

LoRa® SPY Digital



Digital temperature recorder with a long-range LoRaWAN™ connectivity

Simplified metrology services



Presentation

The LoRa® SPY Digital sensor measures and records temperature with an external removable probe. Data are sent to the secure JRI secure Cloud by the LoRaWAN $^{\text{TM}}$ network of telecom operators members of LoRa Alliance $^{\text{TM}}$ or by a local network. In case of threshold excursions, real-time alerts are sent.

The LoRa® SPY Digital is designed to be used with JRI digital probes which have an internal memory to store their calibration adjustment coefficients and other metrological data. The calibration can be realized in laboratory by a simple exchange of the probe without monitoring interruption of your thermo-sensitive products.

Technical features

Interface Status LED, sensitive button On/Off, LCD display Measurement Depending on JRI digital probes Accuracy Depending on JRI digital probes Memory 10 000 data points Radio range Up to 16 km open field range Type of digital sensor Temperature sensor Operating conditions -30°C to +70°C Resolution 0.01 Measuring interval Adjustable from 1 min to 24h (local network model) Adjustable from 1 min to 24h (local network model) Adjustable from 1 min to 24h (local network model) Transmission and recording interval (internal memory) Adjustable from 1 min to 24h (local network model) Response time Φ ₉₀ < 5 min (depending on used probe)	Communication frequency	868 MHz	915 MHz
Accuracy Memory 10 000 data points Radio range Up to 16 km open field range Type of digital sensor Temperature/Humidity sensor Operating conditions -30°C to +70°C Resolution 0.01 Measuring interval Adjustable from 1 min to 24h (local network model) Adjustable from 1 min to 24h (operator network model) Adjustable from 1 mn to 24h Response time Φ₀₀ < 5 mn (depending on used probe) Protection IP40 Case Polycarbonate – Food contact Dimensions and weight 87 x 64 x 25 mm / ~ 100 g Power supply Replaceable Lithium 3,6v battery Battery lifetime 2 years Fixing Fixing eyelets and integrated magnets Supplied with User manual on www.jri-corp.com CE, ROHS, FCC, EN 300 220, NF EN 12830 (when the 06556 probe is used in storage and transport applications), RCM	Interface	Status LED, sensitive button On/Off, LCD display	
Memory Radio range Type of digital sensor Operating conditions Resolution Measuring interval (internal memory) Response time \$\mathcal{G}_{90}\$ Protection Case Polycarbonate - Food contact Dimensions and weight Power supply Retplaceable Lithium 3,6v battery Battery lifetime Supplied with Campliance Compliance Memory 10 000 data points Up to 16 km open field range Temperature/Humidity sensor Temperature/Lempsor Temperature/Humidity sensor Temperature/Lempsor Temperature/Humidity sensor Temperature/Humidity sensor Temperature/Lempsor Temperature/Lempsor Temperature/Lempsor Temperature/Lempsor Temperature/Lempsor Tempe	Measurement	Depending on JRI digital probes	
Type of digital sensor Type of digital sensor Temperature sensor Temperature/Humidity sensor Operating conditions -30°C to +70°C Resolution 0.01 Measuring interval Adjustable from 1 min to 24h (local network model) Adjustable from 15 min to 24h (operator network model) Adjustable from 1 min to 24h (perator network model) Adjustable from 1 min to 24h Response time σ₀₀ Case Polycarbonate − Food contact Dimensions and weight 87 x 64 x 25 mm / ~ 100 g Power supply Replaceable Lithium 3,6v battery Battery lifetime 2 years Fixing Fixing eyelets and integrated magnets Supplied with Case Blue JRI identification ring User manual on www.jri-corp.com CE, ROHS, FCC, EN 300 220, NF EN 12830 (when the 06556 probe is used in storage and transport applications), RCM	Accuracy		
Type of digital sensor Temperature sensor Temperature/Humidity sensor Operating conditions -30°C to +70°C Resolution 0.01 Measuring interval Adjustable from 1 min to 24h (local network model) Adjustable from 15 min to 24h (operator network model) Adjustable from 1 min to 24h (operator network model) Transmission and recording interval (internal memory) Adjustable from 1 mn to 24h Response time σ ₉₀ < 5 mn (depending on used probe) Protection IP40 Case Polycarbonate – Food contact Dimensions and weight 87 x 64 x 25 mm/~100 g Power supply Replaceable Lithium 3,6v battery Battery lifetime 2 years Fixing Fixing eyelets and integrated magnets Supplied with User manual on www.jri-corp.com CE, ROHS, FCC, EN 300 220, NF EN 12830 (when the 06556 probe is used in storage and transport applications), RCM	Memory	10 000 data points	
Temperature/Humidity sensor Operating conditions Resolution O.01 Measuring interval (internal memory) Adjustable from 1 min to 24h (local network model) Adjustable from 15 min to 24h (operator network model) Adjustable from 15 min to 24h (operator network model) Adjustable from 1 mn to 24h Adjustabl	Radio range	Up to 16 km open field range	
