

Cost effective
Data carrier Ver.

BIS M series

DeviceNet

BIS M-6003-025-050-03-ST12



CC-Link

BIS M-689-001



RS-232C

BIS M-40_-001



MELSEC-Q Bus

BIS M-688-001



Flush-mountable Data carrier

BIS M-125-01/L

□ 30x30



- Flush-mountable to metal
- Read/Write distance 15mm under flush-mounted condition
- Memory capacity 752 bytes

Flush mountable



Non-metal mount type

BIS M-101-01/L

φ 30



BIS M-102-01/L

φ 50



BIS M-120-01/L

□ 85.6x54

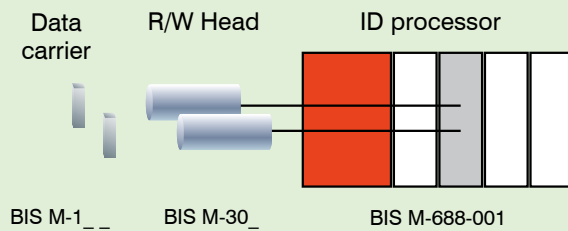


- Read/Write distance max. 50mm*
- Memory capacity 752 bytes

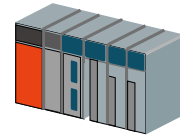
*depending on the combination of Data carrier and R/W Head

Configuration

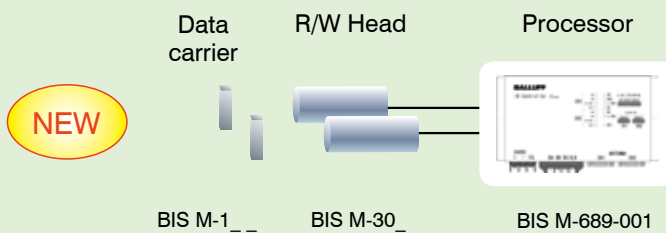
MELSEC-Q Bus



mount on
MELSEC-Q Bus



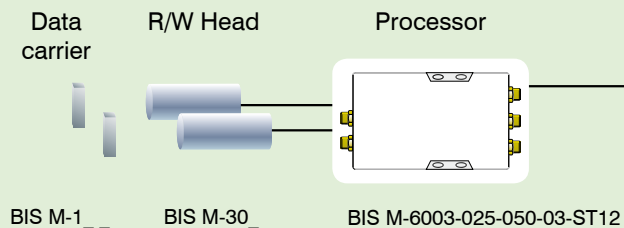
CC-Link



connect to
CC-Link



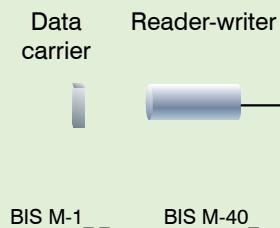
DeviceNet



connect to
DeviceNet



RS-232C



connect to
RS-232C



Handy Unit



BIS M-810-0-006

Data compilation as well as data communication with Data carrier is possible with this handy unit

Data carrier

form	size	type code	flush-mount	memory capacity/block size	note
	∅ 30 x 1.6	BIS M-101-01/L	no	752 byte / 16 byte	
	∅ 50 x 1.6	BIS M-102-01/L	no	752 byte / 16 byte	
	85.6 x 54 x 0.76	BIS M-120-01/L	no	752 byte / 16 byte	
	30 x 30 x 6	BIS M-125-01/L	yes	752 byte / 16 byte	

Read/write head

connection		type code	applicable data carrier	
	M30 x 83	BIS M-300-001-S115	BIS -101/102/125	
	80 x 80 x 40	BIS M-301-001-S115	BIS -101/102/120/125	

Processor

interface	type code	Connecting R/W head	note
MELSEC-Q BUS	BIS M-688-001	2CH	
CC-Link	BIS M-689-001	2CH	
DeviceNet	BIS M-6003-025-050-03-ST12	2CH	

Reader-Writer

interface		type code	note
Serial RS-232C	M30 x 83	BIS M-400-007-001-00-S115	
	80 x 80 x 40	BIS M-401-007-001-00-S115	

Connector cable (for R/W head - Processor or Reader Writer - Host computer)

form	type code	note
Straight	BKS-S115-PU-__	
	BKS-S115-DM-PU-__	BIS M-30 □ - BIS-689
Angle	BKS-S116-PU-__	
	BKS-S116-DM-PU-__	BIS M-30 □ - BIS-689
Straight	BKS-S117-00	
Straight	BIS Z-AK-001-PU1-03	BIS M-40 □ - Host computer
	BIS C-703-A	AC adaptor for BIS Z-AK-001PU1-03

