

JENIX DIGITAL READOUT SYSTEMS

CONTENTS

Digital Readout

1 axis	DS-Q01	AT-01	DS-S01	DSC-801 < DSC-801M DSC-801G>
2 axis			DS-S02	DSC-802 <DSC-802M DSC-802L DSC-802G>
3 axis	DSC-L100		DS-S03	DSC-803 <DSC-803M DSC-803L DSC-803EDM>
4 axis	DSC-L100			DSC-804 <DSC-804M>

* For DSC-L100, please refer to attached L100 brochure

Linear Scale

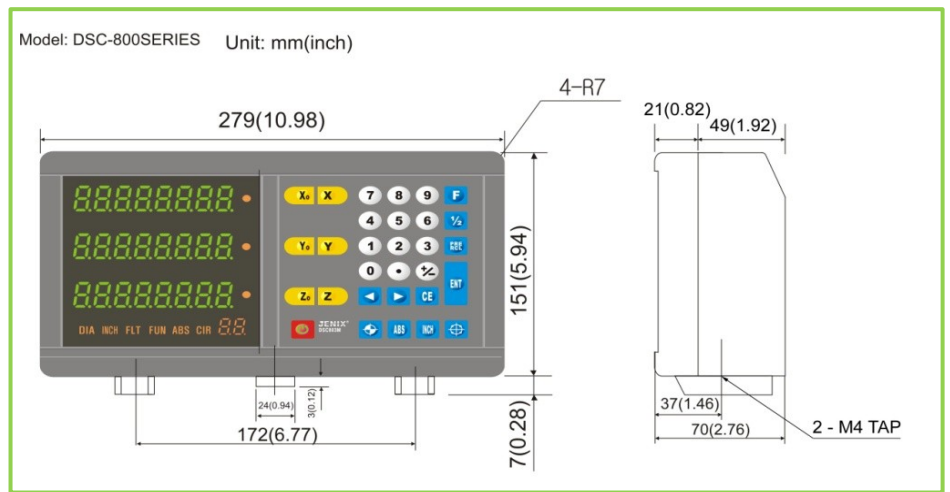
Optical	JSN	0.1L / 0.5L / 1L / 5L (L or LF)
	JSS	0.1L / 0.5L / 1L / 5L (L or LF)
	JSM	0.1L / 0.5L / 1L / 5L (L or LF)
Magnetic	MSP	10L / 5L TTL / SPI
	MSS	10L / 5L TTL
	MSOW	10L / 5L TTL

SPECIFICATIONS of JENIX Display Counter (A)

Model	DSC-800 Series (801~804)	DS-803EDM
Display	Green 7 segment (LED), 8 digits	Green 7 segment (LED), 8 digits
mm/inch	Direct conversion	Direct conversion
Display resolution	10 μ m, 5 μ m, 1 μ m, 0.5 μ m, 0.1 μ m inch: 0.002 ~ 0.000004	10 μ m, 5 μ m, 1 μ m, 0.5 μ m, 0.1 μ m inch: 0.002 ~ 0.000004
ABS	100 points (No.0~99)	100 points (No.0~99)
Memory backup	10 years without power	10 years without power
Operation Temp.	-5°C ~ 45°C / 23°F ~ 113°F	-5°C ~ 45°C / 23°F ~ 113°F
Power Consumption	10W	10W
Dimensions & Weight	mm: 279 x 151 x 70 (1.6 kg) inch: 10.9 x 5.9 x 2.8 (3.52 lb)	mm: 279 x 151 x 70 (1.6 kg) inch: 10.9 x 5.9 x 2.8 (3.52 lb)
Power	Adapter (DC 5v, 2A), input AC 110~220V 50/60Hz	Adapter (DC 5v, 2A), input AC 110~220V 50/60Hz
External housing	Aluminium Die casting	Aluminium Die casting
Keypad	Membrane type	Membrane type
Function lamp	Red light	Red light
RS232C (with a PC)	Optional (115200bps, 8bit data, no parity, 1 stop bit)	Optional (115200bps, 8bit data, no parity, 1 stop bit)
EDM steps		4 steps

