

[1/11]

[Issue No.] FA-A-0062-B
[Title] Product discontinuation of ID system D-2N series
[Date of Issue] June 2009(Ver. B: April 2015)
[Relevant Models] ID system D-2N series

Thank you for your continued support of Mitsubishi ID system.

Production of all ID system D-2N series models will be discontinued.

#### 1. Models to be discontinued (24 models)

Product name	Model	Remarks
Batteryless data carrier	D-2N03PS	Mounted on nonmetal, plate type, memory capacity of 320 bytes
	D-2N03PM	Mounted on metal, plate type, memory capacity of 320 bytes
Reader/writer	D-2N422RW	Standard type, cable length: 10m
	D-2N422RWS	Compact type, cable length: 10m
	D-2N422RW-C2	Standard type, cable length: 2m
	D-2N422RWS-C2	Compact type, cable length: 2m
ID interface module	AD35ID1	Compatible with A and QnA series. 1-channel reader/writer connection
	AD35ID2	Compatible with A and QnA series. 2-channel reader/writer connection
	A1SD35ID1	Compatible with AnS and QnAS series. 1-channel reader/writer connection
	A1SD35ID2	Compatible with AnS and QnAS series. 2-channel reader/writer connection
	QD35ID1	Compatible with Q series. 1-channel reader/writer connection
	QD35ID2	Compatible with Q series. 2-channel reader/writer connection
	AJ65BT-D35ID2	For CC-Link, 2-channel reader/writer connection
ID controller	D-2N232IF2	For RS-232C, 2-channel reader/writer connection
Software package	SW0D5F-DIDP	Communication library for general-purpose personal computers
Cable	D-NS422CAB10	10m cable for extension of a reader/writer, D-2N422RW(-C2) or
		D-2N422RWS(-C2)
	D-NS422CAB20	20m cable for extension of a reader/writer, D-2N422RW(-C2) or
		D-2N422RWS(-C2)
	D-NS422CAB40	40m cable for extension of a reader/writer, D-2N422RW(-C2) or
		D-2N422RWS(-C2)
	D-NS422CAB100	100m cable for extension of a reader/writer, D-2N422RW(-C2) or
		D-2N422RWS(-C2)
Handy controller	D-20HC	Handy controller with Japanese display (supplied with a power supply
		adapter and a rechargeable battery)
	D-20HC-E	Handy controller with English display (supplied with a power supply adapter
		and a rechargeable battery)
	D-20HC-PS	Power supply adapter
	D-20HC-BAT	Rechargeable battery
	D-2N20HC-RW	Reader/writer for handy controller

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#### 2. Schedule

Order acceptance: Through December 31, 2010

Production discontinuation: January 31, 2011

#### 3. Reasons for discontinuing production

Some parts of the products are now obsolete. Therefore, we will have difficulty to maintain the production system.

#### 4. Repair acceptance

• Repair acceptance: Through January 31, 2018 (For 7 years after production discontinuation) Repair of a data carrier will be accepted only when it is defective.

Note that repair of a data carrier that has reached the end of its write life is not acceptable. It is advisable to have a sufficient quantity of spares.

#### 5. Alternative models

There are no alternative Mitsubishi models. Therefore, please consider using our partner manufacturer's products (Balluff ID system "BIS M series", B & PLUS ID system "Z series"), which can be connected to Mitsubishi programmable controllers.

#### 6. Replacement with Balluff ID system "BIS M series" or B & PLUS ID system "Z series"

Balluff ID system "BIS M series" models or B & PLUS ID system "Z series" models are recommended as the alternatives of Mitsubishi ID system D-2N series models because they are connectable to Mitsubishi programmable controllers.

For relevant models, refer to Table 6.5 and 6.6 (pages 9/11 to 10/11.)

For details of the Balluff ID system "BIS M series" and B & PLUS ID system "Z series", please contact Balluff, Inc.

Balluff Inc.

Website address: www.balluff.com

#### (1) Features of the BIS M series

- Batteryless and electromagnetic induction type like the D-2N series
- The data carrier (BIS M-125-01/L) has a larger memory capacity (752 bytes) than the D-2N series, and is fully compatible with respect to the external dimensions.
- ID controllers for MELSEC-Q and for CC-Link (compatible with Balluff or Mitsubishi sequence programs) are available.

