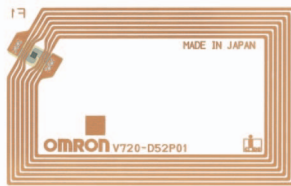
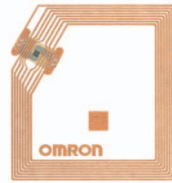


V720-series Electromagnetic Inductive RFID System Tag Inlets V720□-D□□P□□-R□K



V720-D52P01
V720S-D13P01



V720-D52P02
V720S-D13P02



V720-D52P03



V720-D52P04

■ Product Description

Smart Labels are Radio Frequency Identification (RFID) tags from OMRON that conform to the international standard ISO 15693. Smart Labels are super thin and highly flexible, making them the most cost-effective of all ID tag products to date, and well suited to a wide range of applications.

- Airport baggage handling systems
- Museum collection management
- Supply chain management systems
- Designer brand product control
- Library book and document management
- Facility and equipment maintenance

Combined with OMRON's ID Controllers and Read Write Antennas, the Tag Inlets are provided for system integrators to use in building RFID systems, converters considering the marketing of ID tags, and bar code equipment manufacturers who want to add RFID labels to their existing line of bar code labels.

■ Features

- Conform to ISO 15693, the international standard for contactless IC cards.
- Apply I-CODE chip technology from Philips Semiconductors. Both I-CODE1 and I-CODE SLI types are available

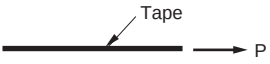
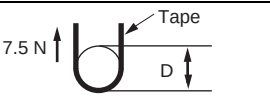
■ Benefits

- Thin and flexible.
- Withstand bending.
- Easy secondary processing onto business forms (roll-to-roll).

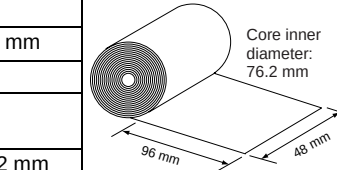
■ General Specifications 1

Item	V720-D52P□□	V720S-D13P□□ (Available soon)
Applicable chip	I-CODE1	I-CODE SLI
Memory capacity	44 bytes (user area)	112 bytes (user area)
Memory type	64-byte EEPROM	128-byte EEPROM
Communications frequency	13.56 MHz	
Data retention time	10 years after data is written (at 55°C max.)	
Number of overwrites	100,000 times for each address	
Ambient temperature in operation	-10 to 55°C (with no icing)	
Ambient temperature in storage	-30 to 70°C (with no icing)	
Heat resistance	No communications error after leaving the product for 250 hours at 85°C	
Cold resistance	No communications error after leaving the product for 250 hours at -30°C	
Thermal shock resistance	No communications error after 100 cycles between 85°C and -30°C, holding 30 minutes at each temperature	
Vibration resistance	Destruction: 10 Hz to 2 kHz, 1.5-mm double amplitude, 150-m/s ² acceleration with 10 sweeps of 11 minutes each in X, Y, and Z directions	
Shock resistance	Destruction: 500 m/s ² 3 times each in X, Y, and Z directions	
Moisture resistance	No communications error after leaving the product for 250 hours at 85°C and 85% humidity	

General Specifications 2

Item	V720-D52P01 V720S-D13P01	V720-D52P02 V720S-D13P02	V720-D52P03	V720-D52P04
Tape tension (P)	$< 10 \text{ N}$ 			
Bending diameter (D)	$> 20 \text{ mm dia.}$ 			
Static pressure (P)	$< 10 \text{ MPa (10 N/mm}^2\text{)}$ 			

Dimensions

Item	V720-D52P01 V720S-D13P01	V720-D52P02 V720S-D13P02	V720-D52P03	V720-D52P04	Dimensions of Tag Inlets 
Width	48 ±0.3 mm				
Length per piece	96 ±0.3 mm ^(*)	48 ±0.3 mm	32 ±0.3 mm	32 ±0.3 mm	
Thickness at electronic parts	270+/-5 μm				
Overall thickness of copper antenna coil	50 +10 μm/-0 μm				
Size of antenna coil	46 × 75 mm	46 × 43 mm	Diameter 21	16.5 × 22 mm	

Tag Inlet Roll Delivery Form

Item	V720-D52P01 V720S-D13P01	V720-D52P02 V720S-D13P02	V720-D52P03	V720-D52P04
Appearance	Single-row roll form			
Number of functional units on 1 roll	1,000 pcs. (V720□-D□□P-R1K) and 5,000 pcs. (V720□-D□□P-R5K)			
Sheet length (1,000 pcs./5,000 pcs.)	Approx. 100/500 m	Approx. 50/250 m	Approx. 33/167 m	Approx. 33/167 m
Roll core	Paper core, inner diameter of 3 inches, outer diameter of 5 inches			
Outer diameter of roll (1,000 pcs./5,000 pcs.)	160/260 mm	Consult your OMRON dealer.		
Weight (1,000 pcs./5,000 pcs.)	0.7/2.4 kg	Consult your OMRON dealer.		
Identification of roll	Label on inner core with roll No., date of production, and type			

Communications Distance ^(*1) (Measured at 25°C)

Read Write Antennas	V720-D52P01 V720S-D13P01	V720-D52P02 V720S-D13P02	V720-D52P03	V720-D52P04
V720S-H01	0 to 280 mm	0 to 220 mm	0 to 80 mm	0 to 80 mm
V720S-HMC73□	0 to 45 mm	0 to 45 mm	0 to 18 mm ^(*2)	0 to 18 mm ^(*2)

*1: The communications distance may vary depending on surrounding noise and equipment.

*2: The communications distance for writing is 5 to 18 mm.

*3: When processing the inlet with other materials, the communications distance may be affected if the inlet is subjected to high temperatures or pressure. Consult with your OMRON representative.

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.

To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

Cat. No. S901-E1-04 In the interest of product improvement, specifications are subject to change without notice.

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RFID Project Group

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