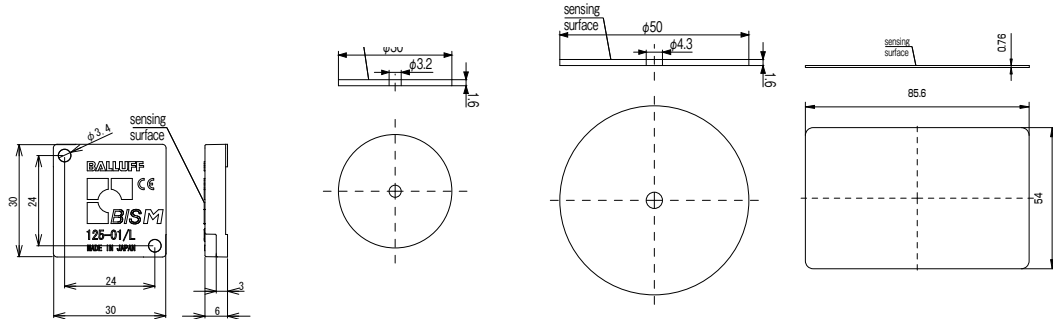
BIS M6003- □ / external device

form	type code	note
Straight	BKS-S 79-00	power supply (X1)
	BKS-S 92-00	DeviceNet input(X2)
	BKS-S 94-00	DeviceNet output(X3)
	BKS-S 94-R01	termination resistor(X3)

Handy unit

form	type code	note
Control unit	BIS M-810-0-006	

	Flush-mount in steel			
Size	30 x 30 x 6	ϕ 30 x 1.6	ϕ 50 x 1.6	85.6 x 54 x 0.76
Housing material	PBT	EP	EP	PVC
Weight	$\leq$ 7g	$\leq$ 1.6g	$\leq$ 2.5g	$\leq$ 5.8g



Type code		BIS M-125-01/L	BIS M-101-01/L	BIS M-102-01/L	BIS M-120-01/L
Memory type		752 bytes/EEPROM	752 bytes/EEPROM	752 bytes/EEPROM	752 bytes/EEPROM
Operating temperature		-25... + 70 degree C	-25... + 70 degree C	-25... + 70 degree C	-25... + 70 degree C
Storage temperature		-40... + 85 degree C	-40... + 85 degree C	-40... + 85 degree C	-25... + 70 degree C
Protection per IEC 60529		IP67	IP67* ¹	IP67* ¹	IP60
Life time	Read	unlimited	unlimited	unlimited	unlimited
	Write	100,000 times	100,000 times	100,000 times	100,000 times
	Data retention	10 years	10 years	10 years	10 years
		Flush-mount	Non-metal	Non-metal	Non-metal
max.read/write	BIS M-300	0-15mm	0-20mm	0-22mm	0-32mm
Distance with:	BIS M-301	-	0-30mm	0-35mm	0-50mm

Tightening torque : 1Nm

Tightening torque:1Nm



*1: Data carrier will be swollen on exposure to water.

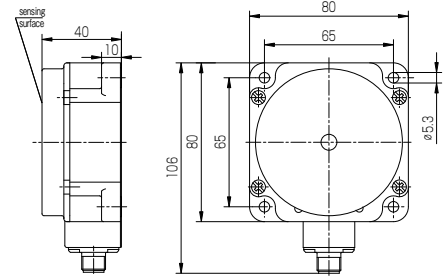
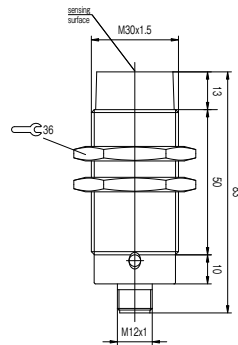
+20 degree C for 6 days : 0.3%

+70 degree C for 3 days : 3.0%

ID System
BIS M Series

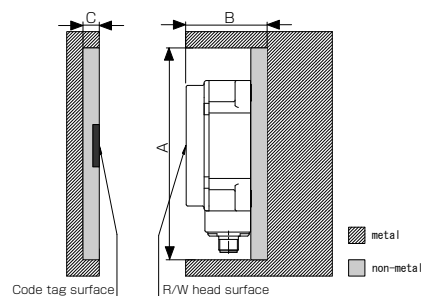
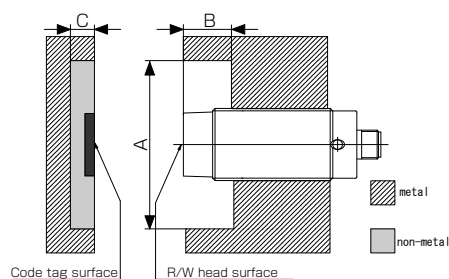
Read/Write Head