#### (2) Features of the Z series

- Batteryless and electromagnetic induction type like the D-2N series
- The data carrier (Z1-AA04-02K) has a larger memory capacity (2K bytes) than the D-2N series, and is fully compatible with respect to the external dimensions.
- The data carrier (Z1-AA04-02K) has a larger number of writes (unlimited) than the D-2N series.
- The data carrier (Z1-AA04-02K) has a larger operating temperature range (-25 to +70<sup>°</sup>C) than the D-2N series.
- ID controllers for MELSEC-Q and for CC-Link (compatible with B & PLUS or Mitsubishi sequence programs) are available.
- ID system can be configured at low cost.

#### (3) Precautions on replacement

Take into account the following before replacement because there are some differences depending on the model.

#### (a) Installation conditions

- Depending on the conditions of the data carrier (such as whether it is mounted on a metal or nonmetallic surface), the maximum communication distance varies. Therefore, consider the communication distance in the actual conditions.
  - If a data carrier of the same external dimensions (BIS M-125-01/L, Z1-AA04-02K) is used, the communication distance decreases up to 12mm (BIS M series) or up to 10mm (Z series) when it is mounted on a nonmetallic surface.
  - (Non-metal mount, reading: from 40mm to 28mm for the BIS M series, from 40mm to 30mm for the Z series)
- Influence caused by the surrounding environment (noise) differs depending on the operating environment. Checking the communication condition in the actual environment is recommended.
- The reader/writers are different in installation and external dimensions.
- The maximum cable extension distance is 25m.

  If a distance longer than 25m is required, take action such as using an ID controller for CC-Link.
- For mobile communication, check whether communication at the present mobile speed is available after replacement or not. (The communication distance also needs to be adjusted according to the mobile speed.)

#### (b) Use of the alternatives with Mitsubishi ID system D-2N series (compatibility)

The BIS M series or Z series data carriers, reader/writers, ID controllers, extension cables and other products cannot be used with the D-2N series products.

The same series products must be used.

The following items are compatible between the D-2N and BIS M series or between the D-2N and Z series, and the relevant products can be replaced easily.

	D-2N series	BIS M series	Z series	Description
Compatible item				
ID controller instructions for MELSEC-Q series	QD35ID1 (1 channel) QD35ID2 (2 channels)	BIS M-688-002 (2 channels)	Z4-Q002 (2 channels)	Existing sequence programs used on the QD35ID1 and QD35ID2 can be utilized. Dedicated instructions are supported. (Only the BIS M series or Z series ID controller with 2 channels can be used.)
ID controller instructions for CC-Link	AJ65BT-D35ID2 (2 channels)	BIS M-689-002 (2 channels)	Z4-C002 (2 channels)	Existing sequence programs used on the AJ65BT-D35ID2 can be utilized.
External dimensions of data carrier	D-2N03PS (mounted on nonmetal) D-2N03PM (mounted on metal)	BIS M-125-01/L	Z1-AA04-02K	Because the external and installation dimensions are the same, the alternative model can be installed in the same location without change.

### (c) Oil resistance\*1

#### 1) Oil resistance of the BIS M series

The material of the data carrier (BIS M-125-01/L) is PBT and epoxy resin filling, and the housing of the reader/writer (BIS M-300-001-S115) is made of nickel-plated brass. Therefore, these products have excellent oil resistance.

#### 2) Oil resistance of the Z series

The data carrier (Z1-AA04-02K) and the housing of the reader/writer (Z3-A010-CN) are made of PBT. Therefore, these products have excellent oil resistance.

\*1: Oil resistance varies depending on the oil type or operating environment. Previous checking is recommended.

#### (d) Others

#### 1) BIS M series

- The number of writes to the data carrier (BIS M-125-01/L) is changed from 300,000 times (D-2N series, -20 to +60  $^{\circ}$ C) to 100,000 times (BIS M-125-01/L, -25 to +70  $^{\circ}$ C).
  - If the number of writes is an important issue, use an ISO15693-compliant data carrier. (The external dimensions are different.)
- The storage ambient temperature for the data carrier (BIS M-125-01/L) is changed from -40 to +125℃ (D-2N series) to -40 to +85℃ (BIS M-125-01/L).

