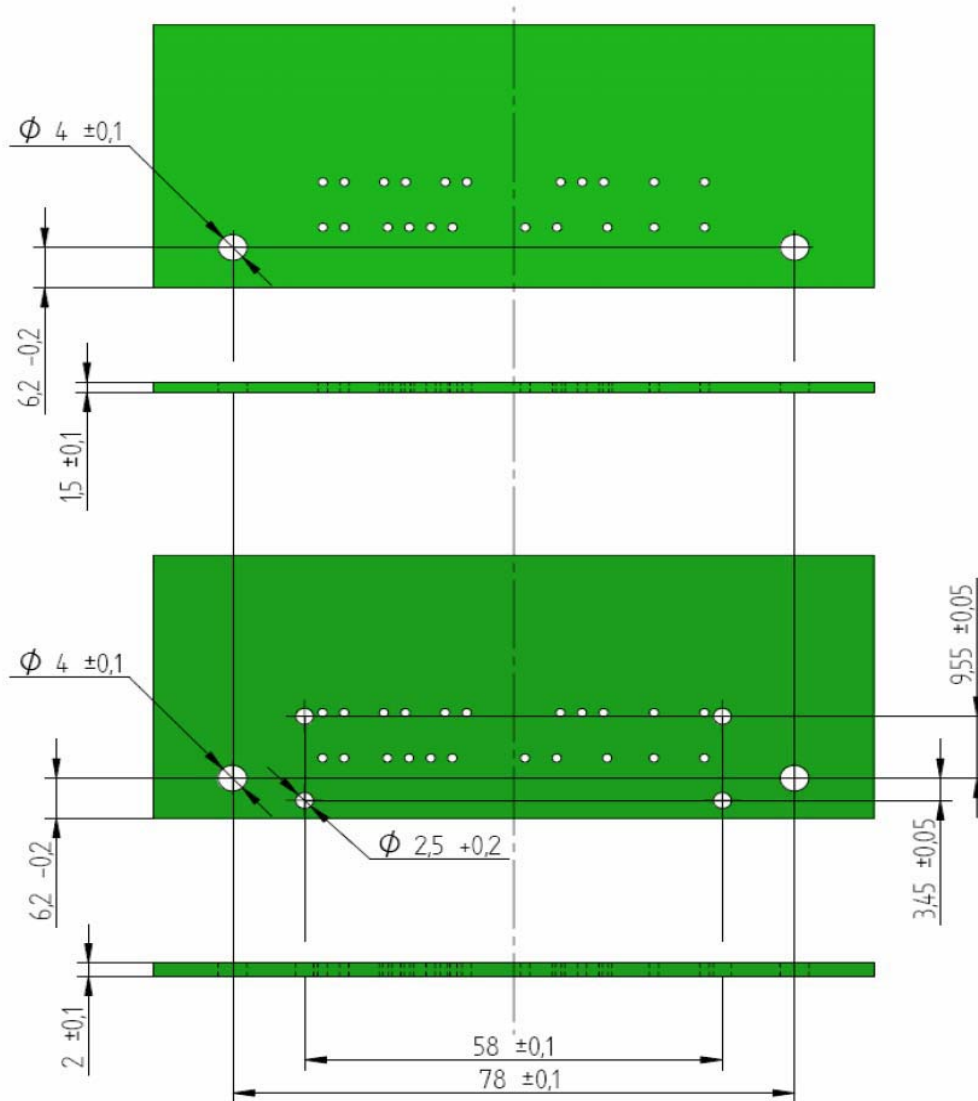


flow90 1

PCB Holes

Module with 1,5mm and 2mm thick PCB



Recommended hole (through hole plated) diameter on PCB for pins min. $\phi 1,2\text{mm}$
 If the module is assembled into 2 mm thick PCB, then the 4 pieces of $\phi 2,5$ mm holes are necessary in the PCB.
 In the fixing holes ($\phi 2,5$ mm and $\phi 4$ mm), plating is not allowed
 Dimensions are in mm

