

DWS1820

DRAW WIRE ENCODER
SYSTEM

Heavy Duty Construction
Easy to Mount
Range of Encoder Mounting Options
Measure up to 20 meter length
Incremental or Absolute Measurements
High Flex Stainless Steel Wire



MECHANICAL SPECIFICATIONS

Body	Aluminum
Cable	Stainless Steel
Drum Circumference	500 mm/turn
Measurement Length	0 mm to 20,000 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	15 kg

ORDERING CODE

DWS 1820 - -

a b c d e f g h Encoder Resolution

a Group Function

DWS=Draw Wire System

b Basic Series Number

1820

c Measurement Length

025=2500 mm, 050=5000 mm
060=6000 mm, 200=20000 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

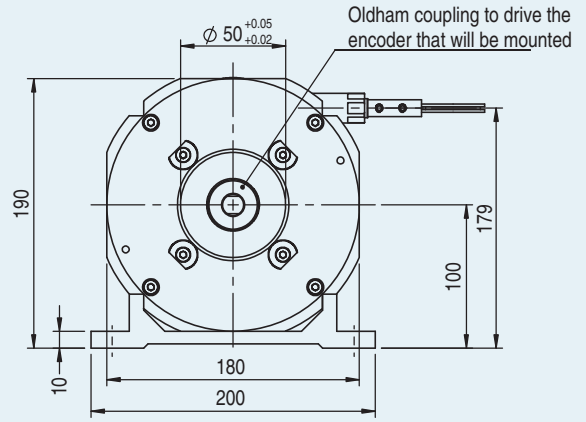
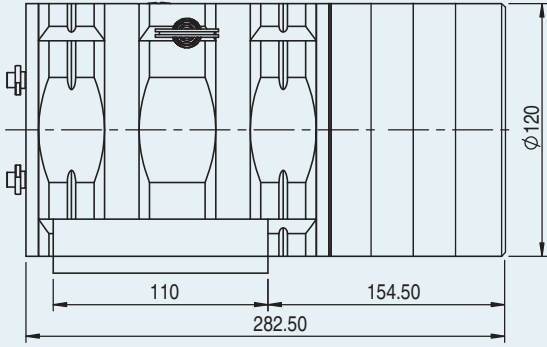
3=A+B+Z
6=A+B+Z+Complementary
J=Binary Code - SSI
Y=Gray Code - SSI

h Output Circuit Type

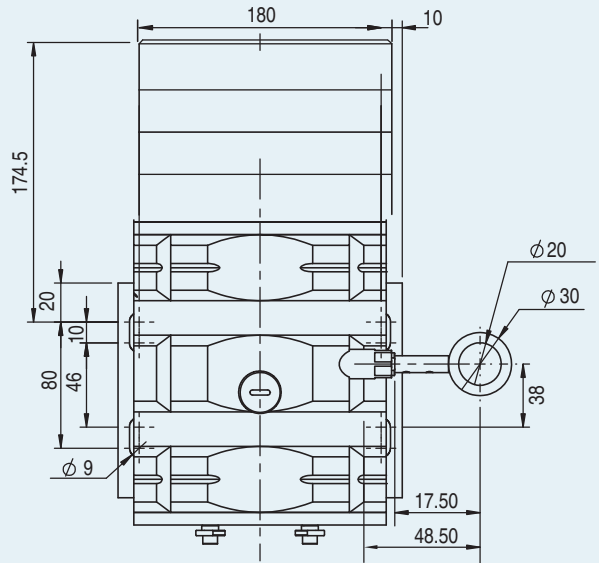
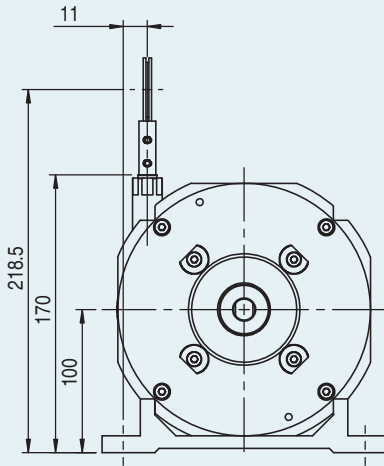
1=Push-Pull 5 Vdc
3=Push-Pull 4,75 to 30 Vdc
5=Push-Pull 8 to 30 Vdc
F=SSI 5 Vdc
G=SSI 10 to 30 Vdc

Notes:

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



Oldham coupling to drive the encoder that will be mounted



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