The storage ambient temperature for an ISO15693-compliant data carrier is -25 to +85℃.

#### 2) Z series

The storage ambient temperature for the data carrier (Z1-AA04-02K) is changed from -40 to +125<sup>°</sup>C (D-2N series) to -40 to +85<sup>°</sup>C (Z1-AA04-02K).

The storage ambient temperature for data carriers with no dimensional and installation compatibility (Z1-FA01-128, Z1-E02-128, Z1-B011-128) is -25 to +120 $^{\circ}$ C.

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#### (4) Performance comparison

Table 6.1 Data carrier performance comparison between Mitsubishi ID system D-2N series and Balluff ID system BIS M series (nonmetal-mount type data carrier)

O: Compatible,  $\triangle$ : Partially changed, -: Incompatible

			Model	Mitsubishi D-2N se	ries	Balluff BIS M serie	es				
Item		D-2N03PS		BIS M-125-01/L		Compa tibility	BIS M-111-02/L		Compa tibility		
Standa	ard			-		ISO14443		-	ISO15693		-
Memo	ry capacity			320 bytes (EEPROM	1)	752 bytes*1 (EEPR	OM)	0	2000 bytes*1 (FRAM	1)	0
Transr	mission frequency 409.6kHz (receiving) 13.56MHz - 13.56MHz 204.8kHz (sending)			-							
	ommunication		Read	18mm	40mm	20mm	28mm	Δ	28mm	45mm	0
distand conditi	ce (Varies by op ons)	erating	Write	18mm	30mm	20mm	28mm	Δ	28mm	45mm	0
Life	No. of		Read	Unlimited		Unlimited		0	Unlimited		0
	communicatio	ns	Write	300,000 times (-20 to 100,000 times (+61 to	,	100,000 times			10 billion times		0
	Data retention	1		10 years after data writing		10 years after data writing		0	10 years after data writing		0
Opera	ting ambient ten	nperatui	е	-20 to +70℃		-25 to +70℃		0	-25 to +70℃		0
Storag	Storage ambient temperature		-40 to +125℃		-40 to +85℃		Δ	-25 to +85℃		Δ	
Protec	tion rating			IP67		IP67		0	IP67		0
Materi	al			PBT, urethane resin	filling	PBT, epoxy resin filling		-	PA6		-
Extern	al dimensions			30×30×6mm	×30×6mm		30×30×6mm		φ30×2.5mm		-
Shape	/Installation met	hod		Plate/Screw type		Plate/Screw type		0	Round/Screw type		-
Comm	unication time	Read	20	65ms		BIS M-688-001: 80ms*2		Δ	BIS M-688-001: 90ms <sup>*2</sup>		Δ
	en data carrier		words			BIS M-688-002: 130ms <sup>*3</sup>		Δ	BIS M-688-002: 180ms <sup>*3</sup>		Δ
	and reader/writer (controller)) Write 20 120m words		120ms		BIS M-688-001: 90ms <sup>*2</sup> BIS M-688-002: 210ms <sup>*3</sup>		О △	BIS M-688-001: 120ms <sup>*2</sup> BIS M-688-002: 320ms <sup>*3</sup>		О Д	
Applica	Applicable reader/writer			D-2N422RWS(-C2)	D-2N422RW(-C2)	BIS M-300-001-S115	BIS M-301-001-S115	-	BIS M-300-001-S115	BIS M-301-001-S115	-
				Compact PBT type, urethane resin filling	Standard PBT type, urethane resin filling	Cylindrical nickel-plated brass	Large housing, PBT		Cylindrical nickel-plated brass	Large housing, PBT	

<sup>\*1:</sup> When the bank function is enabled for the ID controller (that supports Mitsubishi sequence programs), available memory capacity is 688 bytes.

<sup>\*2:</sup> Communication time of the ID controller for MELSEC-Q (supporting Balluff sequence programs only). Equivalent to that of the ID controller for CC-Link, BIS M-689-001.

