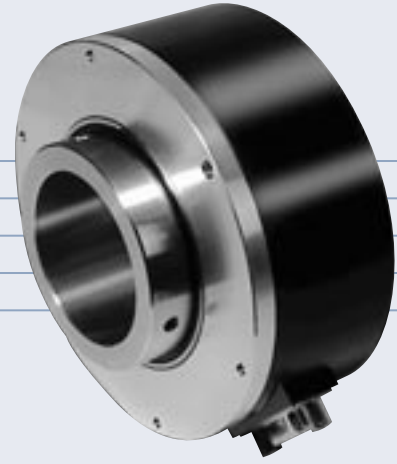


IH 103

INCREMENTAL HOLLOW SHAFT ENCODER

Very Heavy Duty Construction
 Shaft Mounted
 Range of shaft bores (30 – 40 mm)
 50000 PPR Maximum
 4.75 to 30 Volts, RS 422 Compatible
 300 kHz Maximum Frequency



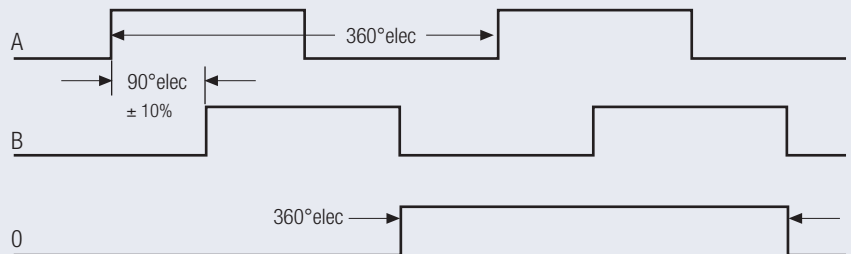
ELECTRICAL SPECIFICATIONS

Supply Voltage	4.75-30 V DC
Current Consumption	40 mA (max)
Output Circuit	Push-Pull, RS 422A
Impulse Frequency	300 kHz (max)
Logic Level (high)	Vcc - 0.7 Volt
Logic Level (low)	0.25 Volt (max)
Short Circuit Protection	100 %

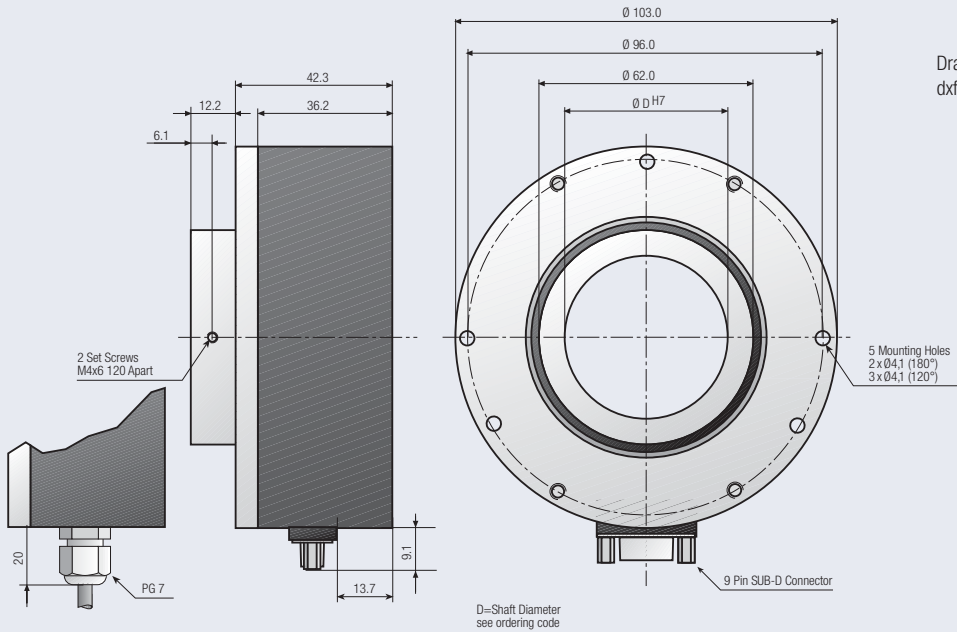
MECHANICAL SPECIFICATIONS

Cover	Aluminium
Body	Aluminium
Shaft	Stainless Steel
Speed	6000 RPM (max)
Torque	> 0.2 Nm
Loading	Axial 60 N, Radial 80 N
Protection	IP 65
Temperature	-20°...+70° C (-4°...+158° F) +100° C (+212° F) Optional
Weight	1.584 lb (720 g)

OUTPUT SIGNALS



A Leads B in the CW Direction (facing shaft)
 Complimentary channel also available