Main Functions	1. Preset / Preset recall 2. Divide (1/2) function 3. mm/inch conversion 4. Incremental / ABS conversion 5. Bolt Hole Circle 6. Changing resolution 7. Changing direction 8. Rate correction 9. Reset (ABS/Program) 10. Magnetic / Optical scale conversion 11 LED test 12. Summing up two axes 13. Double counting 14. Tool offset
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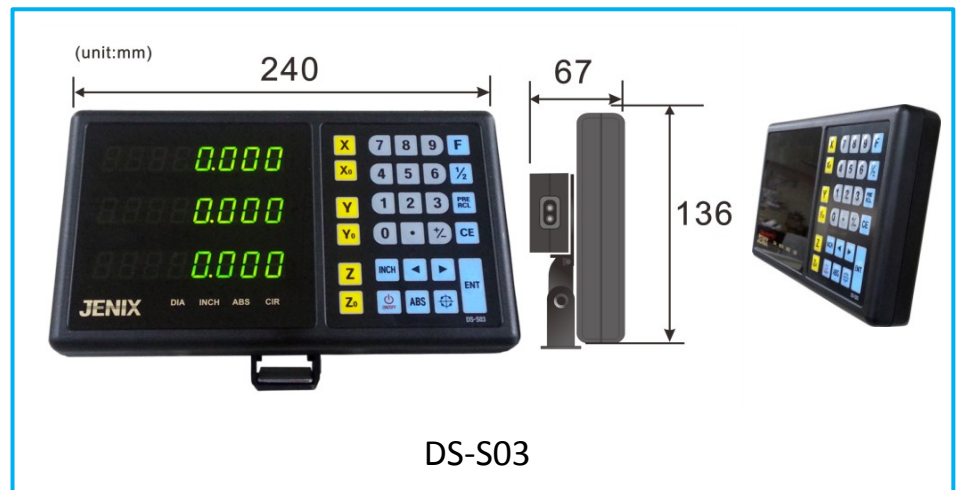
Readout	Kinds of Keypad
801	801M (X), 801G (G)
802	802M (X), 802L (X, Z), 802G (Y, Z)
803	803M (X, Y, Z), 803L (X / Z1 / Z2)
804	804M (X, Y, Z, Q)
803EDM	803EDM (X, Y, Z)



SPECIFICATIONS of JENIX Display Counter B

Model	DSC-Q01 (1-axis only)	DS-S00 Series (1, 2, 3-axis only)
Display	Green 7 segment (LED), 8 digits	Green 7 segment (LED), 8 digits
mm/inch	Direct conversion	Direct conversion
Display resolution	10 μ m, 5 μ m, 1 μ m, 0.5 μ m, 0.1 μ m inch: 0.002 ~ 0.000004	10 μ m, 5 μ m, 1 μ m, 0.5 μ m, 0.1 μ m inch: 0.002 ~ 0.000004
ABS	10 points (No.1~10)	10 points (No.1~10)
Memory backup	10 years without power	10 years without power
Operation Temp.	-5°C ~ 45°C / 23°F ~ 113°F	-5°C ~ 45°C / 23°F ~ 113°F
Power Consumption	5W	24W
Dimensions & Weight	mm: 86 x 80 x 39, 0.26kg inch: 3.4 x 3.2 x 1.5, 0.57lb	mm: 240 x 136 x 32 (64 to adapter), 0.8kg inch: 9.5 x 5.4 x 1.3 (2.5 to adapter), 1.8lb
Power	Adapter (DC 5V, 1A), input AC110~220V 50/60Hz	Adapter (DC 12V, 2A), input AC 110~220V 50/60Hz
External housing	Aluminium Die casting	Plastic case
Keypad	Membrane type	Membrane type
Function lamp	No Function lamp	Red light
RS232C (with a PC)	Optional (115200bps, 8bit data, no parity, 1 stop bit)	Optional (115200bps, 8bit data, no parity, 1 stop bit)

Main Functions	1. Preset 2. mm/inch conversion 3. Incremental / ABS conversion 4. Changing resolution 5. Changing direction 6. Rate correction 7. Reset (ABS/Program) 8. LED test	1. Preset / Preset recall 2. Divide (1/2) function 3. mm/inch conversion 4. Incremental / ABS conversion 5. Bolt Hole Circle 6. Changing resolution 7. Changing direction 8. Rate correction 9. Reset (ABS/Program) 10. LED test 11. Summing up two axes 12. Double counting 13. No 4-axis and EDM model
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SPECIFICATIONS of Quill counter & magnetic scale

