JENIX

ISO9001

DSC-Q01 (1axis display) user's manual

DSC-Q01

DONG SAHN JENIX CO., LTD.

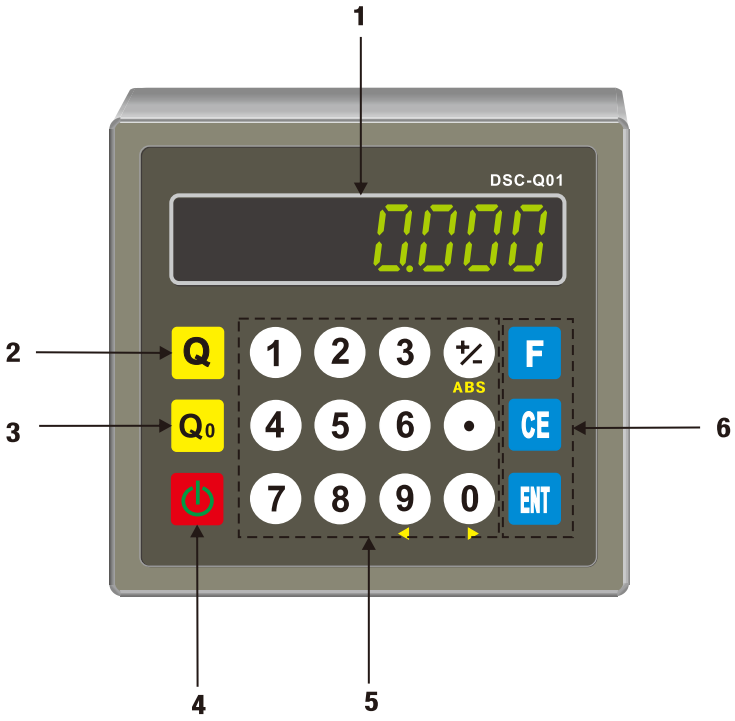
MANUAL 131105

Contents

Caution and trouble shooting

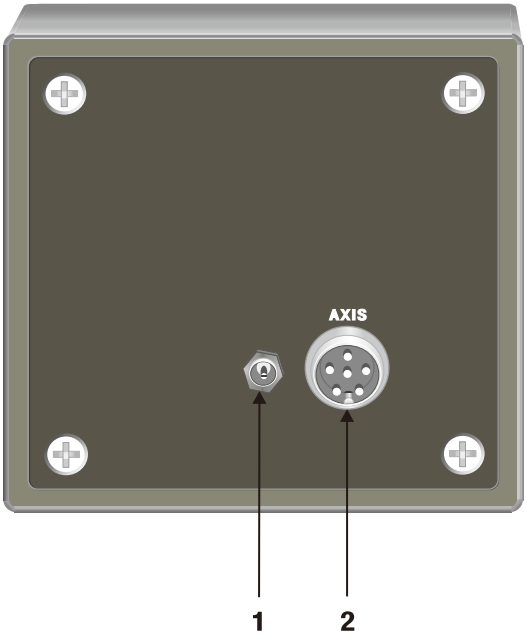
Description of DSC-Q01 counter

1. Front side



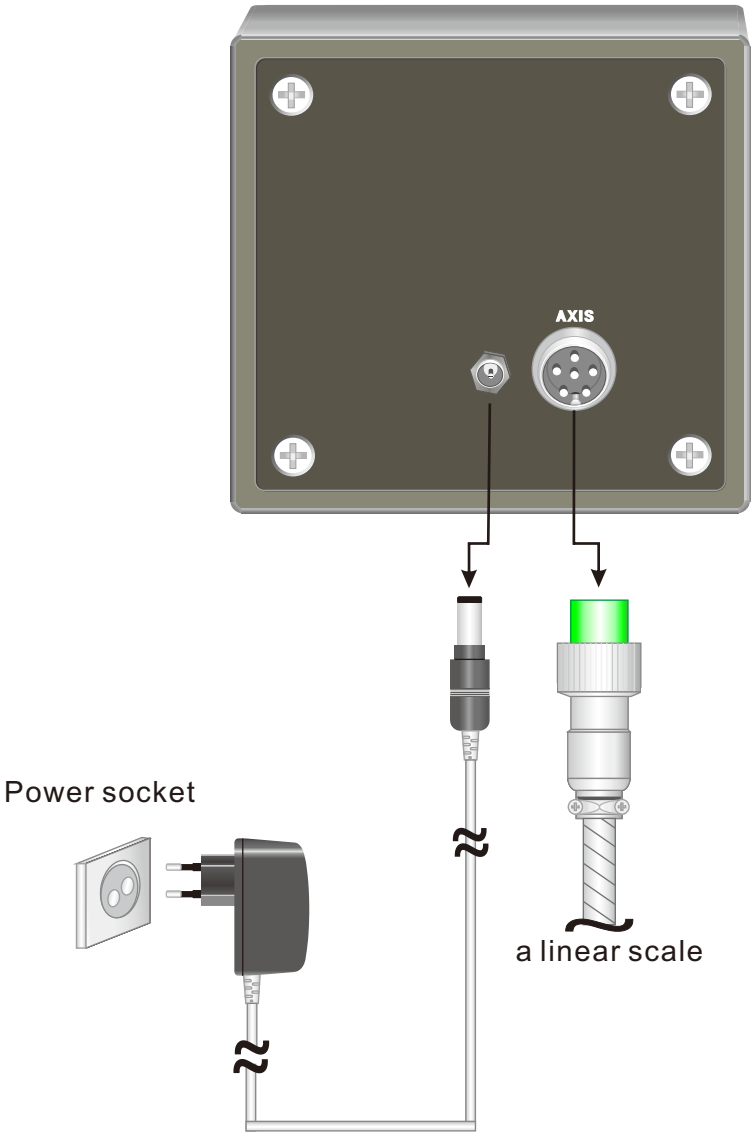
Keys	Description
1. Display area	shows position value
2. Axis selection key	select present axis
3. Axis-Zero key	make the display value zero
4. Power key	turn on / off the power
5. Number key	0~9 numbers
6. Function key	calls one of the functions

2. Rear side



Keys	Description
1. Power input 2. Connector	DC adapter input to connect with a scale

3. Connection



4. Description of the keys

Keys		Description
Q	**Axis key**	select axis
Q0	**Axis Zero key**	make the axis zero
0 ~ 9	**Number key**	input values
•	**Dot key**	decimal point
+/-	**+/- key**	+ - value conversion
F	**Function key**	to call function menu
CE	**Cancel key**	cancel present processing or operation
+/- ABS	**ABS function key**	absolute function at any position
9 ◄ 0 ►	**Direction key**	to move in the function or ABS numbers