Drawing available as:
dxf, iges, step, sld file

ORDERING CODE

IH 103 - -

a b c d e f g h Pulses Per Revolution

- a Group Function**
IH=Incremental Hollow Shaft
- b Basic Series Number**
103
- c Shaft Size D**
26=26 mm 44=44mm
AQ=1.5" AR=1.625"
- d Mechanical Options**
0=None

- e Connector Type**
0=2 mtr. (6ft.) Cable
6=9 Pin Sub D 7=12 Pin
- f Connector Location**
R=Radial
- g Output Signals**
3=A+B+0
6=A+B+0+Compliments
- h Output Circuit Type**
3=Push Pull 4.75 to 30 VDC

Note: Special functions and designs will be designated by a 4 digit code at the end of the part number. Consult factory for further details

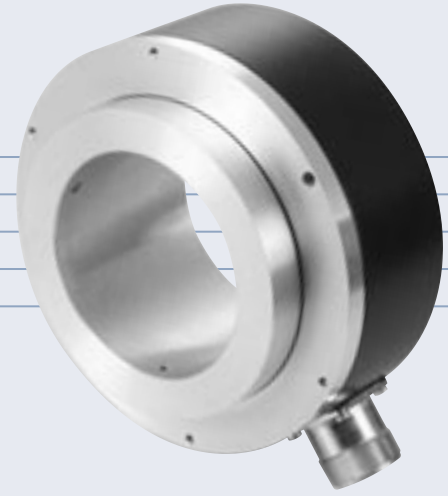
CONNECTIONS

Function	Cable Colour Code	9 Pin Connector	12 Pin Connector
0 Volt	white	1	1
+ Volt	brown	2	2
A	green	3	3
B	yellow	4	4
0	grey	5	5
\bar{A}	pink	6	6
\bar{B}	blue	7	7
$\bar{0}$	red	8	8

IH 120

INCREMENTAL HOLLOW SHAFT ENCODER

- Very Heavy Duty Construction
- Shaft Mounted
- Range of shaft bores (40 – 65 mm)
- 50000 PPR Maximum
- 4.75 to 30 Volts, RS 422 Compatible
- 300 kHz Maximum Frequency



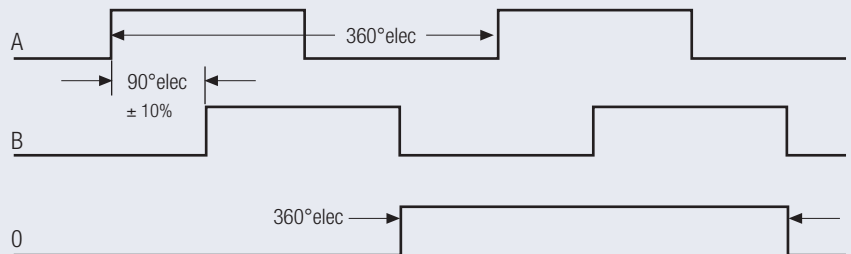
ELECTRICAL SPECIFICATIONS

Supply Voltage	4.75-30 V DC
Current Consumption	40 mA (max)
Output Circuit	Push-Pull, RS 422A
Impulse Frequency	300 kHz (max)
Logic Level (high)	Vcc - 0.7 Volt
Logic Level (low)	0.25 Volt (max)
Short Circuit Protection	100 %