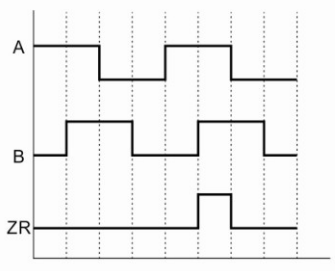
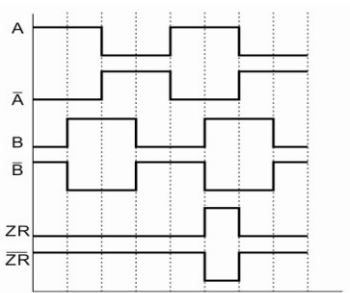
Model	DS-AT01
Display	Green 7 segment (LED), 6 digits / Magnetic encoder built in
mm/inch	"mm" only
Display resolution	0.01mm (10 μ m) (0.0004 inch)
Operation Temp.	-5°C ~ 45°C / 23°F ~ 113°F
Power Consumption	5W
Dimensions & Weight	mm: 69 x59 x 20, 0.15kg (inch: 2.7 x 2.3 x 0.8, 0.33lb)
Power	Adapter (DC 5V, 1A), input AC110~220V 50/60Hz
External housing	Plastic
Keypad	Membrane type

Model	Magnetic Linear Scale
Dimensions & weight	215 x 45 x 15 (mm), 0.15kg (8.5 x 1.8 x 0.6 inch, 0.33lb)
Magnetic Pitch	5mm
Measurable distance	Standard 185mm (can be different from customer's demand)
Magnetic tape	Tape with a steel cover, aluminium stay & brackets

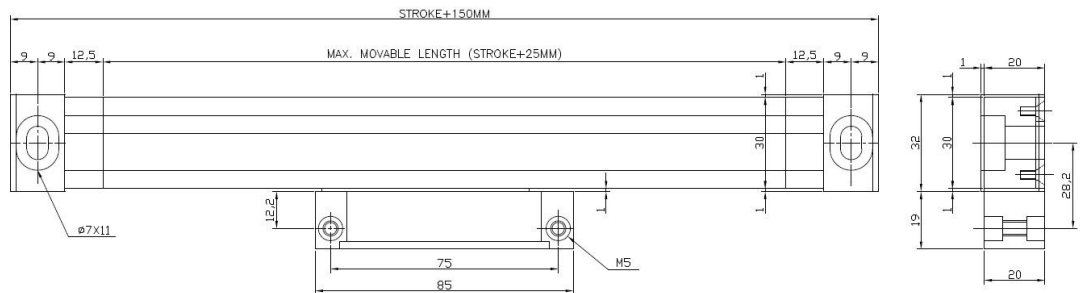
Package dimensions	220 x 165 x 85 mm, 0.62kg (8.7 x 6.5 x 3.4 inch, 1.37lb)
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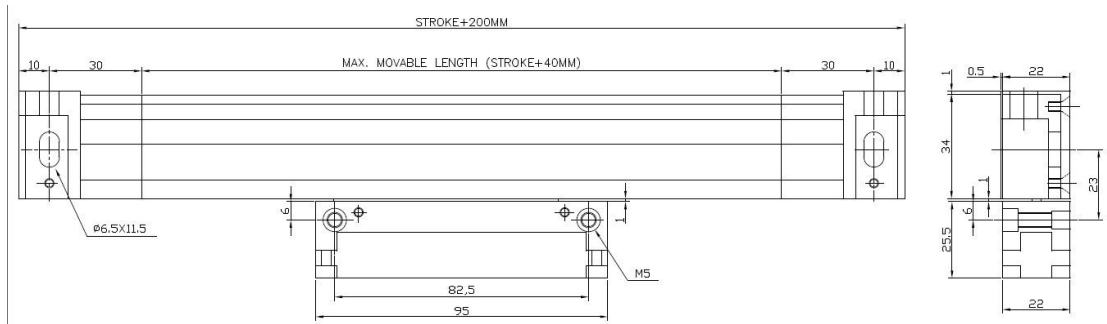
OPTICAL SCALE SPECIFICATIONS