<sup>\*3:</sup> Communication time of the ID controller for MELSEC-Q (supporting Mitsubishi sequence programs). Equivalent to that of the ID controller for CC-Link, BIS M-689-002.

Table 6.2 Data carrier performance comparison between Mitsubishi ID system D-2N series and Balluff ID system BIS M series (metal-mount type data carrier)

O: Compatible,  $\triangle$ : Partially changed, -: Incompatible

		Model	Mitsubishi D-2N series	Balluff BIS M series			
Item			D-2N03PM	BIS M-125-01/L	Compatibility	BIS M-122-02/A	Compatibility
Standard		-	ISO14443	- ISO15693		-	
Memory capacity			320 bytes (EEPROM)	752 bytes <sup>*1</sup> (EEPROM)	0	2000 bytes <sup>*1</sup> (FRAM)	0
Transmission frequen	су		409.6kHz (receiving)	13.56MHz	-	13.56MHz	-
			204.8kHz (sending)				
Max. communication		Read	15mm	15mm	0	6mm	Δ
(Varies by operating c	onditions)	Write	12mm	15mm	0	6mm	Δ
Life No. of		Read	Unlimited	Unlimited	0	Unlimited	0
communica	tions	Write	300,000 times (-20 to +60°C)	100,000 times	Δ	10 billion times	0
			100,000 times (+61 to +70°C)				
Data retenti	on		10 years after data writing	10 years after data writing	0	10 years after data writing	0
Operating ambient ter	Operating ambient temperature		-20 to +70℃	-25 to +70℃	0	-25 to +70℃	0
Storage ambient temp	torage ambient temperature		-40 to +125℃	-40 to +85℃	Δ	-25 to +85℃	Δ
Protection rating			IP67	IP67	0	IP67	0
Material			PBT, urethane resin filling	PBT, epoxy resin filling	-	PA12	-
External dimensions			30×30×6mm	30×30×6mm	0	φ10×4.5mm	-
Shape/Installation me	thod		Plate/Screw type	Plate/Screw type	0	Round	-
Communication time	Read	20	65ms	BIS M-688-001: 80ms*2	Δ	BIS M-688-001: 90ms*2	Δ
(between data carrier		words		BIS M-688-002: 130ms*3	Δ	BIS M-688-002: 180ms <sup>*3</sup>	Δ
and reader/writer	Write	20	120ms	BIS M-688-001: 90ms <sup>*2</sup>	0	BIS M-688-001: 120ms*2	0
(controller))	(controller)) words			BIS M-688-002: 210ms*3	Δ	BIS M-688-002: 320ms*3	Δ
Applicable reader/writ	er		D-2N422RWS(-C2)	BIS M-300-001-S115	-	BIS M-302-001-S115	-
			Compact PBT type, urethane resin	Cylindrical nickel-plated brass		Cylindrical nickel-plated brass	
			filling				

<sup>\*1:</sup> When the bank function is enabled for the ID controller (that supports Mitsubishi sequence programs), available memory capacity is 688 bytes.

<sup>\*2:</sup> Communication time of the ID controller for MELSEC-Q (supporting Balluff sequence programs only). Equivalent to the ID controller for CC-Link, BIS M-689-001.

<sup>\*3:</sup> Communication time of the ID controller for MELSEC-Q (supporting Mitsubishi sequence programs). Equivalent to the ID controller for CC-Link, BIS M-689-002.

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Table 6.3 Data carrier performance comparison between Mitsubishi ID system D-2N series and B & PLUS K.K. ID system Z series (nonmetal-mount type data carrier)