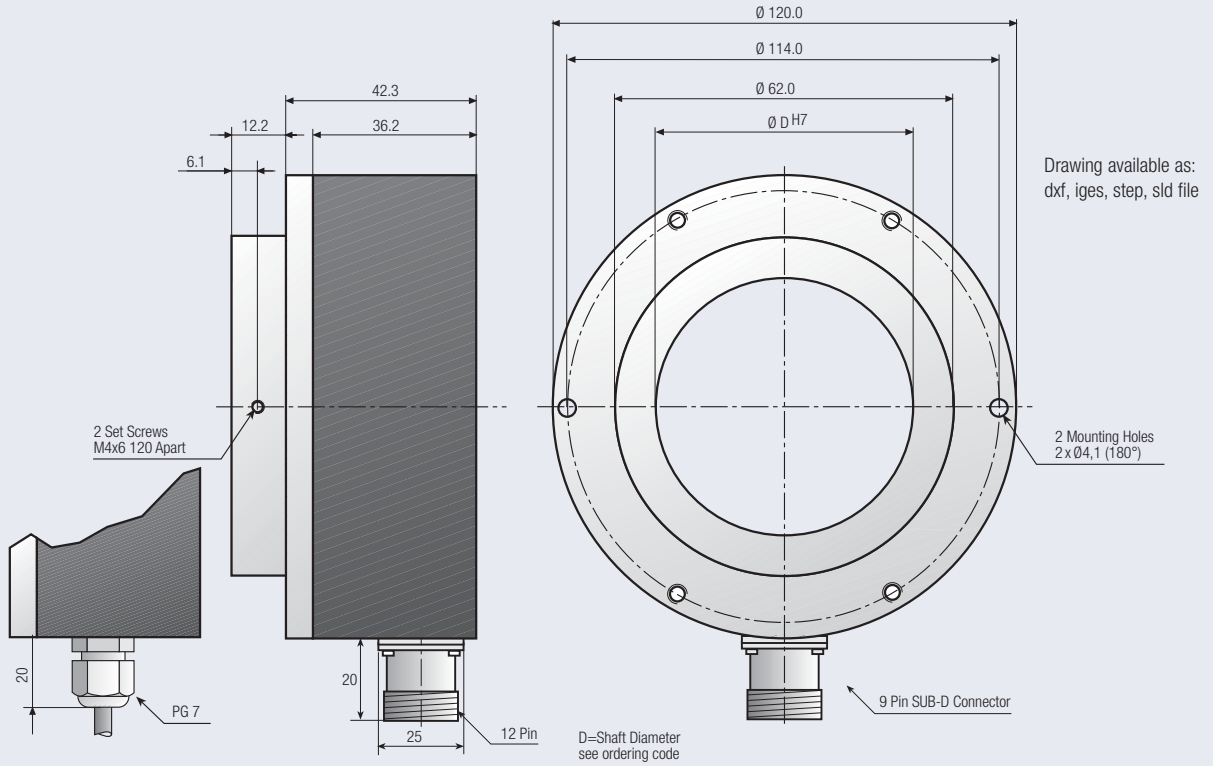
MECHANICAL SPECIFICATIONS

Cover	Aluminium
Body	Aluminium
Shaft	Stainless Steel
Speed	4000 RPM (max)
Torque	> 0.2 Nm
Loading	Axial 60 N, Radial 80 N
Protection	IP 54
Temperature	-20°...+70° C (-4°...+158° F) +100° C (+212° F) Optional
Weight	1.584 lb (720 g)

OUTPUT SIGNALS



A Leads B in the CW Direction (facing shaft)
Complimentary channel also available



Drawing available as:
dxf, iges, step, sld file

ORDERING CODE

IH 120 - -

a b c d e f g h Pulses Per Revolution

- a Group Function**
IH=Incremental Hollow Shaft
- b Basic Series Number**
120
- c Shaft Size D**
65=65 mm (max)
AY=2.5" (max)
- d Mechanical Options**
0=None

- e Connector Type**
0=2 mtr. (6ft.) Cable
6=9 Pin Sub D
7=12 Pin
- f Connector Location**
R=Radial
- g Output Signals**
3=A+B+0
6=A+B+0+Compliments
- h Output Circuit Type**
3=Push Pull 4.75 to 30 VDC

Note: Special functions and designs will be designated by a 4 digit code at the end of the part number. Consult factory for further details

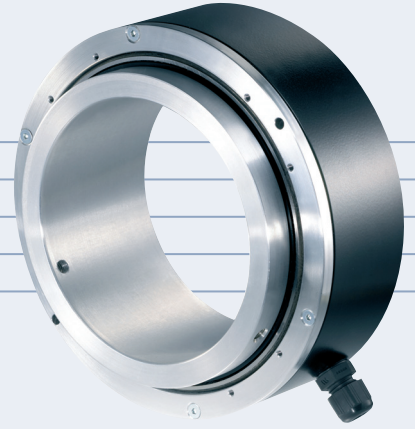
CONNECTIONS

Function	Cable Colour Code	9 Pin Connector	12 Pin Connector
0 Volt	white	1	1
+ Volt	brown	2	2
A	green	3	3
B	yellow	4	4
0	grey	5	5
\bar{A}	pink	6	6
\bar{B}	blue	7	7
$\bar{0}$	red	8	8

IH 150

INCREMENTAL HOLLOW SHAFT ENCODER

Very Heavy Duty Construction
Shaft Mounted
Range of shaft bores (65 – 100 mm)
50000 PPR Maximum
4.75 to 30 Volts, RS 422 Compatible
300 kHz Maximum Frequency