JSN/JSS/JSM	0.1 μm	1 μm & 0.5 μm	5 μm	LF (NC scale)- Line Driver
Output Signal Wave				
Measurement Method	By a 20 μm grating pitch chrome-graduated glass scale			
Accuracy	2+2L/1000 mm	2+2L/1000 mm	3+3L/1000 mm	2+2L/1000 mm
Resolution (mm)	1/10000	1/1000 & 5/10000	5/1000	5/1000 or 1/1000
Output Pulse	2500 pulse/mm	250 pulse/mm	50 pulse/mm	250 pulse/mm
Max. Traversing Speed	9m/min	36m/min	60m/min	36m/min
Reference Signal	A reference pulse every 25mm			
Grating Period	0.02mm			
Max. Vibration	30m/s ² (3G)			
Moving Force	≤5N			
Working Ambient Temp.	-5°C ~ 45°C			
Storage Temperature	-20°C ~ 70°C			
Max. Cable length	25m (standard 3m)			
Supply Voltage	-5V, ±5%, 150mA			
Protective Design Grade	Equivalent to IP53			

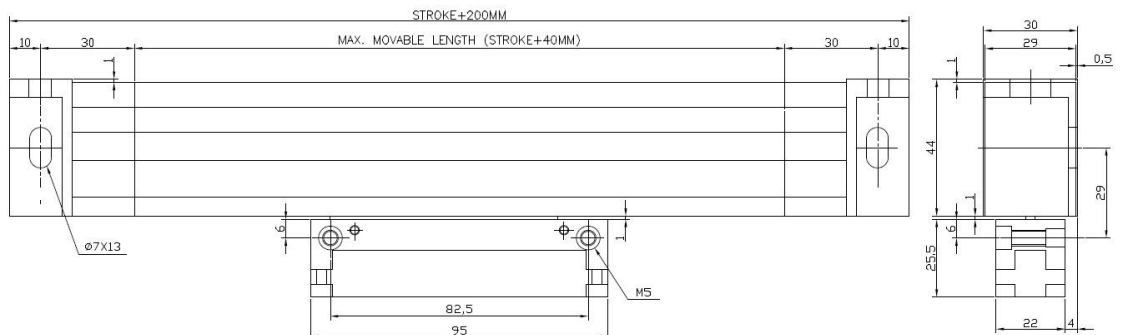
JSN

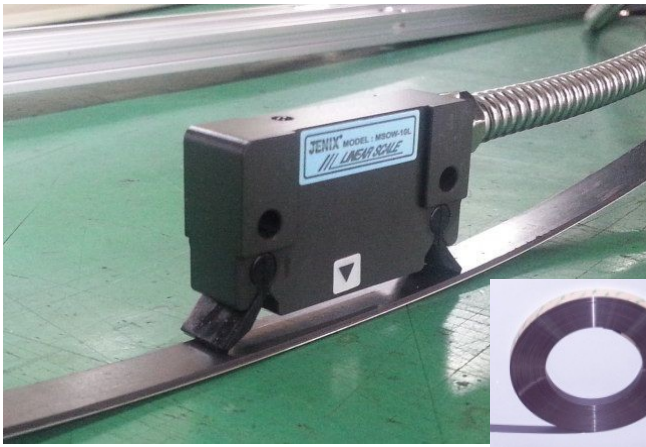


JSS

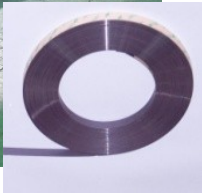


JSM

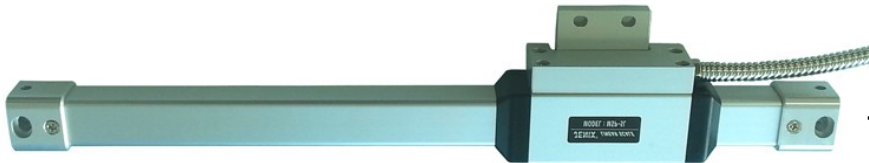




< MSOW >

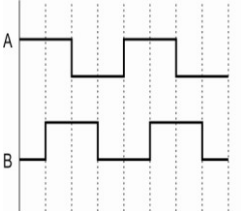
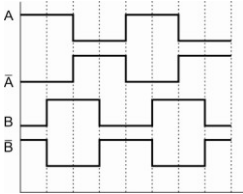