O: Compatible,  $\triangle$ : Partially changed, -: Incompatible

			Model	Mitsubishi D-2N sei	ries	B & PLUS Z ser	ies						
Item				D-2N03PS		Z1-AA04-02K	Compa tibility	Z1-FA01-128	Compa tibility	Z1-EC02-128	Compa tibility	Z1-B011-128	Compati bility
Standa	ard			-		ISO15693	-	ISO15693	-	ISO15693	-	ISO15693	-
Memo	ry capacity			320 bytes (EEPROM	1)	2K bytes <sup>*1</sup> (FRAM)	0	112 bytes (EEPROM)	Δ	112 bytes (EEPROM)	Δ	112 bytes (EEPROM)	Δ
Transı	mission fred	quency		409.6kHz (receiving) 204.8kHz (sending)	)	13.56MHz	-	13.56MHz	-	13.56MHz	-	13.56MHz	-
Max. o	communica	tion	Read	18mm	40mm	30mm	Δ	35mm	Δ	34mm	Δ	45mm	0
	ce (Varies ting condition	-	Write	18mm	30mm	30mm	0	35mm	0	34mm	0	45mm	0
Life	No. of		Read	Unlimited		Unlimited	0	Unlimited	0	Unlimited	0	Unlimited	0
	communi	cations	Write	300,000 times (-20 to 100,000 times (+61 to	,	Unlimited	0	100,000 times	Δ	100,000 times	Δ	100,000 times	Δ
	Data rete	ntion		10 years after data w	riting	10 years after data writing	0						
Opera	Operating ambient temperature		ature	-20 to +70℃		-25 to +70°C	0	-20 to +80°C	0	-20 to +80°C	0	-20 to +80℃	0
Storag	ge ambient	temperat	ure	-40 to +125℃		-40 to +85℃	Δ	-25 to +120°C	Δ	-25 to +120°C	Δ	-25 to +120°C	Δ
Protec	Protection rating			IP67		IP67	0	IP67	0	IP67	0	IP67	0
Materi	Material			PBT, urethane resin filling		PBT	-	Glass fiber cloth	-	Almina ceramic	-	PA6	-
Extern	nal dimensio	ons		30×30×6mm		30×30×6mm	0	φ16×0.9mm	-	φ26×3.4mm	-	φ50×8.3mm	-
Shape	e/Installation	n method		Plate/Screw type		Plate/Screw type	0	Round	-	Round/Screw type	-	Round/Screw type	-
time	nunication een data	Read	20 words	65ms		125ms (200ms in 64-byte data communication)	Δ						
carrier reader (contro	r/writer	Write	20 words	120ms		125ms to 187.5ms (200ms to 300ms in 64-byte data communication)		125ms to 187.5ms (200ms to 300ms in 64-byte data communication)		125ms to 187.5ms (200ms to 300ms in 64-byte data communication)		125ms to 187.5ms (200ms to 300ms in 64-byte data communication)	
Applic	able reade	/writer		D-2N422RWS(-C2)	D-2N422RW(-C2)	Z3-A010-CN	-	Z3-A010-CN	-	Z3-A010-CN	-	Z3-A010-CN	-
			Compact PBT type, urethane resin filling	Standard PBT type, urethane resin filling	Square PBT		Square PBT		Square PBT		Square PBT		

<sup>\*1:</sup> When the bank function is enabled for the ID controller (that supports Mitsubishi sequence programs), available memory capacity is 688 bytes.

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Table 6.4 Data carrier performance comparison between Mitsubishi ID system D-2N series and B & PLUS K.K. ID system Z series (metal-mount type data carrier)