Size	M30	80 x 80 x 40
Housing Material	Nickel plated brass	PBT
Weight	100g	410g

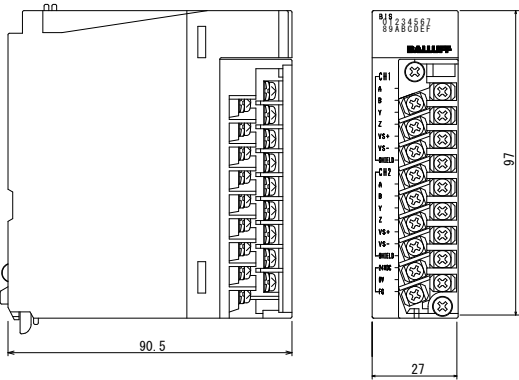


Type code		BIS M-300-001-S115				BIS M-301-001-S115			
Mounting in steel		Non-flush				Non-flush			
Operating temperature		0...+70 degree C				0...+70 degree C			
Storage temperature		-20...+85 degree C				-20...+85 degree C			
Protection per IEC 60529		IP67				IP67			
Connection to with connection cable		Processor				Processor			
Cable length		BKS S115-PU-__ / BIS S116-PU-__ 5m , 10m , 15m (Max.25m)				BKS S115-PU-__ / BIS S116-PU-__ 5m , 10m , 15m (Max.25m)			
		BIS M-125	BIS M-101	BIS M-102		BIS M-125	BIS M-101	BIS M-102	BIS M-120
Clear zone	A	>60	>60	>100	>150	>200	>200	>200	>250
	B	>30	>30	>30	>30	>70	>70	>70	>70
	C	0	>16	>25	>50	>40	>50	>50	>80
		Flush-Mont							
Write distance in mm		0-15	0-20	0-22	0-32	0-30	0-35	0-50	0-50
Read distance in mm		0-15	0-20	0-22	0-32	0-30	0-35	0-50	0-50
Offset in mm at distance	0mm	±9	±12	±15	±20	±25	±22	±30	±30
	5mm	±9	±12	±15	±20	±25	±22	±30	±30
	9mm	±7	±10	±15	±20	±25	±22	±30	±30
	12mm	±7	±10	±15	±20	±25	±22	±30	±30
	15mm	±5	±10	±15	±20	±25	±22	±30	±30
	16mm		±7	±12	±20	±25	±22	±30	±30
	18mm		±7	±12	±20	±24	±22	±30	±30
	20mm		±5	±12	±20	±24	±22	±30	±30
	22mm			±4	±18	±21	±20	±30	±30
	25mm				±14	±20	±15	±30	±30
	30mm				±10	±15	±15	±30	±28
	32mm				±4		±8	±30	±24
	35mm						±4	±30	±22
	40mm							±24	±18
	43mm							±20	±14
	45mm							±16	±12
	50mm							±4	±4

Clear zone



Connecting R/W head	2CH
Interface	Direct connection to MELSEC-Q bus



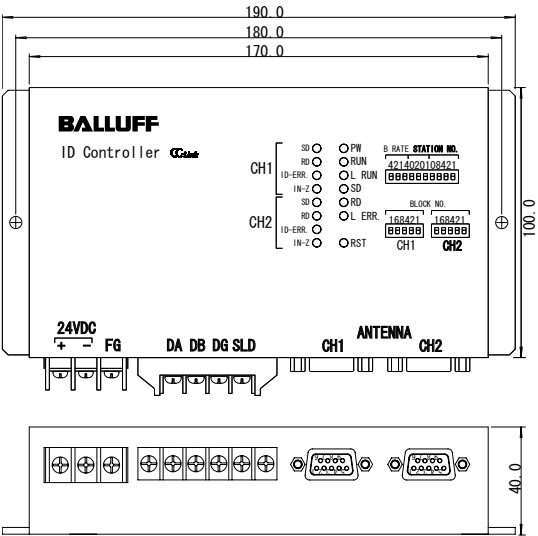
Type code	BIS M-688-001
Supply voltage	24V DC $\pm$ 10%
Current consumption	700mA
Operating temperature	0...+55 degree C
Connection with R/W Head	Connector cable : BKS S115-PU-___/BIS S116-PU-___
Connection with external device	to terminal box (24VDC, 0V, FG)
Power supply	to MELSEC-Q base unit
Controller	
note	BISM-688-002 : replacment type for QD351D1/2*

*QD351D1 & 2 are ID interface units of Mitsubishi Electronic Corporation.