ENT	**Enter key**	completion of present process
⏻	**On/Off key**	turn on / off the power

Basic operation

1. Input value / Preset

Q → input → ENT	
Ex. input “12.45” Q 1 2 • 4 5 ENT → 12.450 input “-31.25” Q 3 1 • 2 5 +/- ENT → -31.250	

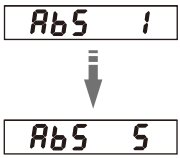
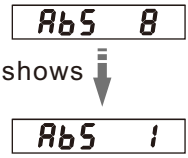
2. Display Zero

Q_0	it shows “0.000”
Ex. Q_0 → 0.000	

3. ABS / INC conversion (Absolute / Incremental)

+/- ABS	ABS designation key 99 ABS numbers can be saved. (1~99) Move in the numbers by using arrow keys.(⑨ ⓪)
conversion from INC(normal) to ABS +/- ABS → ABS 1	“ABS 1” is flickering and disappeared. This means now in “ABS” mode.
conversion from ABS to INC(normal) +/- ABS → Inc	“Inc” is flickering and disappeared. This means now in “INC” mode.
ABS and INC are changed in turn whenever +/- ABS key pushed.	

4. Searching for one of the ABS numbers

(9) (0)	move by arrow keys
Ex. To find ABS number 5 (0) • • • (0) push arrow key until 5 shows 	
To find ABS number 1 (9) • • • (9) push reverse arrow key until 1 shows 	

- To input coordinates of the axis to an ABS number, type its value or “0.000” while the ABS number is shown.

