

SPECIFICATION SHEET

DKK

Rainproof electrodeless concentration analyzer

Model: **MB-32**

BS06-001

- Concentration analyzer based on conductivity measurement utilizing electromagnetic induction. Unaffected by electrode fouling and polarization capacitance (problems associated with conventional conductivity analyzers). The sensor is coated with a corrosion resistant insulation material enabling this instrument to be used in corrosive solutions. Very high conductivity solutions can be measured with minimum error.
- Field installation design with rainproof construction.
- Various mounting arrangements, with 50A pipe bracket on the base of MB32.
- Combined with sensor MC-6, MC-7 or MC-8.
- Use model SMC-2 when an intrinsically safe explosion protected system is required.



Standard Specifications

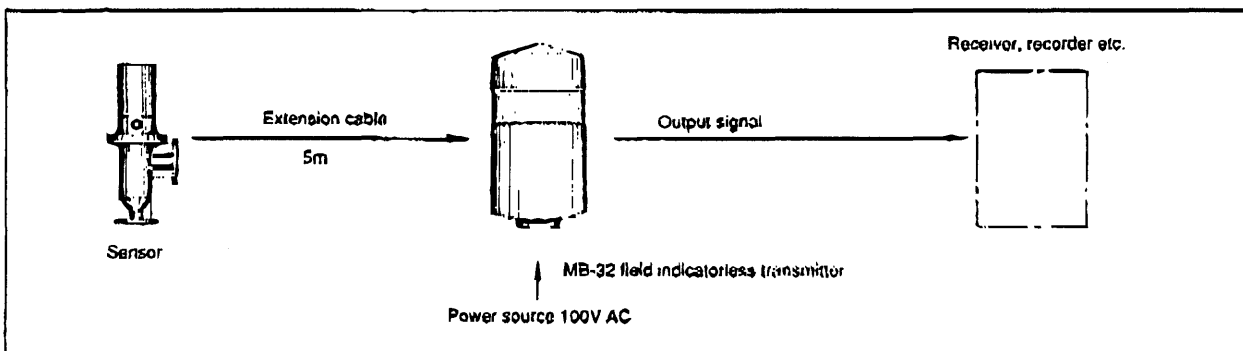
Product Name	: Rainproof, electrodeless concentration analyzer
Model	: MB-32
Measurement Object	: Conductivity and concentration of acid and alkali (HCl, H ₂ SO ₄ , HNO ₃ , NaCl)
Measurement Method	: Conductivity measurement on the principle of electromagnetic induction
Measurement Range	: 0 - 5, 10, 20, 50, 100, 200, 500, 1000mS/cm at 25 °C Refer to the product code table for inorganic salt concentration measurement. (e.g., HCl 30 - 40wt%, NaOH 0 - 10wt%)
Ambient Temperature	: -10 - 55°C
Temperature Compensation:	
Temperature range ...	Normal temperature ±10°C (within the range of 0 - 100°C) In conductivity measurement, the temperature is standardized at 25 °C
Temperature characteristics	Temperature characteristics of conductivity of specified solution. Unless otherwise specified, temperature characteristics of conductivity of NaCl solution.
Accuracy	Within ±3%FS (exclusive of sensor)

Output	: (isolated from input) 4 ~ 20mA DC (max. load 600Ω) 0 - 10mV DC (min. load 100kΩ) 1 ~ 5V DC (min load 500kΩ) Conductivity analyzer; Linear output Concentration analyzer; Non-linear output
Power Requirements	: 100V AC ±10% 50/60Hz
Power Consumption	: Approx. 3VA
Construction	: Rainproof
Materials	: CoverABS resin BaseCast aluminum
Dimensions	: Refer to dimensional drawing. ø170 x 300(H)mm
Weight	: Approx. 6kg
Standard Paint Colour	: CoverMetallic silver + Blue/green BaseMetallic silver
Mounting	: 50A pole mount

Related Equipment

- SensorMC-61, MC-71, MC-81 etc.
- Extension cableEC-1 (Standard length 5m, a length of 10m is possible for conductivity analyzers with measurement ranges starting from 0 mS/cm.)