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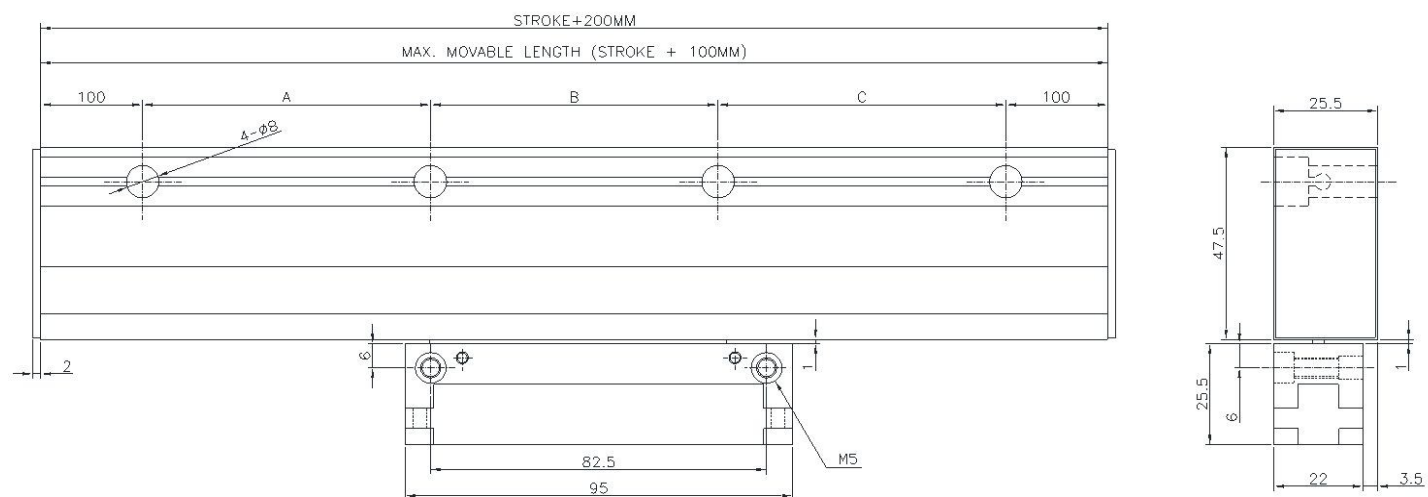
< MSP >

MAGNETIC SCALE SPECIFICATIONS

(10L/5L)	MSS	MSOW	MSP	LF (NC scale)
				
Measurement principle	Incremental			
Available resolution for digital outputs	0.01mm or 0.005mm			
Repeat accuracy	± 1 increment			
Accuracy	± 20 μm			
Protection class	IP53	IP67		
Working temperature	-40℃ to +120℃			
Stock temperature	-40℃ to +120℃			
Output levels	5V TTL		5V TTL or SPI	5V differential
Output currency per channel	± 4mA			
DC power supply	5V ± 2.5%			
Output frequency (5V-TTL level)	10KHz per channel A or B (edge rate 40MHz)			
Pole Pitch	2mm	5mm	2mm	2mm or 5mm
Maximum measuring length	5000mm	25m	2000mm	2000mm or 25m