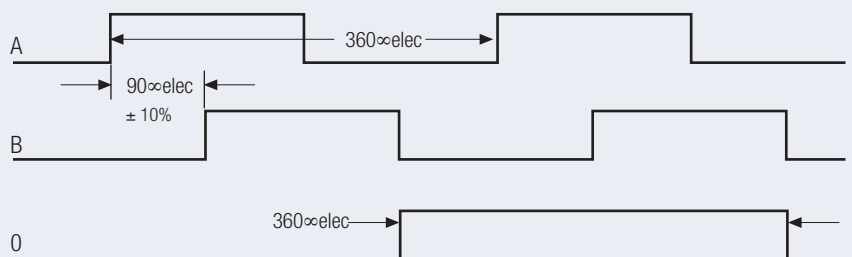
ELECTRICAL SPECIFICATIONS

Supply Voltage	4.75-30 V DC
Current Consumption	40 mA (max)
Output Circuit	Push-Pull, RS 422A
Impulse Frequency	300 kHz (max)
Logic Level (high)	Vcc - 0.7 Volt
Logic Level (low)	0.25 Volt (max)
Short Circuit Protection	100 %

MECHANICAL SPECIFICATIONS

Cover	Aluminium
Body	Aluminium
Shaft	Stainless Steel
Speed	4000 RPM (max)
Torque	> 0.2 Nm
Loading	Axial 60 N, Radial 80 N
Protection	IP 54
Temperature	-20°...+70° C (-4°...+158° F) +100° C (+212° F) Optional
Weight	2.160 lb (980 g)

OUTPUT SIGNALS



A Leads B in the CW Direction (facing shaft)
Complimentary channel also available

IH 490

INCREMENTAL HOLLOW SHAFT ENCODER

Compact Construction
 Shaft Mounted
 3600 PPR Maximum
 4.75 to 30 Volts, RS 422 Compatible
 100 kHz Maximum Frequency



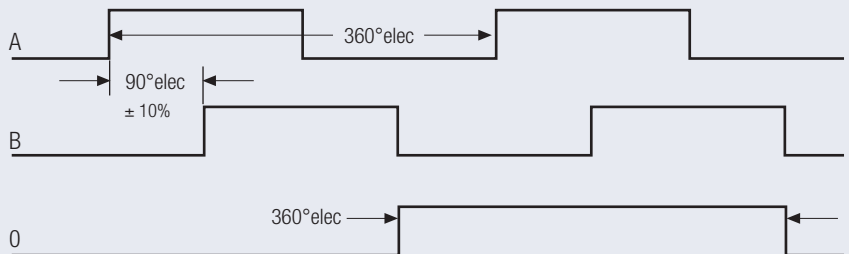
ELECTRICAL SPECIFICATIONS

Supply Voltage	4.75-30 V DC
Current Consumption	40 mA (max)
Output Circuit	Push-Pull, RS 422A
Impulse Frequency	100 kHz (max)
Logic Level (high)	Vcc - 0.7 Volt
Logic Level (low)	0.25 Volt (max)
Short Circuit Protection	100 %

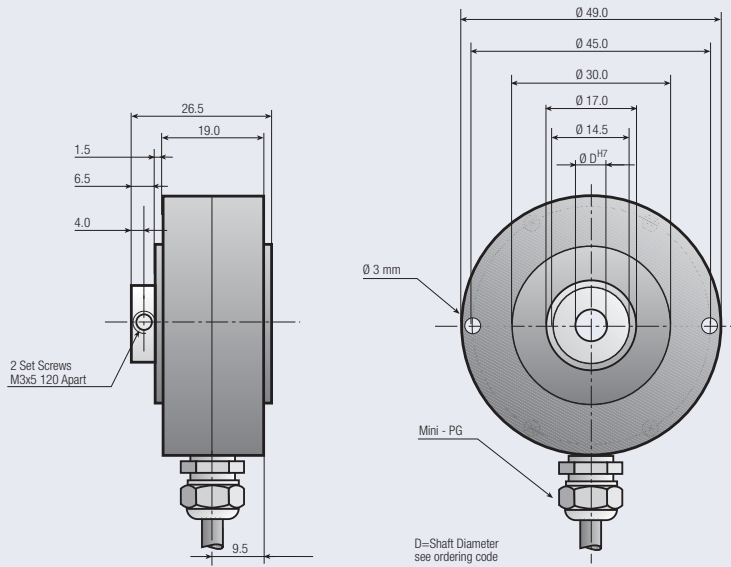
MECHANICAL SPECIFICATIONS

Cover	Aluminium
Body	Aluminium
Shaft	Stainless Steel
Speed	6000 RPM (max)
Torque	> 0.04 Nm
Loading	Axial 20 N, Radial 15 N
Protection	IP 65
Temperature	-20°... +70° C (-4°... +158° F)
Weight	0.29 lb (130 g)

OUTPUT SIGNALS



A Leads B in the CW Direction (facing shaft)
 Complimentary channel also available