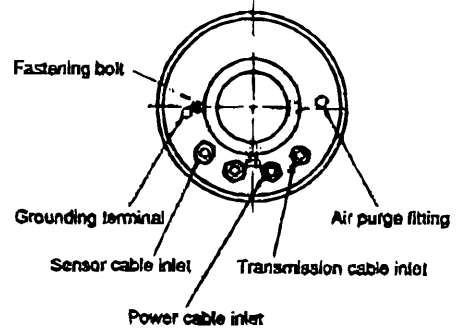
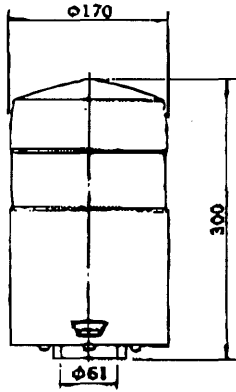
System Configuration



Dimensions

Unit: mm

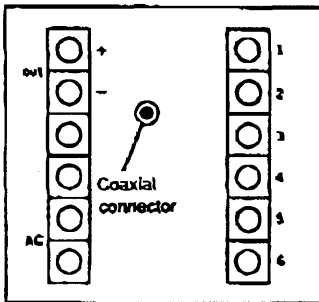
MB-32



Maintenance space:
Be sure to secure space above the instrument for cover removal. Also ensure there is enough space and scaffolding etc. around the instrument to allow maintenance personnel access to service the instrument.

Four cable ports (M26 P1.5)

Terminal Connections



- 1, 2 : Temperature compensator connection terminals
- 3, 4 : Source voltage terminals
- 5, 6 : Zero point shift voltage terminals

Coaxial connector : Input terminal
 OUT : Output terminals
 AC : Power terminals

Product Code

MB-32 (NaCl concentration analyzer)

MB32A-O	□	□	□	□	□	□	□	□	□										
	1	2	3	4	5	6	7	9											
	Power source																		
	1	2	3	4	5	6	7	9											
	1	2	3	4	5	6	7	9											
	Output																		
	1	2	3	9															
	1	2	3	9															
	Concentration analyzer measurement range																		
	A	B	C	D	Z														
	A	B	C	D	Z														
	Temperature compensation range																		
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	Z	
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	Z	
	Assembling with cable port adapter																		
	0	1	2	3	4	9													
	0	1	9																
	Markings																		
	0	1	9																
	Combined sensor																		
	0	1																	

MB-32 (HCl concentration analyzer)

MB32-O	□	□	□	□	□	□	□	□	□					
	1	2	3	4	5	6	7	9						
	Power source													
	1	2	3	4	5	6	7	9						
	1	2	3	4	5	6	7	9						
	Output													
	1	2	3	9										
	1	2	3	9										
	Concentration analyzer measurement range													
	A	B	C	D	E	F	Z							
	A	B	C	D	E	F	Z							
	Temperature compensation range													
	A	B	C	D	E	F	G	H	J	K	L	M	N	Z
	A	B	C	D	E	F	G	H	J	K	L	M	N	Z
	Assembling with cable port adapter													
	0	1	2	3	4	9								
	0	1	9											
	Markings													
	0	1	9											
	Combined sensor													
	0	1												

Note: Product code varies with the measurement object.

[Due to continuous product development and improvement, our product codes are subject to change.]
 [Please confirm product code with our authorized agents or our International Sales Department prior to order placement.]

MB-32 (HNO₃ concentration analyzer)

MB32C-O	□	□	□	□	□	□	□	□						
	1	2	3	4	5	6	7	9						
	Power source													
	1	2	3	4	5	6	7	9						
	100V AC 50/60Hz	110V AC 50/60Hz	115V AC 50/60Hz	120V AC 50/60Hz	200V AC 50/60Hz	220V AC 50/60Hz	230V AC 50/60Hz	Custom spec.						
	Output													
	1	2	3	9										
	4 - 20mA DC	0 - 10mV DC	1 - 5V DC	Custom spec.										
	Concentration analyzer measurement range													
	A	B	C	D	E	F	G	Z						
	0 - 5wt% HNO ₃	0 - 10wt% HNO ₃	0 - 20wt% HNO ₃	0 - 25wt% HNO ₃	40 - 80wt% HNO ₃ *	60 - 70wt% HNO ₃ *	60 - 80wt% HNO ₃ *	Other HNO ₃ (wt% or g/l etc.)						
	Temperature compensation range													
	A	B	C	D	E	F	G	H	J	K	L	M	N	Z
	10 ± 10°C	15 ± 10°C	20 ± 10°C	25 ± 10°C	30 ± 10°C	35 ± 10°C	40 ± 10°C	45 ± 10°C	50 ± 10°C	55 ± 10°C	60 ± 10°C	65 ± 10°C	70 ± 10°C	As specified
	Assembling with cable port adapter													
	0	1	2	3	4	9								
	Nil (Standard M26 P1.5)	G ^{1/2} (PF ^{1/2}) SUS304	G ^{3/4} (PF ^{3/4}) SUS304	NPT ^{1/2} SUS304	NPT ^{3/4} SUS304	Custom spec.								
	Markings													
	0	1	9											
	Standard	English	Custom spec.											
	Combined sensor													
	0	1												
	Manufactured together with instrument	Nil												

* Use an integrated teflon coated sensor.

