VG40 Series

Main unit

43

Link cable MZ41-B5(0.5 m), MZ41-B01(1 m), MZ41-B5(5 m)MZ41-10(10 m)

Conditions, etc.

Entire system MG41 main unit MG42 hub unit

MG41-NC (for CC-Link, Ethernet)

Main unit

MG41-NE

(for Ethernet)

43

Hub unit

155 155

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Description

MG41-NC (CC-Link/Ethernet incorporated) / MG41-NE (Ethernet incorporated) / MG42-4 (hub unit) 1 to 100 units (Connection of 101th unit and later disabled)

0 to 4 units

* Common to MG41-NC and MG41-NE

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MG42



Unit: mm

Remarks

Up to 24 connected MG42 hub units

MG10/20/30







Specifications

Communication method

No. of connectable measuring

Item

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Connectable measuring units			DK800S, DK830S, DK800A/DK800B Series, DK10, DK25, DK50, DK100, DK110, DK155, DK205						
Connection cable length			MG41 main unit to MG42 hub unit, MG42 total cable length to MG42 hub unit: 0.5 m, 1 m, 2 m, 5 m, 10 m Total cable length from MG41 main unit: 30 m max. (Max. current: 4 A or less)						Connection cable MZ41-** (optional)
Resolution									
110001010	Measuring unit resolution	0.1 µm	0.1 µm	0.5 µm	1 <i>u</i> m		5 <i>u</i> m	10 µm	
	(Input resolution)	0.5 µm	_	0.5 µm	1 <i>u</i> m		5 µm	10 µm	
Measurin	ng unit data fetching capacity	10 Mbps data transfer		Maximum 10.000	0 data/sec (when 1	100 axes are c	onnected)		Data for one axis is counted as one data.
	<u>,</u>		Calculation of ma						
Peak-h	old function								
Output-enable data		Single axis							
		At addition and subtraction	Current, maximum, minimum, and peak-to-peak values of addition and subtraction axes of two axes						Single-axis calculation of addition and subtraction axes is disabled.
Compa	rator function		Data of each axis (single axis,						
	Comparator setting values		2 values	4 values	;	8 value	es	16 values	1
	No. of setting value sets		16 groups	8 groups	6	4 group	ps O	2 groups	
Eth a sea			× .	100Base-T (compliant with	h IEEE 802.3) 100	Mbps/10 Mbp	s (Auto-negotiation)	0	
Etherne	et								
Reset for	unction			The Current val	lue for each axis is	s reset (with co	mmand).	0	
Preset f	function			The Value is preset to	the current value	of each axis (v	with command).	0	
Datum-	point setting function			The Datum poin	t of each axis is se	ettable (with co	ommand).	0	When master calibration function
Referer	eference point function The datum point of each axis can be reproduced using the reference polit (with command).				mand).	is not used			
Master calibration function		Master calibration of each axis can be reproduced using the reference point (with command).						Addition and subtraction axes are unavailable.	
Measuring unit product information			The product information	The product information of the connected measuring unit can be acquired (with command). Product code. serial no production date					
							Ethernet	CCELink	
				Reset function			0	×	
				Preset function			0	0	
			Command	Datum-point setting functio	n		0	0	When master calibration function
				Reference point function			0	0	is not used
				Master calibration function			0	0	
				Comparator value setting			0	0	
				Comparator group number	setting		0	0	
				Start			0	0	
Comma	and/setting enabled			Pause			0	0	
or disat	bled for			Latch			0	0	
each co	ommunication line		Data output	Current value/Peak value ((All axes)				
				Current value/Peak value (each unit)					1
				Comparator judgment result					
				Alarm (Communication/Measuring unit)					1
				Software version	× /				1
				Measuring unit product info	ormation				
			Settings	Input resolution					
				Display and output resoluti	ion				1
				Axis addition					
				Comparator mode (2, 4, 8,	or 16 values in 1	group)			1
Supply	voltage	Terminal board	12 to 24 V (11 to 26.4 V) DC					Used by adding power at a current of 4A or more or a six MG42 hub units basis. (Recommended: +24 V	
			System total: Max. current 4 A						
Power of	consumption	Cautions for	If system power consumption exceeds the maximum current, supplying power to a succeeding MG42 hub unit enables the main unit to be connected to the succeeding MG42 hub unit						
		connecting conditions	<details consumption="" each="" for="" of="" power="" unit=""> MG41 main unit: 4 W, MG42 hub unit: 1 W/unit, Measuring unit supply: 1 W/unit</details>						1
Operating temperature and humidity range			0 to +50 °C (no condensation)						1
Storage temperature and humidity range -10 to +60 °C (20 to 90 % RH)									
Mass MG41: 300 g MG42: 250 g									