-Refer to technical manual for the details.



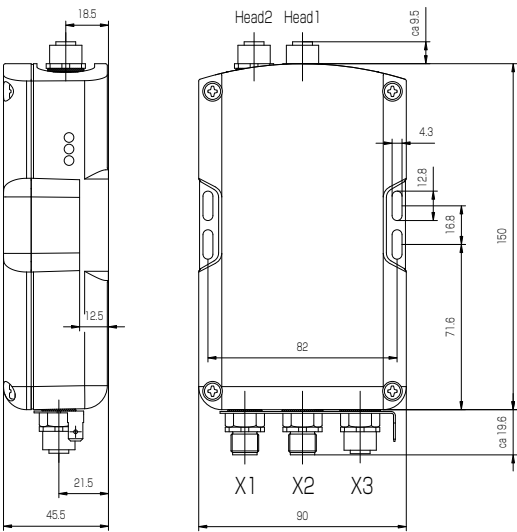
Connecting R/W head	2CH
Interface	CC-Link



type code	BIS M-689-001
Supply voltage	24V DC $\pm$ 10%
Current consumption	800mA
Operating temperature	0...+55 degree C
Connection with R/W Head	D-sub 9pin connector
Connection with external device	CC-Link cable
note	

-Refer to technical manual for the details.

Connecting R/W head	2CH
Interface	DeviceNet



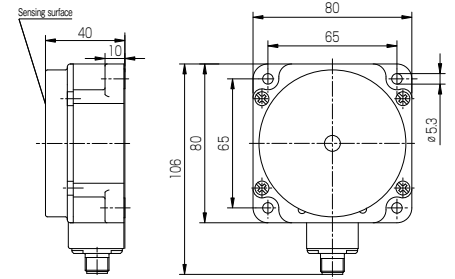
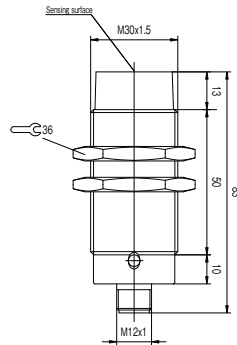
Type code	BIS M-6003-025-050-03-ST12	
Supply voltage	24V DC $\pm$ 20%	
Current consumption	$\leq$ 400mA	
Operating temperature	0...+50 degree C	
Connection with R/W Head	Connector cable : BKS S115-PU-_/BIS S116-PU-_/BIS S117-00	
Connection with external device	Power supply	X1 : BKS S79-00
	Controller	X2 (DeviceNet/Input) : BKS S92-00
		X3 (DeviceNet/Output) : BKS S94-00 / BKS S94-R01
Accessories included	software EDS-file	

-Refer to technical manual for the details.



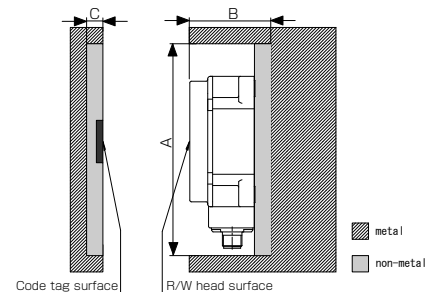
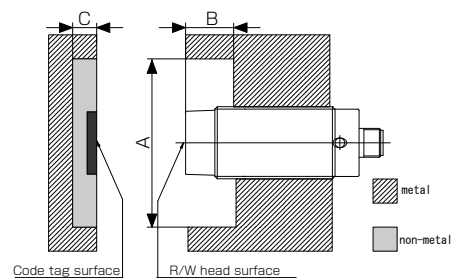
Reader-Writer

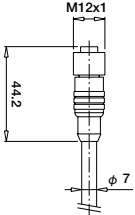
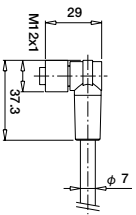
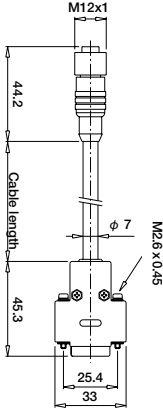
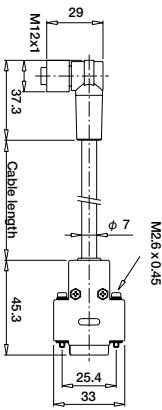
Size	M30	80 x 80 x 40
Housing Material	Nichel plated brass	PBT
Weight	100g	410g