Resolution 0.01 Measuring interval Adjustable from 1 min to 24h (local network model) Adjustable from 15 min to 24h (operator network model) Transmission and recording interval (internal memory) Adjustable from 1 mn to 24 h Response time σ ₉₀ < 5 mn (depending on used probe) Protection IP40 Case Polycarbonate – Food contact Dimensions and weight 87 x 64 x 25 mm/~ 100 g Power supply Replaceable Lithium 3,6v battery Battery lifetime 2 years Fixing Fixing eyelets and integrated magnets Supplied with Blue JRI identification ring User manual on www.jri-corp.com CE, ROHS, FCC, EN 300 220, NF EN 12830 (when the 06556 probe is used in storage and transport applications), RCM	Type of digital sensor		
Measuring interval Adjustable from 1 min to 24h (local network model) Adjustable from 15 min to 24h (operator network model) Adjustable from 1 min to 24h (operator network model) Adjustable from 1 min to 24h (operator network model) Adjustable from 1 min to 24h (operator network model) Adjustable from 1 min to 24h (operator network model) Adjustable from 1 min to 24h (operator network model) Adjustable from 1 min to 24h (operator network model) Adjustable from 1 min to 24h (operator network model) Adjustable from 1 min to 24h (operator network model) Adjustable from 1 min to 24h (operator network model) Adjustable from 1 min to 24h (operator network model) Adjustable from 1 min to 24h (operator network model) Adjustable from 1 min to 24h (operator network model) Adjustable from 1 min to 24h (operator network model) Adjustable from 1 min to 24h (operator network model) Adjustable from 1 min to 24h (operator network model) Power supple < 5 min (depending on used probe) Power supple 87 x 64 x 25 mm / ~ 100 g Replace 87 x 64 x 25 mm / ~ 100 g Power supple 2 years Fixing Fixing eyelets and integrated magnets Stripe from 1 min to 24h Stripe from 1 m	Operating conditions	-30°C to +70°C	
Adjustable from 15 min to 24h (operator network model) Transmission and recording interval (internal memory) Response time \$\sigma_{90}\$	Resolution	0.01	
(internal memory) Response time \$\sigma_{90}\$ Protection Polycarbonate - Food contact Dimensions and weight Power supply Replaceable Lithium 3,6v battery Battery lifetime Pixing Fixing Fixing eyelets and integrated magnets Supplied with Campliance Supplied with Campliance Response time \$\sigma_{90}\$ Replaceable Lithium 3,6v battery Adjustable from 1 mn to 24 h Supplied on 1 mn to 24 h Replaceable proble in the problem of the	Measuring interval		
Protection Case Polycarbonate – Food contact Bimensions and weight Power supply Replaceable Lithium 3,6v battery Battery lifetime 2 years Fixing Fixing eyelets and integrated magnets Supplied with Blue JRI identification ring User manual on www.jri-corp.com CE, ROHS, FCC, EN 300 220, NF EN 12830 (when the 06556 probe is used in storage and transport applications), RCM		Adjustable from 1 mn to 24 h	
Case Polycarbonate – Food contact 87 x 64 x 25 mm / ~ 100 g Power supply Replaceable Lithium 3,6v battery Battery lifetime 2 years Fixing Fixing eyelets and integrated magnets Supplied with Blue JRI identification ring User manual on www.jri-corp.com CE, ROHS, FCC, EN 300 220, NF EN 12830 (when the 06556 probe is used in storage and transport applications), RCM	Response time σ_{90}	< 5 mn (depending on used probe)	
Dimensions and weight Power supply Replaceable Lithium 3,6v battery Battery lifetime 2 years Fixing Fixing eyelets and integrated magnets Blue JRI identification ring User manual on www.jri-corp.com CE, ROHS, FCC, EN 300 220, NF EN 12830 (when the 06556 probe is used in storage and transport applications), RCM	Protection	IP40	
Power supply Replaceable Lithium 3,6v battery 2 years Fixing Fixing eyelets and integrated magnets Supplied with User manual on www.jri-corp.com CE, ROHS, FCC, EN 300 220, NF EN 12830 (when the 06556 probe is used in storage and transport applications), RCM	Case	Polycarbonate – Food contact	
Fixing Fixing Fixing eyelets and integrated magnets Supplied with Supplied with Compliance Blue JRI identification ring User manual on www.jri-corp.com CE, ROHS, FCC, EN 300 220, NF EN 12830 (when the 06556 probe is used in storage and transport applications), RCM	Dimensions and weight	87 x 64 x 25 mm / ~ 100 g	
Fixing Fixing eyelets and integrated magnets Supplied with Blue JRI identification ring User manual on www.jri-corp.com CE, ROHS, FCC, EN 300 220, NF EN 12830 (when the 06556 probe is used in storage and transport applications), RCM	Power supply	Replaceable Lithium 3,6v battery	
Supplied with Blue JRI identification ring User manual on www.jri-corp.com CE, ROHS, FCC, EN 300 220, NF EN 12830 (when the 06556 probe is used in storage and transport applications), RCM	Battery lifetime	2 years	
User manual on www.jri-corp.com CE, ROHS, FCC, EN 300 220, NF EN 12830 (when the 06556 probe is used in storage and transport applications), RCM	Fixing	Fixing eyelets and integrated magnets	
Compliance NF EN 12830 (when the 06556 probe is used in storage and transport applications), RCM	Supplied with		
Standard calibration points Depending on the JRI digital probe	Compliance	NF EN 12830 (when the 06556 probe is used in storage and	
	Standard calibration points	Depending on the JRI digital probe	