Handling Instructions

with respect to the PCB

- The module is to be fixed to the PCB by clipping it into the appropriate holes before pin soldering
For details see unit ' PCB Holes' on page 3
- After fixing, all pins are to be soldered into the PCB
The wave soldering is to not exceed 10s and 260°C temperature
- During assembly, the pins are not to be drawn or pushed more than $\pm 0.2\text{mm}$
or loaded with a pull force greater than 35N or push force greater than 5N
- The load of the pin is not to exceed $\pm 5\text{N}$ at a maximum substrate temperature of 100°C
- Vibration stress on the pins is to be avoided

with respect to the heatsink

- The heatsink surface must be clean and free of particles
- The flatness is to stay below 0.05 mm in 100 mm
- The surface roughness is not to exceed an R_z of 0.01 mm

with respect to the thermal paste

- The thermal conducting paste is to be applied to the entire module plate with a thickness of max. 0.05 mm
- Thicker thermal paste can potentially raise the value of R_{th}

with respect to the fastening screws to the heatsink

using a plain washer

- The screws are to be tightened using half torque first
- In the second step, all screws are to be tightened applying the full torque
- To be used is a DIN 125 or DIN 433 flat washer
- To be used is an M4 DIN 7985 screw
- To be applied is a mounting torque of $2.0\text{Nm} \leq M_a \leq 2.2\text{Nm}$

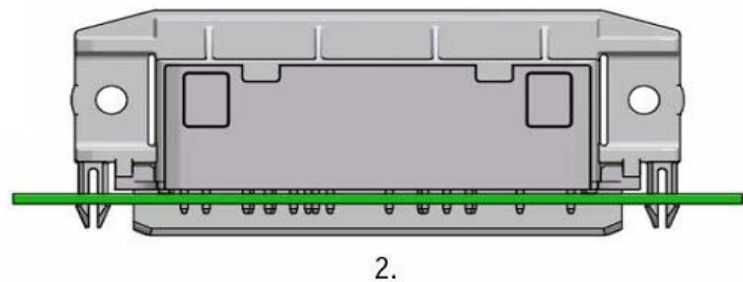
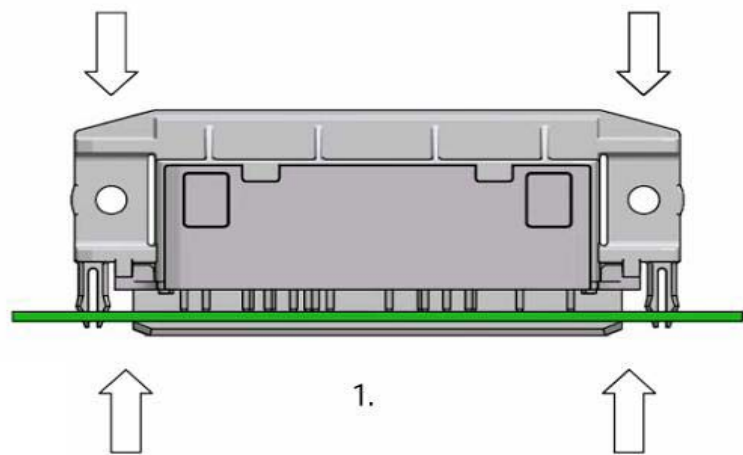
using a plain washer with a spring lock washer

- The screws are to be tightened using maximum torque
- To be used is a DIN 125 or DIN433 flat washer
- To be used is a DIN 127 or DIN128 spring washer
- To be used is an M4 DIN 7985 screw
- To be applied is a mounting torque of $2.0\text{Nm} \leq M_a \leq 2.2\text{Nm}$

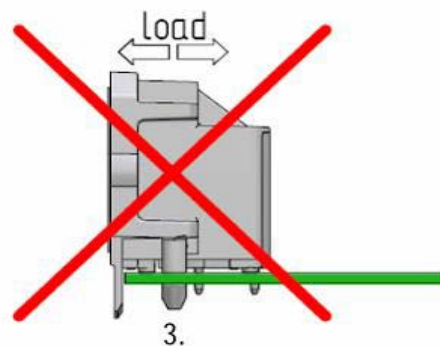
Mounting Instructions

Mounting for FLOW90 standard modules

1. Insert the module pins into the PCB holes, press the module into the PCB as shown in figure 1. until the clips are locked into position.



2. Module in place on PCB (figure 2.) The clips hold the right angle between substrate and PCB during the wave soldering process. Load is not allowed on the module before the end of the soldering (figure 3.)



PRODUCT STATUS DEFINITIONS

Datasheet Status	Product Status	Definition
Target	Formative or In Design	This datasheet contains the design specifications for product development. Specifications may change in any manner without notice. The data contained is exclusively intended for technically trained staff.
Preliminary	First Production	This datasheet contains preliminary data, and supplementary data may be published at a later date. Vincotech reserves the right to make changes at any time without notice in order to improve design. The data contained is exclusively intended for technically trained staff.
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