O: Compatible,  $\Delta$ : Partially changed, -: Incompatible

			Model	Mitsubishi D-2N series	B & PLUS Z series					
Item				D-2N03PM	Z1-AA04-02K	Compa tibility	Z1-EC02-128	Compa tibility	Z1-B011-128	Compa tibility
Stand	ard			-	ISO15693	-	ISO15693	-	ISO15693	-
Memo	ry capacity			320 bytes (EEPROM)	2K bytes*1 (FRAM)	0	112 bytes (EEPROM)	Δ	112 bytes (EEPROM)	Δ
Trans	mission frequenc	су		409.6kHz (receiving) 204.8kHz (sending)	13.56MHz	-	13.56MHz	-	13.56MHz	-
Max. o	communication of	listance	Read	15mm	22mm	0	35mm	0	45mm	0
(Varie condit	s by operating ions)		Write	12mm	22mm	0	35mm	0	45mm	0
Life	No. of		Read	Unlimited	Unlimited	0	Unlimited	0	Unlimited	0
	communication	ns	Write	300,000 times (-20 to +60°C) 100,000 times (+61 to +70°C)	Unlimited	0	100,000 times	Δ	100,000 times	Δ
	Data retention			10 years after data writing	10 years after data writing	0	10 years after data writing	0	10 years after data writing	0
Opera	Operating ambient temperature		е	-20 to +70℃	-25 to +70℃	0	-20 to +80℃	0	-20 to +80℃	0
Storag	ge ambient temp	erature		-40 to +125℃	-40 to +85℃	Δ	-25 to +120℃	Δ	-25 to +120℃	Δ
Protec	ction rating			IP67	IP67	0	IP67	0	IP67	0
Mater	ial			PBT, urethane resin filling	PBT	-	Almina ceramic	-	PA6	-
Exterr	nal dimensions			30×30×6mm	30×30×6mm	0	φ26×3.4mm	-	φ50×8.3mm	-
Shape	e/Installation met	hod		Plate/Screw type	Plate/Screw type	0	Round/Screw type	-	Round/Screw type	-
	nunication time een data carrier	Read	20 words	65ms	125ms (200ms in 64-byte data communication)	Δ	125ms (200ms in 64-byte data communication)	Δ	125ms (200ms in 64-byte data communication)	Δ
and reader/writer (controller))		Write	20 words	120ms	125ms to 187.5ms (200ms to 300ms in 64-byte data communication)	Δ	125ms to 187.5ms (200ms to 300ms in 64-byte data communication)	Δ	125ms to 187.5ms (200ms to 300ms in 64-byte data communication)	Δ
Applicable reader/writer		D-2N422RWS(-C2)  Compact PBT type, urethane resin filling	Z3-A010-CN Square PBT	-	Z3-A010-CN Square PBT	-	Z3-A010-CN Square PBT	-		

<sup>\*1:</sup> When the bank function is enabled for the ID controller (that supports Mitsubishi sequence programs), available memory capacity is 688 bytes.

### (5) List of discontinued and alternative models

Table 6.5 List of Mitsubishi ID system D-2N series models and alternative Balluff ID system BIS M series models

		Mitsubishi ID system	Balluff ID system	Remarks (restrictions)		
	Series	D-2N series	BIS M series			
	Туре	Batteryless, electromagnetic induction	Batteryless, electromagnetic induction			
Product name		Model	Model			
ID interface	MELSEC-An 1ch	AD35ID1	None	-		
module	MELSEC-An 2ch	AD35ID2	None	-		
	MELSEC-AnS 1ch	A1SD35ID1	None	-		
	MELSEC-AnS 2ch	A1SD35ID2	Please consider transition to MELSEC-Q series (BIS M series) system.			
	MELSEC-Q 1ch	QD35ID1	None (2-channel module can be used.)	-		
	MELSEC-Q 2ch	QD35ID2	BIS M-688-001 (QD35ID2 instructions are not supported. Balluff dedicated instructions are available.) BIS M-688-002 (QD35ID2 instructions and Mitsubishi dedicated instructions are supported.)	Reader/writer connection: Connector  → Terminal block		
	CC-Link 2ch	AJ65BT-D35ID2	BIS M-689-001 (AJ65BT-D35ID2 instructions are not supported. Balluff dedicated instructions are available.) BIS M-688-002 (AJ65BT-D35ID2 instructions and Mitsubishi dedicated instructions are supported.)	No dimensional and installation compatibility		
RS-232C ID controller	2ch	D-2N232IF2	None (Reader/writer with built-in RS-232C interface can be used.)	No hardware and software compatibility		
	Software for personal computer	SW0D5F-DIDP	None	-		
Data carrier	Card type	None	BIS M-120-01/L (85.6×54×0.76mm, 752-byte EEPROM, ISO14443)	No dimensional compatibility		
	Round type	None	BIS M-101-01/L (\(\phi\)30\x1.6mm, 752-byte EEPROM, ISO14443\) BIS M-102-01/L (\(\phi\)50\x1.6mm, 752-byte EEPROM, ISO14443\) BIS M-122-02/A (\(\phi\)10\x4.5mm, 2000-byte FRAM, ISO15693\) BIS M-110-02/L (\(\phi\)20\x2.5mm, 2000-byte FRAM, ISO15693\) BIS M-111-02/L (\(\phi\)30\x2.5mm, 2000-byte FRAM, ISO15693\) BIS M-112-02/L (\(\phi\)50\x3.0mm, 2000-byte FRAM, ISO15693\)			
			BIS M-125-01/L (752-byte EEPROM, ISO14443)	(1) Max. communication distance (nonmetal-mount, reading): 40mm → 28mm (2) Write life: 300,000 → 100,000 times		
Reader/writer	Compact (tag metal-mount)	D-2N422RWS D-2N422RWS-C2	BIS M-300-001-S115	No dimensional and installation compatibility		
	Standard	D-2N422RW D-2N422RW-C2	BIS M-301-001-S115	No dimensional and installation compatibility		
Extension cable	10m	D-NS422CAB10	BKS-S115-PU_ (straight type, max. distance: 25m)	Max. extension distance: 200m		
for reader/writer	20m	D-NS422CAB20	BKS-S116-PU_ (right-angle type, max. distance: 25m)	(100m×2) → 25m		
	40m	D-NS422CAB40 None		Transition to CC-Link can extend the length.		
	100m D-NS422CAB100 None		None	Transition to CC-Link can extend the length.		
Handy controller	Handy controller	D-20HC/-E	BIS M-810-0-006	(1) No hardware and software compatibility (2) English display only		
	Power supply adapter	D-20HC-PS (included)	BIS C-701/A	Must be separately purchased.		
	Rechargeable battery	D-20HC-BAT (included)	BIS C-81.2.4V (included)	-		