Function

Function

F	call function menu

F
- 1. Changing resolution (factory setting: 5/1000)
- 2. Direction change
- 3. Rate or correction
- 4. Double counting
- 5. Inch / mm conversion
- 6. Initialization
- 7. Test function

1. Changing resolution (menu>scale)

1. 5/1000

F → ENT → 5 → ENT	▸ This resolution should be same as the scale's. ▸ 5/1000 is basic factory setting. ▸ After setting, "0.000" will be shown.

F	ISCALE	
ENT	5.000	
5	5.000	
ENT	0.000	

2. 1/1000

F → ENT → 1 → ENT	▸ This resolution should be same as the scale's. ▸ 5/1000 is basic factory setting. ▸ After setting, "0.000" will be shown.

F	ISCALE	
ENT	5.000	
1	1.000	
ENT	0.000	

3. 1/100

F → ENT → 1 → 0 → ENT	▸ This resolution should be same as the scale's. ▸ 5/1000 is basic factory setting. ▸ After setting, "0.000" will be shown.

F	1SCALE
ENT	5.000
1 0	10.000
ENT	0.00

4. 5/10000

F → ENT → 0 → • → 5 → ENT	▸ This resolution should be same as the scale's. ▸ 5/1000 is basic factory setting. ▸ After setting, "0.000" will be shown.

F	1SCALE
ENT	5.000
0 • 5	0.500
ENT	0.0000

2. Direction change (menu>dir)

F → 0 → ENT → 9 / 0 → ENT

+ or - direction change

F 0	2.dir
ENT	dir ---]
9 / 0	dir [---
ENT	0.000

3. Rate or Correction (menu>rAtE)

F → 0 → 0 → *input "RATE"* → ENT

- When there is a difference between the real distance and displayed distance.
- Basic rate is 1.000000
- If you input 0.000000, there will be nothing displayed.

F 0 0	3.rAtE	
ENT	1.000000	*flickering*
input 1.0	1.000000	1.0 or 1.000000 *instead, this rate*
ENT	0.000	

$$\text{Rate} = \frac{\text{real distance (dial/block gauge)}}{\text{displayed distance (numbers at the readout)}}$$

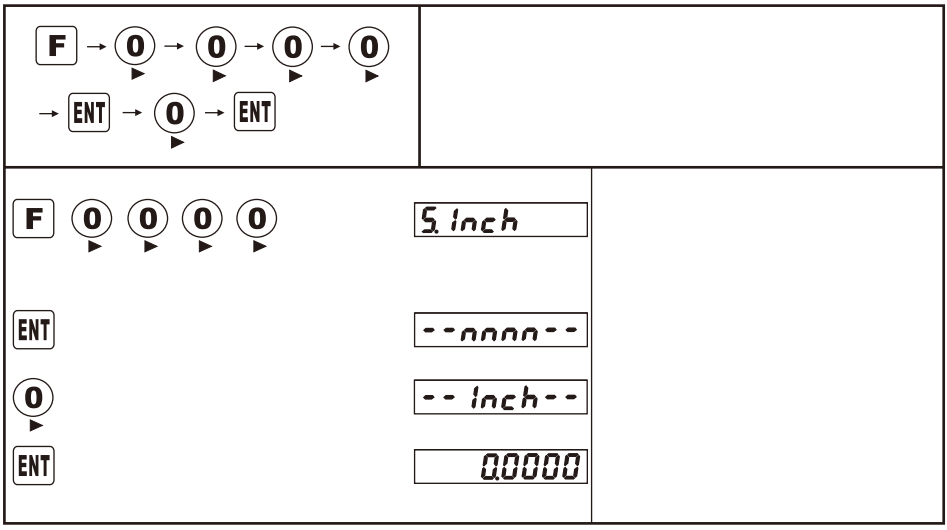
Ex. Real distance is 100mm but the readout (a display) shows 100.4mm, $\frac{100}{100.4} = 0.996$		
F 0 0	3rAtE	
ENT	1.000000	*flickering*
0 • 9 9 6	0.996000	*type* "0.996"
ENT	0.000	