Drawing available as:
dxf, iges, step, sld file

ORDERING CODE

IH 490 - -

a b c d e f g h Pulses Per Revolution

- a **Group Function**
IH=Incremental Hollow Shaft
- b **Basic Series Number**
490
- c **Shaft Size D**
06=6 mm
AA=1/4"
- d **Mechanical Options**
0=None

- e **Connector Type**
0=2 mtr. (6ft.) Cable
- f **Connector Location**
R=Radial
- g **Output Signals**
3=A+B+0
6=A+B+0+Compliments
- h **Output Circuit Type**
3=Push Pull 4.75 to 30 VDC

Note: Special functions and designs will be designated by a 4 digit code at the end of the part number. Consult factory for further details

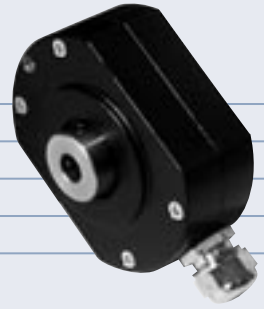
CONNECTIONS

Function	Cable Colour Code
0 Volt	white
+ Volt	brown
A	green
B	yellow
0	grey
\bar{A}	pink
\bar{B}	blue
$\bar{0}$	red

IH 510

INCREMENTAL HOLLOW SHAFT ENCODER

Compact Construction
 Shaft Mounted
 1250 PPR Maximum
 4.75 to 30 Volts, RS 422 Compatible
 200 kHz Maximum Frequency



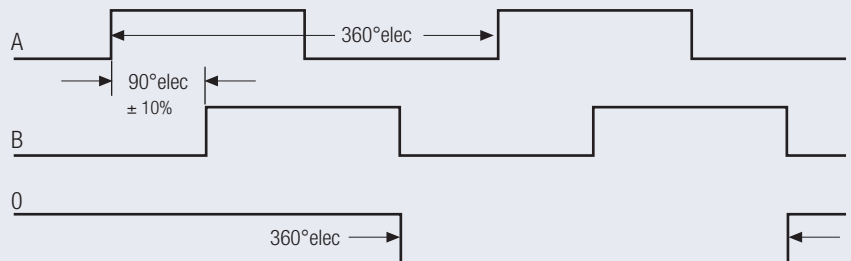
ELECTRICAL SPECIFICATIONS

Supply Voltage	4.75-30 V DC
Current Consumption	40 mA (max)
Output Circuit	Push-Pull, RS 422A
Impulse Frequency	200 kHz (max)
Logic Level (high)	Vcc - 0.7 Volt
Logic Level (low)	0.25 Volt (max)
Short Circuit Protection	100 %

MECHANICAL SPECIFICATIONS

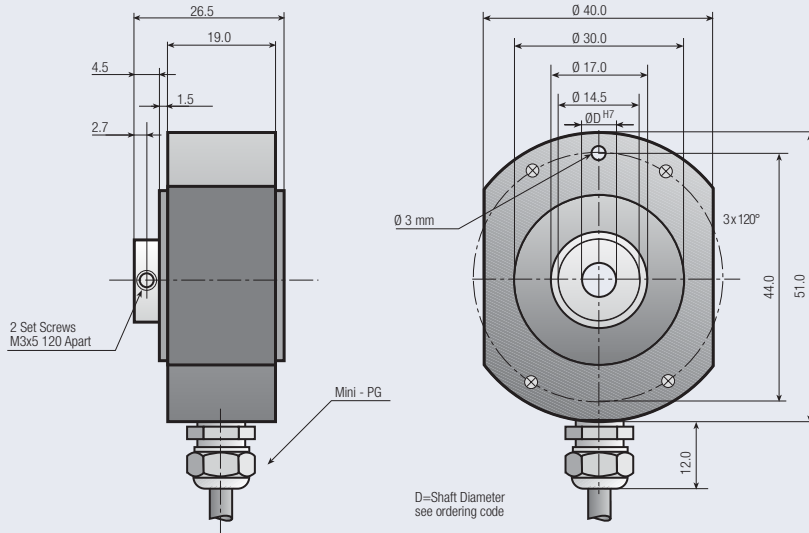
Cover	Aluminium
Body	Aluminium
Shaft	Stainless Steel
Speed	6000 RPM (max)
Torque	> 0.04 Nm
Loading	Axial 20 N, Radial 15 N
Protection	IP 65
Temperature	-20°...+70° C (-4°...+158° F)
Weight	0.29 lb (130 g)

OUTPUT SIGNALS



A Leads B in the CW Direction (facing shaft)
 Complimentary channel also available