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Table 6.6 List of Mitsubishi ID system D-2N series models and alternative B & PLUS K.K. ID system Z series models

		Mitsubishi ID system	B & PLUS ID system	Remarks (restrictions)		
	Series	D-2N series	Z series			
	Туре	Batteryless, electromagnetic induction	Batteryless, electromagnetic induction			
Product name		Model	Model			
ID interface	MELSEC-An 1ch	AD35ID1	None	-		
module	MELSEC-An 2ch	AD35ID2	None	-		
	MELSEC-AnS 1ch	A1SD35ID1	None	-		
	MELSEC-AnS 2ch	A1SD35ID2	None	Please consider transition to		
			None	MELSEC-Q series (Z series) system.		
	MELSEC-Q 1ch	QD35ID1	None (2-channel module can be used.)	-		
	MELSEC-Q 2ch	QD35ID2	Z4-Q001 (QD35ID2 instructions are not supported. B & PLUS dedicated instructions are available.) Z4-Q002 (QD35ID2 instructions and Mitsubishi dedicated instructions are supported.)	Reader/writer connection: Connector  → Terminal block		
	CC-Link 2ch	AJ65BT-D35ID2	Z4-C001 (AJ65BT-D35ID2 instructions are not supported. B & PLUS dedicated instructions are available.) Z4-C002 (AJ65BT-D35ID2 instructions and Mitsubishi dedicated instructions are	No dimensional and installation compatibility Connector connection: D-sub 9 pin		
RS-232C ID	2ch	D-2N232IF2	supported.)  None	No hardware and software		
controller				compatibility		
	Software for personal computer	SW0D5F-DIDP	None	-		
Data carrier	Card type	None	None	-		
	Round type	None	Z1-FA01-128 (\phi1s\cdot 0.9mm, 112-byte EEPROM, ISO15693) Z1-EC02-128 (\phi2s\cdot 3.4mm, 112-byte EEPROM,	Flexible data carrier, no dimensional compatibility  Ceramic data carrier, no dimensional compatibility		
			ISO15693) Z1-B011-128 (\phi50\times 8.3mm, 112-byte EEPROM, ISO15693)	Long distance data carrier, no dimensional compatibility		
	Plate type (□30×30)	D-2N03PS (320 bytes)	Z1-AA04-02K	(1) Max. communication distance		
				(1) Max. communication distance		
		D-2N03PM (320 bytes)	(2K-byte FRAM, ISO15693)	(nonmetal-mount, reading): 40mm → 30mm (2) Write life: 300,000 → unlimited		
Reader/writer	Compact (tag metal-mount)	D-2N422RWS D-2N422RWS-C2	(2K-byte FRAM, ISO15693)  Z3-A010-CN	(nonmetal-mount, reading): 40mm → 30mm		
Reader/writer	Compact (tag metal-mount) Standard	D-2N422RWS D-2N422RWS-C2 D-2N422RW		(nonmetal-mount, reading): 40mm → 30mm (2) Write life: 300,000 → unlimited No dimensional and installation		
Reader/writer	,	D-2N422RWS D-2N422RWS-C2		(nonmetal-mount, reading): 40mm → 30mm (2) Write life: 300,000 → unlimited No dimensional and installation		
	,	D-2N422RWS D-2N422RWS-C2 D-2N422RW	Z7-A001A-PU_ (straight type, terminal block connection, max. distance: 25m) Z7-A002A-PU_ (right-angle type, terminal block connection, max. distance: 25m)	(nonmetal-mount, reading): 40mm → 30mm (2) Write life: 300,000 → unlimited No dimensional and installation		