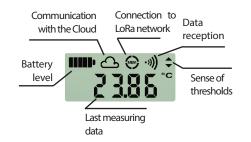
Benefits

Easy-to-use
 The recorder is ready to-use and has operating and alarm lights



- Excellent measurement accuracy
- Several modes of data exploitation





PART NRS

11809E: LoRa SPY Digital without probe 868 MHz 11809E: LoRa SPY Digital without probe 868 MHz (Without battery)

(Without battery)
12276E: LoRa SPY Digital without probe 915 MHz
12276X: LoRa SPY Digital without probe 915 MHz
(Without battery)

(Without battery) 13628E: LoRa SPY Digital without probe 915 MHz Australia 13628X: LoRa SPY Digital without probe 915 MHz Australia (Without battery)

JRI SAS

Logistics Pole / 2 Rue de la Voivre / PA Technoland / BP 21 / 25490 FESCHES LE CHÂTEL / France SIRET 380 332 858 00030 - Ph.: +33 (0)3 81 30 68 04 / sales@group-mms.com

JRI Digital probes compatibilty

Ref. 12350: DIGITAL SENSOR EVOLUTION Digital temperature probe, flat cable 3m (also available in incubator version)

Ref. 12348: DIGITAL SENSOR EVOLUTION Digital temperature probe, round cable 40 cm

Ref. 12349: DIGITAL SENSOR EVOLUTION Digital temperature probe, flat cable 70 cm (incubator version)

Ref. 12347: DIGITAL SENSOR EVOLUTION Digital temperature and humidity probe-30°C to +70°C and 0-100% RH

Ref. 12204: DIGITAL SENSOR EVOLUTION Digital probe low-temperature 0°C to -200°C

Ref. 12350 4: DIGITAL SENSOR X^2 Digital temperature probe, flat cable $3m(-40^\circ + 80^\circ C)$, with X^2 modeling

 $Ref.\,12348\,4: DIGITAL\,SENSOR\,X^2\,Digital\,temperature\,probe, round\,cable\,40\,cm\,(-40^{\circ}+80^{\circ}C), with\,X^2\,modeling$

Ref. 12349 4: DIGITAL SENSOR X^2 Digital temperature sensor, flat cable 70 cm with IP67 connector (-40° +80°C) and X^2 modeling

 $Ref.\,12204\,4: DIGITAL\,SENSOR\,X^2\,Digital\,probe\,low-temperature\,0^\circ\!C\,to\,-200^\circ\!C\,with\,3m\,cable\,and\,X^2\,modeling$

Ref. 12347 4: DIGITAL SENSOR X^2 TH Digital temperature and humidity probe (-30°+70°C/0-100%RH), with X^2 modeling