4. Double counting (menu>dIA)

F → 0 → 0 → 0 → ENT	diameter ↔ radius
F 0 0 0	4d IA
ENT	rAd
0	d IA
ENT	0.000

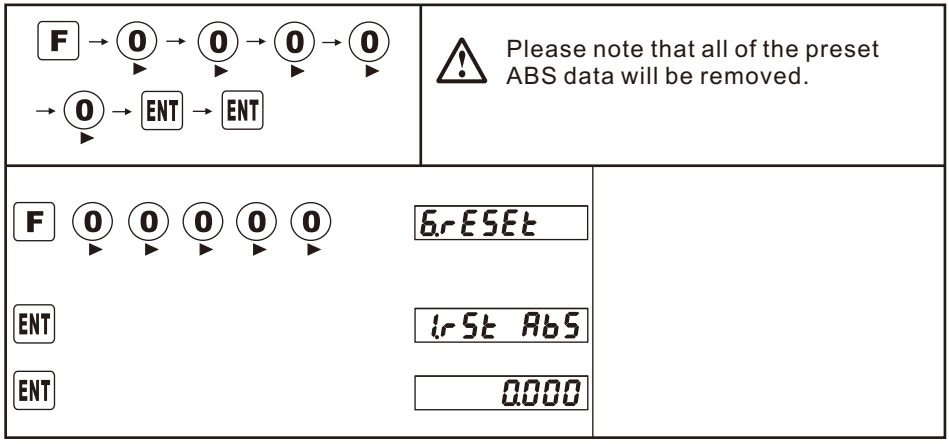
"dIA" is double of the radius

5. Inch / mm conversion (menu>Inch)



6. Initialization / Reset (menu>rESEt)

(1) ABS initialization



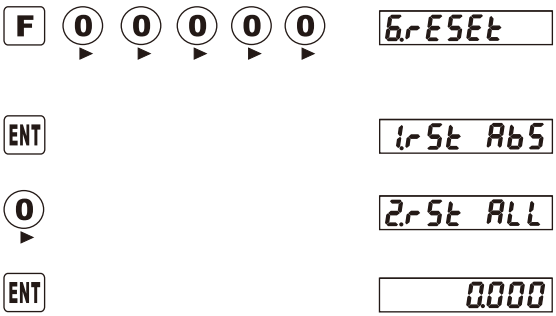
(2) Program initialization / Reset

F → 0 → 0 → 0 → 0 → 0 → ENT → 0 → ENT

⚠ Please note that all of the memorized data including ABS will be removed.

All setting value returns to factory setting.

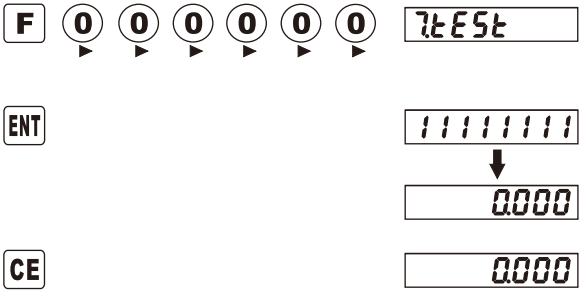
Factory setting: resolution 5/1000
counting direction
rate 1.000000
unit: mm
radius



7. Test function (menu>tESt)

F → 0 → 0 → 0 → 0 → 0 → 0 → ENT

Check if the LEDs are working well



Caution and trouble shooting

1. Caution

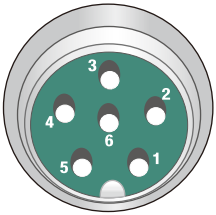
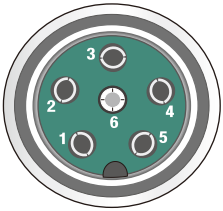
- Display counter and ground should be safely connected.
- To prevent malfunction or noise, please leave any electronic appliances away from the display counter.
- Please put any motor around the display counter.
- Please leave the display counter away from high voltage or where the temperature changes sharply.
- Please use only available voltage, AC 110V ~ 220V.