MG41: 300 g MG42: 250 g

* If DK800S connected to MG40 is connected to LT30 or MG10/20, the reference point cannot be recognized. For more information, contact our Sales Dept. in charge





Main module specifications Model MG10-P1 12-24 Power supply Power consumption 2.0 W Power source Inrush current (10 ms) 10 A or le Power supply protection Communication I/F Baud rate setting 2400 Data length Communication Stop bit Parity Delimiter Maximum number of linkages Linkage function Maximum length of linking cable Source input (+COM) Input format Ph Open collector output sink type (-0 I/O Output format Pho Input signal Reset, paus Output signal MG20-DK, MG20-Counter modules Connectable modules Interface modules Accessory

*1: Total power of modules connected to MG10 should not be over 54W (at 12 VDC input) or 108 W (at 24 VDC input).

Counter module specifications						
Model		MG20-DK	MG20-DT			
Power consumption		1 W + power consumption for connected gauge	0.8 W			
	Corresponding gauge	DK Series (Voltage differential A/B quadrature input)	DT Series			
	Allowable resolution setting ⁻²	10/5/1/0.5/0.1 µm	5 µm(DT12/32) 1 µm(DT512)			
		Set with DIP switch				
Measuring unit input	Maximum response speed	Subject to the specification of the connected gauge	1m/s			
	Maximum response acceleration	REF-LED (reference-point loaded) shows on the display after the reference point is detected.	2400m/s ²			
	Reference point	Set "0" or preset value on the counter when the reference point is detected.	_			
Others	Alarm	S-ALM LED activates by excess speed/acceleration of measuring unit. C-ALM LED activates by excess speed of the internal circuit of counter.				
		The Alarm display is cancelled by reset command from MG10 or with the reset button of main unit.				

*2: Set the resolution value of the connected gauge

Interface module specifications						
Model		MG30-B1				
Power consumption						
	Input format	Source type (+COM) Counterpart output circuit: current				
	Input Ionnat	Ph				
1/0	Output format	Current sink input (-COM) Counterpart output circuit:				
10	Oulput ionnat	Ph				
	Input signal	DRQ / channel address / measuring				
	Output signal	BCD data (6 digi				
Output setting		Timer (1 to 1				
All models	Operating temperature					
All models	Storage temperature					



MG30-B1/B2 20.5 ▫▢ 02 24.5 4.35 64.5



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DT(MT)

MG

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	MG10-P2				
V (11-26.4 V) DC, Min. startup time: 100ms or less					
+ total power consumption for connected modules"					
s (when maximum number of modules are connected)					
Fuse (5-A fuse is built in.)					
RS-232C (EIA-232C or equivalent)					
/ 9600 / 19200 / 38400 bps (set with DIP switch)					
7 / 8 bit (set with DIP switch)					
1 / 2 bit (set with DIP switch)					
None / ODD / EVEN (set with DIP switch)					
CR / CR+LF (set with DIP switch)					
16 (total of counter modules: 64)					
10 m					
	Sink input (–COM)				
otocoupler insulation, e	xternal power: 5-24 V DC				
COM)	Source type (+COM)				
tocoupler insulation, external power: 5-24 V DC					
se, start, latching, and data out trigger to whole channels					
Integrated alarm					
DG, and MG-20DT (available for mixed use, up to 16 modules) ^{*1}					
MG30-B1, MG30-B2 ⁻¹					
LZ61: Link cable (1m)					

MG30-B2 1 W nt sink input (-COM) Current sink input (+COM) Counterpart output circuit: source type (+COM) otocoupler insulation, external power: 5-24 V DC source type (+COM) Source type (+COM) Counterpart output circuit (+COM): source type (-COM) otocoupler insulation, external power: 5-24 V DC mode shifting / comparator shifting / reset / start / posing / reference-point loaded ts) / READY / code / Go/No-go output / alarm / reference-point 28 ms) / OUT / OR / polarity (set with internal DIP switch) 0 to +50 °C(No condensation) -10 to +60 °C(20 to 90%RH)

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