

Digital gauge DF805S / DF812S series

Main specification								
Model name	DF805SR	DF805SFR	DF805SLR	DF805SFLR	DF812SR	DF812SFR	DF812SLR	DF812SFLR
Measuring range	5mm				12mm			
Resolution					0.1μm			
Accuracy (at 20°C)					1μm			
Protective structure	IP66		When a φ4mm tube is connected: IP67		IP66		When a φ4mm tube is connected: IP67	

Connection cable CE34 series (CE34 cable is necessary when connecting DF805S/812S series to MF10 series)

Main specification						
Model name	CE34-005	CE34-02	CE34-05	CE34-10	CE34-15	CE34-20
Cable length	0.5m	2.0m	5.0m	10m	15m	20m

Digital Gauge DT series

Main specification								
Model name	Standard model	Protected type model	Standard model	Protected type model	Standard model	Protected type model	Standard model	Protected type model
	DT512N	DT512P	DT12N	DT12P	DT32N	DT32NV	DT32P	DT32PV
Measuring range	12mm				32 mm			
Resolution	1μm				5μm			
Accuracy (at 20°C)	6μm				10μm			
Protective structure	-	IP64 or equivalent	-	IP64 or equivalent	-	-	-	IP64 or equivalent

Interpolator for DT series MT20 series (MT20 interpolator is necessary when connecting DT series to MF10 series)

Main specification	
Model name	MT20-01 (For DT512 series) / MT20-05 (For DT12/32 series)
Resolution	Resolution 1μm / Resolution 5 μm

Digital tolerance indicator / Counter module MF10 series

Main specification			
Model name	Digital tolerance indicator		Counter module
	MF10-P1	MF10-P2	MF10-CM
Function	NPN output (current sink) / PNP output (current source)		Counter module for MG50
I/O	Number of Go/No Go judgement output 2, Number of external inputs 1		-
Minimum display unit	0.1μm		-
Cable length	input/output, power cable 2m		-
Mounting method	35mm DIN rail mounting		-
Power supply voltage	+10-30V DC including ripple (p-p) 10%		-
Power consumption / Consumption current	2.1W or less / 85A or less		-
Mass	75g		-

Interface unit MG50 series

Main specification			
Model name	Main module		Distribution module
	MG50-EC	MG50-CL	MG51
Communication protocol	EtherCAT / CC-Link		Data transferred to main module by dedicated protocol
Baud rate	100Mbps / Maximum downlink speed of 10 Mbps		-
Node address setting method	Set with decimal rotary switches or software		-
Node address range	000-192 / Max. 64		-
Maximum connectable counter modules	30 / 16		10
Maximum connectable distribution modules	8		-
Maximum cable length	Maximum cable length between main module and distribution module: 30m		
Mounting method	35mm DIN rail mounting		
Power supply voltage	DC24V (20.4-26.4V)		
Power consumption / Consumption current / Current consumption	2.4 W or less 100 mA or less		2W or less 80 mA or less

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NEW gauging system

Magnescale

SPEED X PRECISION



Tough Sensor
 Speed X High Rigidity



Magnescale Co., Ltd.

「Speed」 × 「High Rigidity」

NEW

Fieldbus interface unit

EtherCAT  **CC-Link V2**

A new network interface compatible with our Tough Sensor lineup. Data output and Go/No Go judgement functions are available. Output data can be calculated and controlled by PLC via open network.



Main module MG50
Maximum connectable counter modules
EtherCAT MG50-EC Maximum 30
CC-Link MG50-CL Maximum 16

Distribution module MG51
Maximum connectable distribution modules per main module
Maximum 8

Wire-saving

Total extension 30m

2 wire power 2 output line RS485 wiring



Maximum connectable counter modules per distribution module

Maximum 10

Counter module MF10

Slim body and space saving design

10mm

8 types of functional calculations
Function block

8 types of calculation functions are provided by the Function Block. Calculation functions can be executed easily by PLC programming.

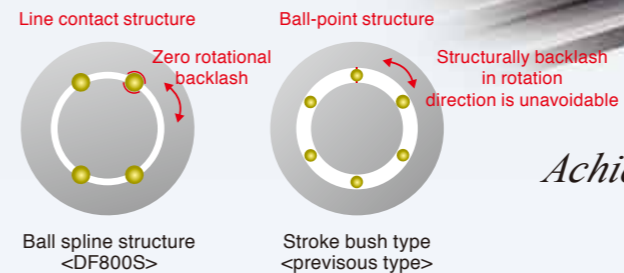
FB	Maximum	Minimum	Average
	Flatness	Gap	Torsion
	Warpage	Thickness	

•Our function block is compatible with NJ series (OMRON), and Q and L series (Mitsubishi) (Our function block does not support some versions. For more details, please contact our sales staff.)

High resistance to shock and vibration

Ball spline structure

The new ball spline construction provides approximately 5 times the radial load resistance and zero rotational backlash compared to the previous model which utilized a ball-point contact structure.



Achieved numbers of strokes: **92 million**
(full stroke sliding test 2 years passed as of March, 2014)

Resistant to the effects of water and condensation

IP67 *1

Magnescale employs a magnetic detection principle that is resistant to the effects of oil, water and condensation. This principle allows for the achievement of high positioning accuracy even in severe environments. The spindle can be driven by air easily with the right angle type using the provided hose connection. This adhesion structure has successfully completed a 72 hour underwater stroke test which exceeds an IP67 rating.



*1. When air hose is connected for right angle type.

DF800S Series
Slim & Compact

Compact ø8mm body is suitable for various measurement applications. Our broad lineup including angle and flange type models make it easy to integrate into machines and route the cables.

