

# DWS1210

DRAW WIRE ENCODER  
SYSTEM

- Heavy Duty Construction
- Easy to Mount
- Range of Encoder Mounting Options
- Measure up to 10 meter length
- Incremental or Absolute Measurements
- High Flex Stainless Steel Wire



## MECHANICAL SPECIFICATIONS

Body	Aluminum
Cable	Stainless Steel
Drum Circumference	300 mm/turn
Measurement Length	0 mm to 10,000 mm
Cable Diameter	0.90 mm
Linearity (Standard)	+/-0.05% fs
Linearity (Optional)	+/-0.01% fs
Velocity(Max)	10 m/s
Acceleration(Max)	5 m/s (before cable deformation)
Operating Temp.	-20°C to +80°C
Storage Temp.	-30°C to +80°C
Weight	6 kg

## ORDERING CODE

DWS 1210 -         -

a      b      c      d      e      f      g      h      Encoder Resolution

**a Group Function**  
DWS=Draw Wire System

**b Basic Series Number**  
1210

**c Measurement Length**  
025=2500 mm, 050=5000 mm  
060=6000 mm, 100=10000 mm

**d Linearity**  
0=+/- 0.05% full scale (standard)

**e Measurement Type**  
I=Incremental Encoder  
B=Absolute Encoder - Binary Code  
G=Absolute Encoder - Gray Code

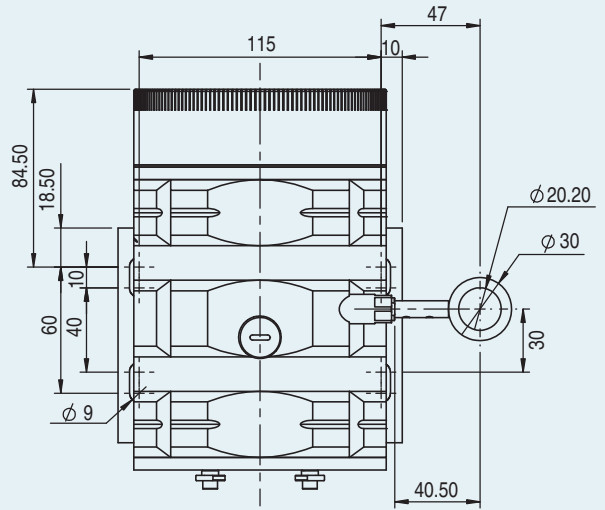
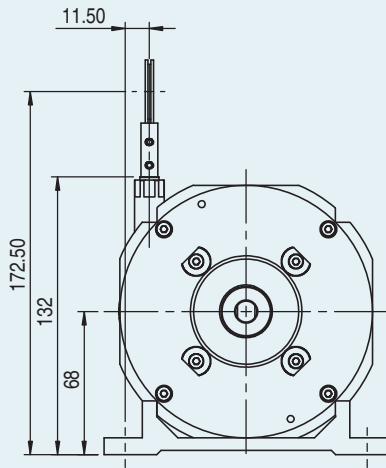
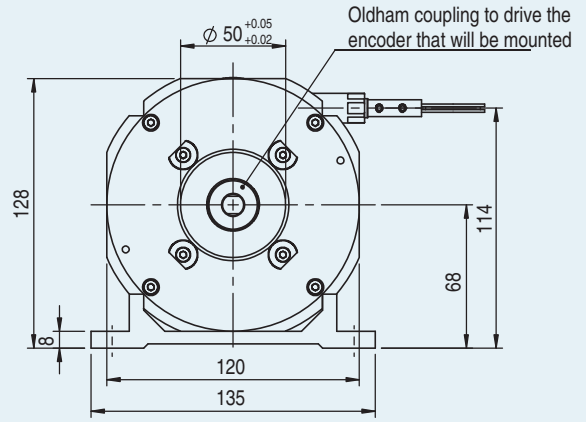
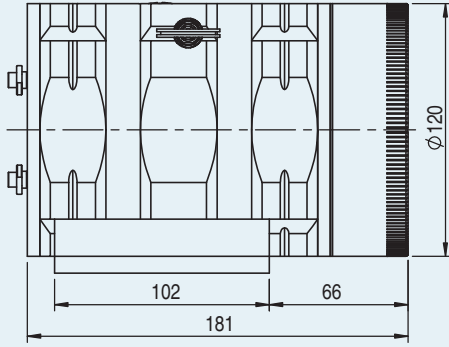
**f Connection Type**  
0=Cable (2 meter), 7=12 Pin

**g Output Signals**  
3=A+B+Z  
6=A+B+Z+Complementary  
J=Binary Code - SSI  
Y=Gray Code - SSI

**h Output Circuit Type**  
1=Push-Pull 5 Vdc  
3=Push-Pull 4,75 to 30 Vdc  
5=Push-Pull 8 to 30 Vdc  
F=SSI 5 Vdc  
G=SSI 10 to 30 Vdc

### Notes:

To determine encoder resolution use the following formula:  
Drum Circumference / Resolution (mm) = Encoder PPR



**CONNECTIONS FOR INCREMENTAL ENCODERS**

Function	Cable Colour Code	12 Pin Connector
0 Volt	white	1
+ Volt	brown	2
A	green	3
B	yellow	4
Z	grey	5
$\bar{A}$	pink	6
$\bar{B}$	blue	7
$\bar{Z}$	red	8

**CONNECTIONS FOR SSI ABSOLUTE ENCODERS**

Function	Cable Color Code	12 Pin Connector
GND	WHITE	1
+ Vcc	BROWN	2
SSI Clock +	GREEN	3
SSI Clock -	YELLOW	4
SSI Data +	GREY	5
SSI Data -	PINK	6
Reset/Preset	BLUE	7
Direction Setting	RED	8