Extension cable	Standard  10m  20m	D-2N422RWS D-2N422RWS-C2 D-2N422RW D-2N422RW-C2 D-NS422CAB10	Z7-A001A-PU_ (straight type, terminal block connection, max. distance: 25m) Z7-A002A-PU_ (right-angle type, terminal block connection, max. distance: 25m) Z7-A005A-PU_ (straight type, D-sub 9 pin, max. distance: 25m) Z7-A006A-PU_ (right-angle type, D-sub 9 pin, max. distance: 25m)	(nonmetal-mount, reading): 40mm → 30mm (2) Write life: 300,000 → unlimited No dimensional and installation compatibility  Max. extension distance: 200m (100m×2) → 25m		
Extension cable	Standard  10m  20m  40m	D-2N422RWS D-2N422RWS-C2 D-2N422RW D-2N422RW-C2 D-NS422CAB10 D-NS422CAB20 D-NS422CAB40	Z7-A001A-PU_ (straight type, terminal block connection, max. distance: 25m) Z7-A002A-PU_ (right-angle type, terminal block connection, max. distance: 25m) Z7-A005A-PU_ (straight type, D-sub 9 pin, max. distance: 25m) Z7-A006A-PU_ (right-angle type, D-sub	(nonmetal-mount, reading): 40mm → 30mm (2) Write life: 300,000 → unlimited No dimensional and installation compatibility  Max. extension distance: 200m (100m×2) → 25m		
Extension cable for reader/writer	Standard  10m  20m  40m  100m	D-2N422RWS D-2N422RWS-C2 D-2N422RW D-2N422RW-C2 D-NS422CAB10  D-NS422CAB20  D-NS422CAB40 D-NS422CAB40	Z7-A001A-PU_ (straight type, terminal block connection, max. distance: 25m) Z7-A002A-PU_ (right-angle type, terminal block connection, max. distance: 25m) Z7-A005A-PU_ (straight type, D-sub 9 pin, max. distance: 25m) Z7-A006A-PU_ (right-angle type, D-sub 9 pin, max. distance: 25m) None None	(nonmetal-mount, reading): 40mm → 30mm (2) Write life: 300,000 → unlimited No dimensional and installation compatibility  Max. extension distance: 200m (100m×2) → 25m		
Extension cable	Standard  10m  20m  40m	D-2N422RWS D-2N422RWS-C2 D-2N422RW D-2N422RW-C2 D-NS422CAB10 D-NS422CAB20 D-NS422CAB40	Z7-A001A-PU_ (straight type, terminal block connection, max. distance: 25m) Z7-A002A-PU_ (right-angle type, terminal block connection, max. distance: 25m) Z7-A005A-PU_ (straight type, D-sub 9 pin, max. distance: 25m) Z7-A006A-PU_ (right-angle type, D-sub 9 pin, max. distance: 25m) None	(nonmetal-mount, reading): 40mm → 30mm (2) Write life: 300,000 → unlimited No dimensional and installation compatibility  Max. extension distance: 200m (100m×2) → 25m  Transition to CC-Link can extend the length.  Transition to CC-Link can extend the		

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## **REVISIONS**

Version	Print Date	Revision
-	June 2009	First edition
A	July 2010	Correction of errors in "(3) Performance comparison"
В	April 2015	Addition of B & PLUS K.K. ID system "Z series"