MB-32 (NaOH concentration analyzer)

MB32D-O	□	□	□	□	□	□	□	□											
	1	2	3	4	5	6	7	9											
	Power source																		
	1	2	3	4	5	6	7	9											
	100V AC 50/60Hz	110V AC 50/60Hz	115V AC 50/60Hz	120V AC 50/60Hz	200V AC 50/60Hz	220V AC 50/60Hz	230V AC 50/60Hz	Custom spec.											
	Output																		
	1	2	3	9															
	4 - 20mA DC	0 - 10mV DC	1 - 5V DC	Custom spec.															
	Concentration analyzer measurement range																		
	A	B	C	D	Z														
	0 - 5wt% NaOH	0 - 10wt% NaOH	0 - 15wt% NaOH*	20 - 40wt% NaOH*	Other NaOH (wt% or g/l etc.)														
	Temperature compensation range																		
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	Z	
	10 ± 10°C	15 ± 10°C	20 ± 10°C	25 ± 10°C	30 ± 10°C	35 ± 10°C	40 ± 10°C	45 ± 10°C	50 ± 10°C	55 ± 10°C	60 ± 10°C	65 ± 10°C	70 ± 10°C	75 ± 10°C	80 ± 10°C	85 ± 10°C	90 ± 10°C	As specified	
	Assembling with cable port adapter																		
	0	1	2	3	4	9													
	Nil (Standard M26 P1.5)	G ^{1/2} (PF ^{1/2}) SUS304	G ^{3/4} (PF ^{3/4}) SUS304	NPT ^{1/2} SUS304	NPT ^{3/4} SUS304	Custom spec.													
	Markings																		
	0	1	9																
	Standard	English	Custom spec.																
	Combined sensor																		
	0	1																	
	Manufactured together with instrument	Nil																	

* Note that temperature compensation range is limited for these ranges.

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MB-32 (Conductivity analyzer)

MB32G-O		
		Power source
1		100V AC 50/60Hz
2		110V AC 50/60Hz
3		115V AC 50/60Hz
4		120V AC 50/60Hz
5		200V AC 50/60Hz
6		220V AC 50/60Hz
7		230V AC 50/60Hz
9		Custom spec.
		Output
1		4 - 20mA DC
2		0 - 10mV DC
3		1 - 5V DC
9		Custom spec.
		Conductivity measurement range
A		0 - 5,000 μ S/cm at 25°C NaCl
B		0 - 10,000 μ S/cm at 25°C NaCl
C		0 - 20,000 μ S/cm at 25°C NaCl
D		0 - 50,000 μ S/cm at 25°C NaCl
E		0 - 100mS/cm at 25°C NaCl
F		0 - 200mS/cm at 25°C NaCl
G		0 - 500mS/cm at 25°C NaCl
H		0 - 1S/cm at 25°C NaCl
Z		As specified
		Temperature compensation range
A		10 \pm 10°C
B		15 \pm 10°C
C		20 \pm 10°C
D		25 \pm 10°C
E		30 \pm 10°C
F		35 \pm 10°C
G		40 \pm 10°C
H		45 \pm 10°C
J		50 \pm 10°C
K		55 \pm 10°C
L		60 \pm 10°C
M		65 \pm 10°C
N		70 \pm 10°C
P		75 \pm 10°C
Q		80 \pm 10°C
R		85 \pm 10°C
S		90 \pm 10°C
Z		As specified
		Assembling with cable port adapter
0		Nil (Standard M26 P1.5)
1		G $\frac{1}{2}$ (PF $\frac{1}{8}$) SUS304
2		G $\frac{3}{4}$ (PF $\frac{1}{4}$) SUS304
3		NPT $\frac{1}{2}$ SUS304
4		NPT $\frac{3}{4}$ SUS304
9		Custom spec.
		Markings
0		Standard
1		English
9		Custom spec.
		Combined sensor
0		Manufactured together with instrument
1		Nil

When temperature compensation based on a substance other than NaCl is specified, set the code of this digit as Z.

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