2. Trouble shooting

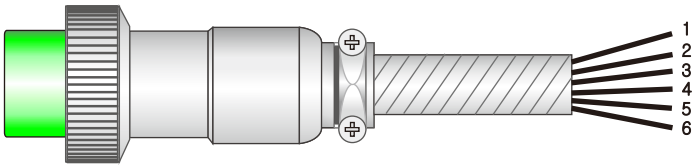
Troubles	Cause or Solutions
Power off / no power on	• Check if the power key(⏻) works well. • Check the power source • Check the connection state with the adapter. • Disconnect a scale from the counter and check.
There is a beep sound or keypad doesn't work.	• Mostly caused from inflowing of oils or fluids. • Needs to be replaced.
Inaccuracy problem	• Check the ground state. Noise can be a reason. • Check if the screws of the brackets are loosen. • Dusts or oils can cause inaccuracy: needs cleaning • Backlash of the machine tools can be another reason00. • Readhead, inside glass broken or connection failure can cause the problem: Needs to be replaced. • If there is same amount of error, regardless of distance, please do the correction. (see page 3-3 Rate or Correction)
It always shows double value.	• Check if the rate is set as 1.000000 (page 3-3) • Check if it is set as "double counting" function (page 3-4)
When the value is not changing or stands still at 0.000	• Do the program initialization (page 3-6)
Caution	• Be carful that oils or dusts not to flow into the keypad or linear scale.

※ This product can be modified without previous notice to improve quality.

3. PIN (6-pin) Information

Counter	Scale
	
1 PIN : + (+5V) 2 PIN : A 3 PIN : B 4 PIN : Z 5 PIN : − (0V) 6 PIN : Shield	1 PIN : + (+5V) 2 PIN : A 3 PIN : B 4 PIN : Z 5 PIN : − (0V) 6 PIN : Shield

PIN & Color



PIN	Color	Signal
1 PIN	RED	+ (+5V)
2 PIN	YELLOW	A (+4.2V)
3 PIN	WHITE	B (+4.2V)
4 PIN	GREEN	Z (+0.4V)
5 PIN	BLACK	− (+0V)
6 PIN	BLACK SHIELD	Shield (GND)

DC adapter spec.

Input	AC 100~240V / 60Hz, 0.6A
Output	DC5V ⎓ 1A
Size	Internal diameter: ⌀ 2.1mm External diameter: ⌀ 5.5mm

CERTIFICATE OF WARRANTY

- We, Dong Sahn JENIX Co., Ltd. suggest a limited warranty against various defects describes befow for two years from the date of purchasing, according to the regulation for the preservation of consumer's right.
- Please contact the sales agent or service center as defects were found,
- Please put down your purchasing date and the others below blanks.

Product	Digital Linear Scale (DRO)	Model	DSC-Q01
Date of Purchase		Serial number	
Agent		Amount	

GUIDANCE FOR THE COMPENSATION OF CONSUMER'S DAMAGE

KINDS of DAMAGES			DETAILS	
			Within the warranty period	After the warranty period
Damage happened in normal operation, or functional defect	Functional or mechanical defects happened in normal operation		Gratuitous Exchange	
	Defects happened during shipping or installing		〃	
	Repairable	Recurrence of a trouble	〃	
		Recurrence of same trouble for over 4 times continuously	〃	
	No repairable	In case of stop producing of parts, or other reason	—	Exchange for new model as compensation
Functional defect which caused from mishandling or misuse conducted on purpose by users.	Defect caused from careless handling or repairing and remodeling.		Charged	Charged
	Defect caused from repairing by non authorized personnel.		〃	〃
	Defect from applying non-allowable Voltage (use only AC 220V)		〃	〃
	Defect or broken from dropping down when moving it another place, after installation.		〃	〃
Others	The cause of trouble is not from product itself but from exterior factor.		〃	〃
● In the case that the cause is from the natural calamity. ● When life span of consumable parts is almost done or over.			Charged	

Please be informed this certificate is not reissued.

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