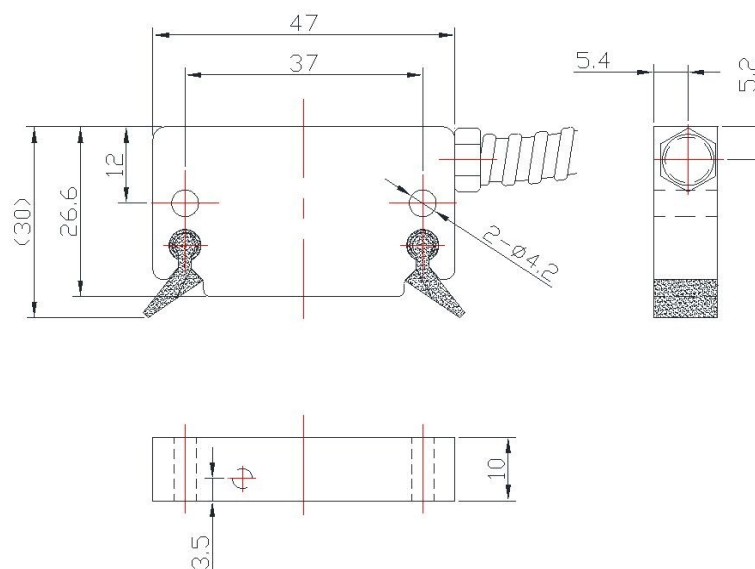
MSS

size unit: mm

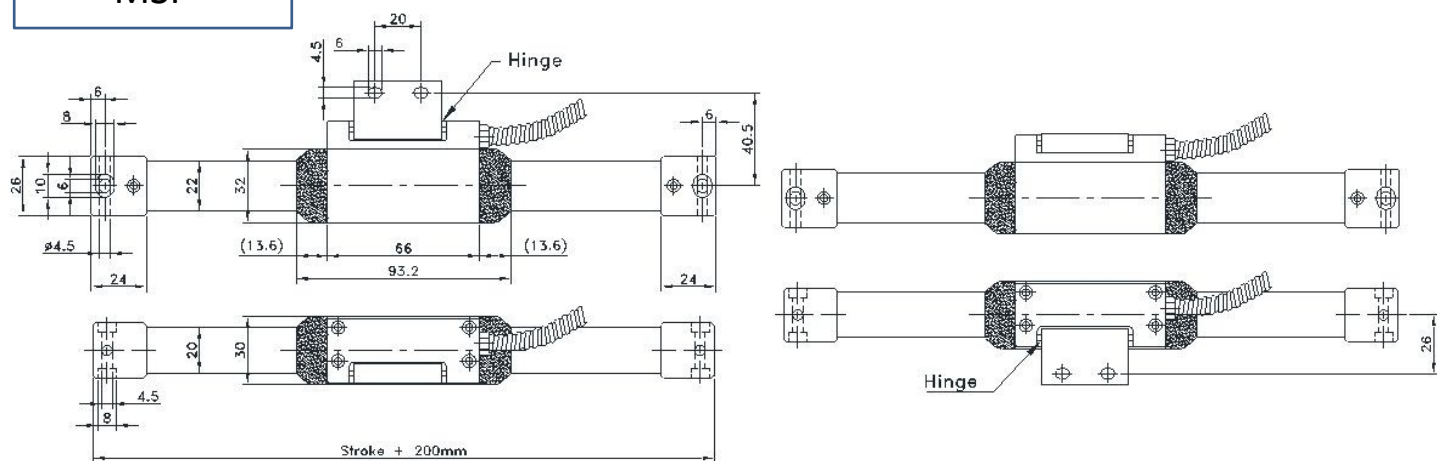


※ 치수 A,B,C 는 제품의 Stroke에 따라 간격이 정해짐.
※ A, B and c will be set according to each stroke.

MSOW ENCODER



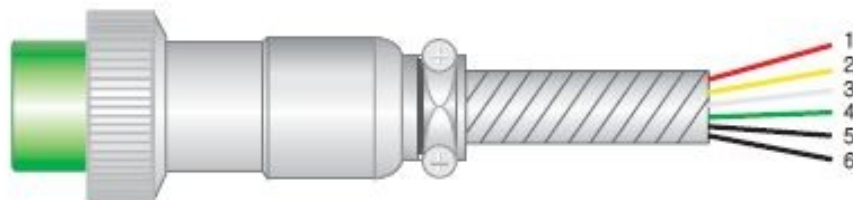
MSP



4. Connector 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)

PIN for DSC-803EDM Counter

					
Signal cable			803EDM counter		
2 PIN	A	YELLOW	2 PIN	A	WHITE
3 PIN	B	RED	3 PIN	B	GREEN
4 PIN	COM	WHITE	4 PIN	COM	BLACK