

PAVEMENT SURFACE TEMPERATURE, ROAD CONDITIONS, THICKNESS OF WATER FILM, FREEZING POINT, RESIDUAL SALT

DQA352, DQA353



These sensors accurately report the following parameters:

- ▶ Pavement surface temperature
- ▶ Pavement 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.X and DQA353.X is the better accuracy of the DQA353 in the Water film thickness and Freezing point temperature specifications. DQA352.X and DQA353.X have RS485 output with an open protocol suitable for connection to LSI LASTEM as well as third part integration systems.

Technical Specifications

Code	DQA352.0 DQA353.0	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	Not included (see Accessories) 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. It allows a very easy and fast connection of the sensor when the housing is fixed on the road surface.		
Cable	Not included (see Accessories)	L= 30 m Included (connection by terminal inside the housing)		

Common Technical Specifications

		DQA352.X	DQA353.X
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 0.5...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 sensors.	Measurement range	-30...75°C	
	Accuracy	± 0.01°C	
	Resolution	0.1°C	
	Cable length	43 cm	
Output	Output	RS485	
	Protocol	Open protocol E-Log compatibility	
Power supply	Power supply	12...24 Vdc	
	Power consumption	< 0.5 W @ 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 • Housing (airports): 3.8 kg 	
	Protection	IP68	
	CE	EN61000-6-1; EN61000-6-2; EN61000-6-3; EN61000-6-4	
	MTBF	>60.000 h	

Accessories

	CCCFA2930	Connected cable for DQA352-353.0 sensor. L=30 m
	CCCFA2960	Connected cable for DQA352-353.0 sensor. L=60 m
	CCCFA2990	Connected cable for DQA352-353.0 sensor. L=90 m
	MG0350	Connector for DQA352-353.0 sensor (spare part)
	MW3032.R	Prodofix resin for installation of the sensors housing inside the concrete. 3 MW3032 are recommended for 2 pavement sensors. Weight: 3 kg
	DYA350	Case for DQA356.0 sensors