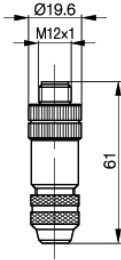


		BIS M-400-007-001-00-S115						BIS M-401-007-001-00-S115							
Mounting on metal		Non-shield						Non-shield							
Operating temperature		0...+70degree C						0...+70degree C							
Supply voltage		24V DC + 10% / -20%						24V DC + 10% / -20%							
Current consumption		0.05A						0.05A							
Protection per IEC 60529		IP67						IP67							
Connection to with connection cable		RS-232C interface device						RS-232C interface device							
		BKS S115-PU-__ / BIS S116-PU-__ / BIS Z-AK-001-PU1-03						BKS S115-PU-__ / BIS S116-PU-__ / BIS Z-AK-001-PU1-03							
Cable length		5m , 10m , 15m (Max.25m)						5m , 10m , 15m (Max.25m)							
		BIS M-125		BIS M-101		BIS M-102		BIS M-125		BIS M-101		BIS M-102		BIS M-120	
Clear A		>60	>60	100		150		>200		200		200		250	
Zone B		>30	>30	>30		>30		>70		>70		>70		>70	
C		0	>16	>25		>50		>40		>50		>50		>80	
		Flush-Mont													
Write distance in mm		0-15	0-20	0-20		0-28		0-28		0-28		0-45		0-50	
Read distance in mm		0-15	0-20	0-20		0-28		0-28		0-28		0-45		0-50	
Offset in mm at disetance		0mm	±9	±12	±14	±20		±25		±22		±30		±30	
		5mm	±9	±12	±14	±20		±25		±22		±30		±30	
		9mm	±7	±10	±10	±20		±25		±22		±30		±30	
		12mm	±5	±10	±5	±15		±25		±22		±30		±30	
		15mm		±5		±10		±23		±22		±30		±30	
		16mm						±15		±12		±24		±30	
		18mm										±24		±28	
		20mm										±20		±22	
		22mm										±15		±18	
		25mm											±5	±12	
		28mm												±4	
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		35mm													
		40mm													
		43mm													
		45mm													
50mm															

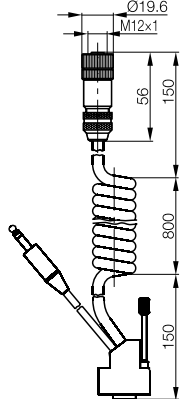
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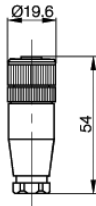
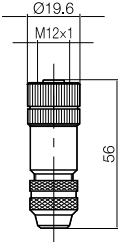
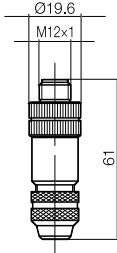
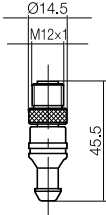


Type code	BKS-S115-PU_ _	BKS-S116-PU- _ _	BKS-S115-DM-PU_ _ for BIS M-689	BKS-S116-DM-PU- _ _ for BIS M-689
for R/W Head and Processor				
Connector type	M12	M12	M12	M12
Connector R/W head side	Round 8-pin/female	Round 8-pin/female	Round 8-pin/female	Round 8-pin/female
Connector Cable	8 x 0.25mm ² /PUR	8 x 0.25mm ² /PUR	8 x 0.25mm ² /PUR	8 x 0.25mm ² /PUR
Connector Processor side	--	--	D-sub 9 pin male	D-sub 9 pin male
Protection per IEC 60529	IP67	IP67	IP40	IP40

Type code	BKS-S117-00 for BIS M-6003
	
PL0029a	
Connector type	M12
R/W head side	--
Connector Cable	--
Processor side	Round 8-pin/male
Protection per IEC 60529	IP67

PL00239a

Type code	BIS Z-AK-001-PU1-03 BIS M-40 □ /host computer
	
Connector type	M12
Processor side	Round 8-pin/female
Connector Cable	PUR
Host computer side	D-sub 9pin female
Protection per IEC 60529	IP40
exclusive AC adaptor BIS C-703-A	

Type code	BKS-S79-00	BKS-S92-00	BKS-S94-00	BKS-S94-R01
	Power supply(X1)	DeviceNet Input(X2)	DeviceNet Output(X3)	Termination resistor(X3)
for Power supply DeviceNet				
	PL0221 	PL0026 	PL0029 	PL0030 
Connector type	Round 5-pin/ female	Round 5-pin/ female	Round 5-pin/ male	Round 5-pin/ male
Protection per IEC 60529	IP67	IP67	IP67	IP68