Drawing available as:
dxf, iges, step, sld file



ORDERING CODE

IH **510** - -

a b c d e f g h Pulses Per Revolution

- a **Group Function**
IH=Incremental Hollow Shaft
- b **Basic Series Number**
510
- c **Shaft Size D**
06=6 mm
AA=1/4"
- d **Mechanical Options**
0=None

- e **Connector Type**
0=2 mtr. (6ft.) Cable
- f **Connector Location**
R=Radial
- g **Output Signals**
3=A+B+0
6=A+B+0+Compliments
- h **Output Circuit Type**
3=Push Pull 4.75 to 30 VDC

Note: Special functions and designs will be designated by a 4 digit code at the end of the part number. Consult factory for further details

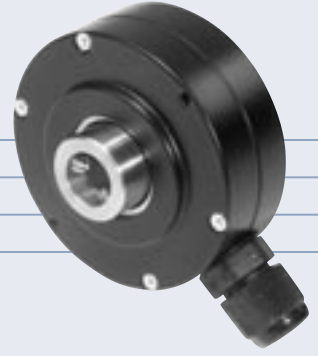
CONNECTIONS

Function	Cable Colour Code
0 Volt	white
+ Volt	brown
A	green
B	yellow
0	grey
\bar{A}	pink
\bar{B}	blue
$\bar{0}$	red

IH 581

INCREMENTAL HOLLOW SHAFT ENCODER

Industry Standard Size 25
 Shaft Mounted
 10000 PPR Maximum
 4.75 to 30 Volts, RS 422 Compatible
 200 kHz Maximum Frequency



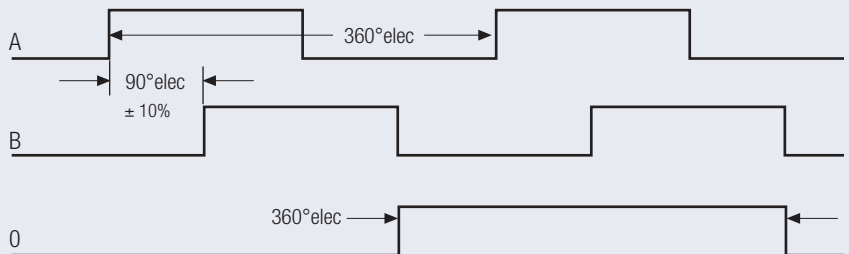
ELECTRICAL SPECIFICATIONS

Supply Voltage	4.75-30 V DC
Current Consumption	40 mA (max)
Output Circuit	Push-Pull, RS 422A
Impulse Frequency	200 kHz (max)
Logic Level (high)	Vcc - 0.7 Volt
Logic Level (low)	0.25 Volt (max)
Short Circuit Protection	100 %

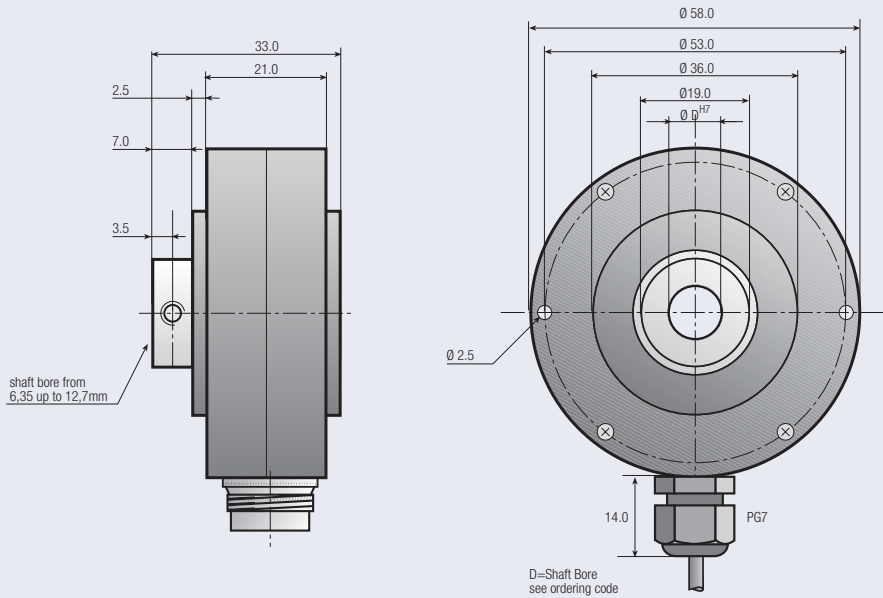
MECHANICAL SPECIFICATIONS

Cover	Aluminium
Body	Aluminium
Shaft	Stainless Steel
Speed	6000 RPM (max)
Torque	> 0.04 Nm
Loading	Axial 20 N, Radial 15 N
Protection	IP 65
Temperature	-20°...+70° C (-4°...+158° F) +100° C (+212° F) Optional
Weight	0.55 lb (250 g)

