

ROAD SURFACE TEMPERATURE, ROAD CONDITIONS, WATER FILM, FREEZING POINT, RESIDUAL SALT DQA352, DQA353

These sensors accurately report the following parameters:



- ▶ Road surface temperature
- ▶ Road conditions
- ▶ Water film thickness on the pavement
- ▶ Freezing point temperature
- ▶ Residual salt (% and g/m²)



Different versions of the same sensor are made to measure also the underground temperatures using separate sensor units. Main difference between DQA352 and DQA353 is the better accuracy of the DQA353 in the Water film thickness and Freezing point temperature specifications.

DQA352 has RS485 output with an open protocol suitable for connection to LSI LASTEM and Boschung data loggers as well as third part integration systems. DQA353 has a Boschung proprietary protocol only. DQA352-353 sensors are made by Boschung Mecatronic AG.

Technical Specifications

Code	DQA352.0C DQA353.0C	DQA352.0E DQA353.0E	DQA352.1E DQA353.1E	DQA352.2E DQA353.2E
				
Including underground temperature sensors (number)	No	No	1	2
Application	Airport	Roads		
Housing	Included Housing with internal connectors. It allows a very easy and fast connection of the sensor when the housing is fixed on the road surface. It makes this sensor becomes very suitable in airports applications	Included Housing with internal terminals to sensors		
Cable	Not included BOS998 cable (each m) BOS999 connector	L= 30 m Included (connection by terminal inside the housing) Other cable length possible (BOS998)		



Common Technical Specifications

		DQA352	DQA420
Pavement surface temperature	Measurement range	-40÷80°C	-40÷75°C
	Accuracy	15÷10°C: ±0,2°C, or ± 0,8°C	
	Resolution	0,1°C	
Surface condition	Measurement	N.5 status: Dry, Wet, Moist, streaming water, slippery (EN15518-3)	
Water film thickness	Measurement range	0÷10 mm	
	Accuracy	0,2÷3 mm: ± 30%	0,05÷0,5 mm.: 0,05 mm 05÷3 mm: 10%
	Resolution	0,01 mm	
Freezing point temperature	Measurement range	-30÷0°C	
	Accuracy	-2,5÷0°C: ±0,5°C Otherwise: ±20%	-5÷0°C: ±0,5°C Otherwise: ±15%
	Resolution	0,1°C	
Residual salt	Measurement range	0-100%	
	Accuracy	±15%	
	Resolution	1%	
Salt quantity	Measurement range	0-255 g/m ²	
	Accuracy	±15%	
	Resolution	1 g/m ²	
Separate underground temperature (0, 1 or 2 temperatures). The "n" after the PN indicates the number of separate	Measurement range	-30÷75°C	
	Accuracy	1°C	
	Resolution	0,1°C	
	Cable length	43 cm	
Output	Output	RS485	
	Protocol	Open protocol E-Log compatibility	Boschung proprietary protocol
Power supply	Power supply	12÷24 Vdc	
	Power consumption	< 0,5W a 12 Vdc	
Others	Dimensions	<ul style="list-style-type: none"> • Sensor: 90 mm Ø; 42 mm depth • Housing (roads): 135 mm Ø; 51 mm depth • Housing (airports): 330x150x43 mm 	
	Weight	<ul style="list-style-type: none"> • Sensor only: 1,1 kg • Housing (roads): 0,5 kg 	
	Protection	IP68	
	CE	EN61000-6-1; EN61000-6-2; EN61000-6-3; EN61000-6-4	
	MTBF	>60.000 ore	



Accessories

	BOS998	Cable for DQA352-353.nC sensor Extra cable for DQA352-353.nE (each meter)
	BOS999	Connector for DQA352-353.nC sensor (to be purchased with the cable)
	MW3030	Prodofix resin for installation of the sensors housing inside the concrete

