switch off the measurement system and ensure that the required environmental conditions of the instruments are met. Disconnect all modules before you switch the instrument on again after 10 minutes. Repeat the procedure by subsequently connecting the modules.	If level 1 instructions do not solve your problem, contact your local Anton Paar representative, provide a diagnostics package, and add as much information as possible to help the Anton Paar support team: 1. Generate a diagnostics package. 2. Provide additional information, e.g. photos, videos, and a detailed description (how often did the problem occur? when? last step on the instrument before the problem appeared?)
-1501	Safety Relay: Power-On Self-Test Failed The safety relay has failed the power-on self-test as it might be broken.	Problem must be solved before continuing. Error messages do not close automatically.	Error: A severe problem has occurred that needs to be solved before continuing with your measurements.	 Switch off the instrument and ensure that the required environmental conditions of the instrument are met before you switch the instrument on again after 10 minutes.	
-6120	No oscillation Density: No oscillation. Check the camera image for inhomogeneous filling.	Problem must be solved before continuing. Error messages do not close automatically.	Error: A severe problem has occurred that needs to be solved before continuing with your measurements.	 The measuring cell may only be partly filled. Check the filling and repeat the measurement. Also consider the troubleshooting section in the reference guide.	
-6122	Utube Broken error Density: Glass cell could be broken. This error might also appear due to inhomogeneous filling. If it persists, do not fill any liquids. Contact your Anton Paar representative.	Problem must be solved before continuing. Error messages do not close automatically.	Error: A severe problem has occurred that needs to be solved before continuing with your measurements.	 If this error persists, do not fill any liquids, turn off the instrument, and contact your local Anton Paar representative.	
-6140	No valid density adjustment Density: No valid density adjustment stored: Default adjustment constants will be used. Measured values will not be correct.	Problem must be solved before continuing. Error messages do not close automatically.	Error: A severe problem has occurred that needs to be solved before continuing with your measurements.	 Restore a backup with valid density adjustment data or perform a new density adjustment to save it as factory adjustment.	
-8000	Flash defective	Problem must be solved before continuing. Error messages do not close automatically.	Error: A severe problem has occurred that needs to be solved before continuing with your measurements.	 Restart the instrument.	



Errors and Warnings

DMA 4101/4501/5001 Density Meters

Code	Message text / Cause of problem	How to handle	Instrument reaction, considering impacts on the currently executed process	Solving the problem	
				Level 1 (customer)	Level 2 (Anton Paar representative)
 Warnings					
126	Board temperature warning Density: SCU board temperature >60 °C	Warnings can be closed manually if the operator considers the warning to be irrelevant or resolved.	Warning: A minor problem (may be temporary) or a reminder requires your attention.	 <p>Switch off the instrument and ensure that the required environmental conditions and installation requirements of the instrument are met before you switch the instrument on again after 10 minutes.</p>	If level 1 instructions do not solve your problem, contact your local Anton Paar representative, provide a diagnostics package, and add as much information as possible to help the Anton Paar support team: 1. Generate a diagnostics package. 2. Provide additional information, e.g. photos, videos, and a detailed description (how often did the problem occur? when? last step on the instrument before the problem appeared?)
1001	Heatsink Temperature too high The heatsink temperature is too high. The ambient temperature might be too high or the fan is dirty, blocked or broken.	Warnings can be closed manually if the operator considers the warning to be irrelevant or resolved.	Warning: A minor problem (may be temporary) or a reminder requires your attention.	 <p>Switch off the instrument and ensure that the required environmental conditions of the instrument are met before you switch the instrument on again after 10 minutes.</p>	
1011	Room Temperature too high The room temperature is too high or the fan is dirty, blocked or broken.	Warnings can be closed manually if the operator considers the warning to be irrelevant or resolved.	Warning: A minor problem (may be temporary) or a reminder requires your attention.	 <p>Switch off the instrument and ensure that the required environmental conditions of the instrument are met before you switch the instrument on again after 10 minutes.</p>	
1021	Board Temperature too high The DCB board temperature is too high. The ambient temperature might be too high or the fan is dirty, blocked or broken.	Warnings can be closed manually if the operator considers the warning to be irrelevant or resolved.	Warning: A minor problem (may be temporary) or a reminder requires your attention.	 <p>Switch off the instrument and ensure that the required environmental conditions of the instrument are met before you switch the instrument on again after 10 minutes.</p>	

Errors and Warnings

DMA 4101/4501/5001 Density Meters

Code	Message text / Cause of problem	How to handle	Instrument reaction, considering impacts on the currently executed process	Solving the problem	
				Level 1 (customer)	Level 2 (Anton Paar representative)
1101	<p>External CAN Supply Current too high</p> <p>The external CAN supply current is too high due to e.g. the current consumption of external modules.</p>	Warnings can be closed manually if the operator considers the warning to be irrelevant or resolved.	Warning: A minor problem (may be temporary) or a reminder requires your attention.	 <p>Switch off the measurement system and ensure that the required environmental conditions of the instruments are met. Disconnect all modules before you switch the instrument on again after 10 minutes. Repeat the procedure by subsequently connecting the modules.</p>	<p>If level 1 instructions do not solve your problem, contact your local Anton Paar representative, provide a diagnostics package, and add as much information as possible to help the Anton Paar support team:</p> <ol style="list-style-type: none"> 1. Generate a diagnostics package. 2. Provide additional information, e.g. photos, videos, and a detailed description (how often did the problem occur? when? last step on the instrument before the problem appeared?)
6106	<p>Filling warning Density</p> <p>Density: Filling warning. Check the camera image for bubbles or change the settings according to the sample type.</p>	Warnings can be closed manually if the operator considers the warning to be irrelevant or resolved.	Warning: A minor problem (may be temporary) or a reminder requires your attention.	 <p>A filling warning may be caused by a filling error. Some samples may generate a filling warning even when filled without bubbles (e.g. viscous or inhomogeneous samples). Check the filling first, then repeat the measurement. Also consider the troubleshooting section in the reference guide.</p>	