OUTPUT SIGNALS



A Leads B in the CW Direction (facing shaft)
 Complimentary channel also available



Drawing available as:
dxf, iges, step, sld file

ORDERING CODE

IH 581 - -

a b c d e f g h Pulses Per Revolution

- a Group Function**
IH=Incremental Hollow Shaft
- b Basic Series Number**
581
- c Shaft Size D**
06=6 mm 10=10 mm 12=12mm
AB=3/8" AC=1/2"
- d Mechanical Options**
0=None

- e Connector Type**
0=2 mtr. (6ft.) Cable
J=8 Pin
- f Connector Location**
R=Radial
- g Output Signals**
3=A+B+0
6=A+B+0+Compliments
- h Output Circuit Type**
3=Push Pull 4.75 to 30 VDC

Note: Special functions and designs will be designated by a 4 digit code at the end of the part number. Consult factory for further details

CONNECTIONS

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

IH 740

INCREMENTAL HOLLOW SHAFT ENCODER

Heavy Duty Construction
 Shaft Mounted
 Range of shaft bores (6 – 18 mm)
 25000 PPR Maximum
 4.75 to 30 Volts, RS 422 Compatible
 300 kHz Maximum Frequency



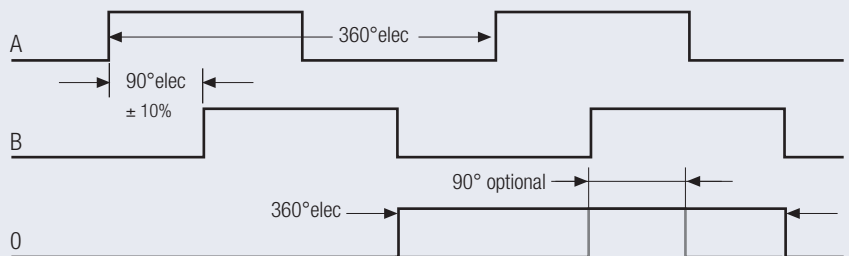
ELECTRICAL SPECIFICATIONS

Supply Voltage	4.75-30 V DC
Current Consumption	40 mA (max)
Output Circuit	Push-Pull, RS 422A
Impulse Frequency	300 kHz (max)
Logic Level (high)	Vcc - 0.7 Volt
Logic Level (low)	0.25 Volt (max)
Short Circuit Protection	100 %

MECHANICAL SPECIFICATIONS

Cover	Aluminium
Body	Aluminium
Shaft	Stainless Steel
Speed	6000 RPM (max)
Torque	> 0.04 Nm
Loading	Axial 40 N, Radial 30 N
Protection	IP 65
Temperature	-20°...+70° C (-4°...+158° F) +100° C (+212° F) Optional
Weight	0.84 lb (380 g)

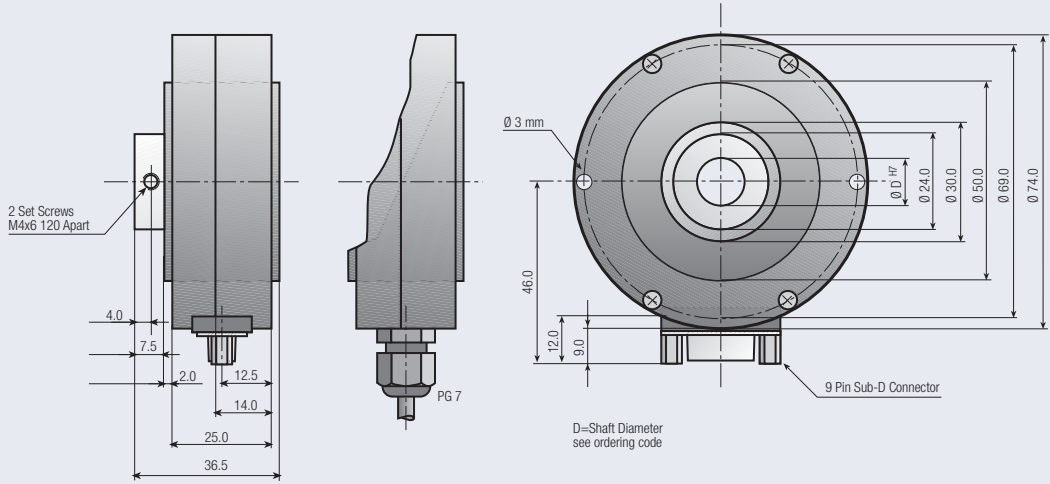
OUTPUT SIGNALS



A Leads B in the CW Direction (facing shaft)
 Complimentary channel also available

