1 Sensor Performance

1.1 Humidity Sensor Performance

Parameter	Conditions	Value	Units
SHT30 Accuracy tolerance[1]	Typ.	±3	%RH
	Max.	Figure 2	%RH
SHT31 Accuracy tolerance[1]	Typ.	±2	%RH
	Max.	Figure 4	%RH
Repeatability[2]		0.13	%RH
Resolution	Typ.	0.05	%RH
Hysteresis	at 25°C	±0.8	%RH
Specified range[3]	extended[4]	0 to 100	%RH
Response time[5]	$\tau_{63\%}$	8[6]	s
Long-term drift	Typ.[7]	<0.25	%RH/yr

Table 1 Humidity sensor specification

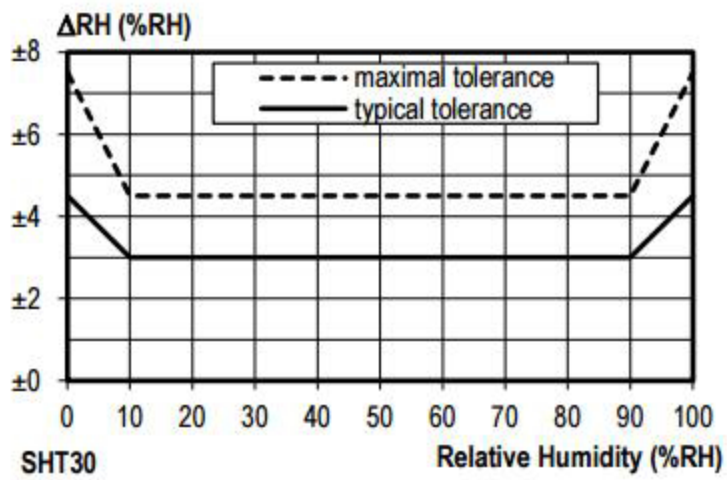

Figure 2 Tolerance of RH at 25°C for SHT30

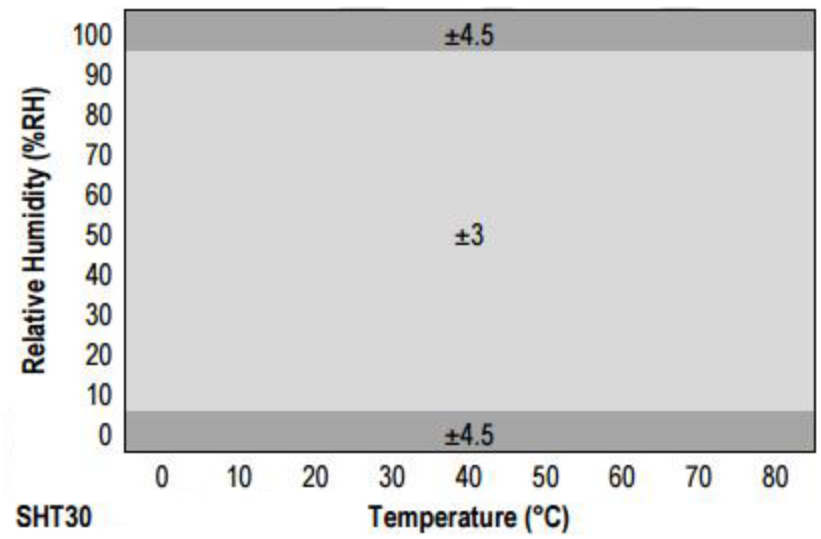

Figure 3 Typical tolerance of RH over T for SHT30

1.2 Temperature Sensor Performance

Parameter	Condition	Value	Units
Accuracy tolerance[1]	Typ. 10 to +55	±0.3	°C
Repeatability[2]		0.06	°C
Resolution	Typ.	0.05	°C
Specified Range	-	-40 to 125	°C
Response time [8]	$\tau_{63\%}$	>2	s
Long Term Drift	-	<0.03	°C/yr

Table 2 Temperature sensor specification

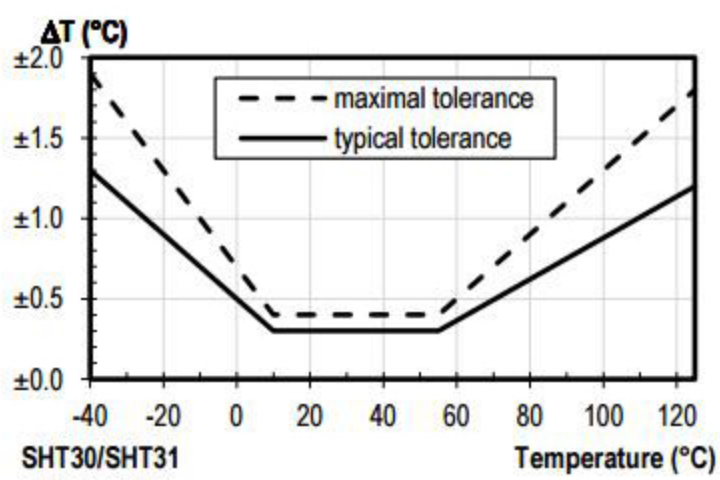

Figure 6 Tolerance of the temperature sensor in °C for SHT30 and SHT31