Optional Gated Marker Pulse
 Gated with A+B Shown

Drawing available as:
dxf, iges, step, sld file



ORDERING CODE

IH 740 - -

a b c d e f g h Pulses Per Revolution

- a Group Function**
IH=Incremental Hollow Shaft
- b Basic Series Number**
740
- c Shaft Size D**
06=6 mm 10=10 mm 12=12mm
14=14mm 16=16 mm 18=18 mm
AA=1/4" AB=3/8" AC=1/2" AE=5/8"
- d Mechanical Options**
0=None

- e Connector Type**
0=2 mtr. (6ft.) Cable
6=9 Pin Sub D 7=12 Pin
- f Connector Location**
R=Radial
- g Output Signals**
3=A+B+0
6=A+B+0+Compliments
- h Output Circuit Type**
3=Push Pull 4.75 to 30 VDC

Note: Special functions and designs will be designated by a 4 digit code at the end of the part number. Consult factory for further details

CONNECTIONS

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

IH 840

INCREMENTAL HOLLOW SHAFT ENCODER

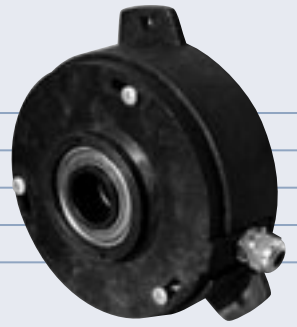
Very Heavy Duty Construction

Shaft Mounted

3600 PPR Maximum

4.75 to 30 Volts, RS 422 Compatible

300 kHz Maximum Frequency



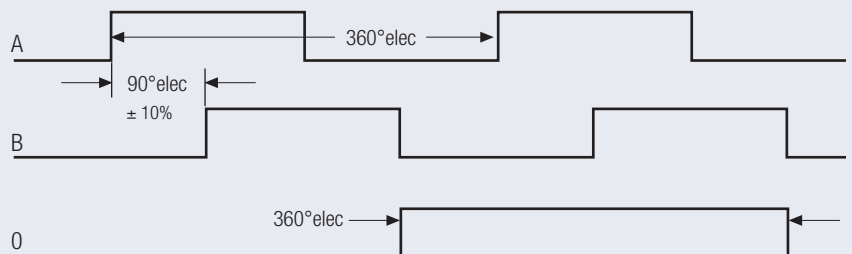
ELECTRICAL SPECIFICATIONS

Supply Voltage	4.75-30 V DC
Current Consumption	40 mA (max)
Output Circuit	Push-Pull, RS 422A
Impulse Frequency	300 kHz (max)
Logic Level (high)	Vcc - 0.7 Volt
Logic Level (low)	0.25 Volt (max)
Short Circuit Protection	100 %

MECHANICAL SPECIFICATIONS

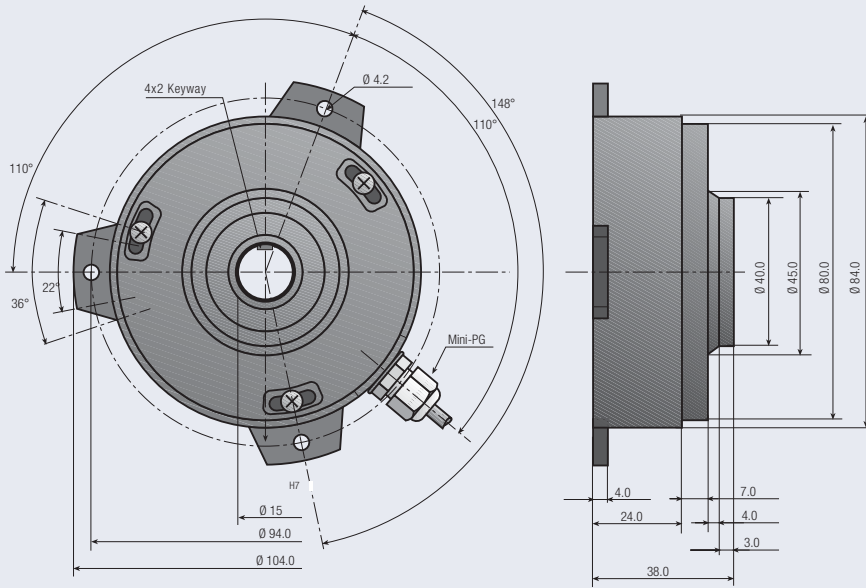
Cover	Plastic (Noryl)
Body	Plastic (Noryl)
Shaft	Plastic (Noryl)
Speed	6000 RPM (max)
Torque	> 0.04 Nm
Loading	Axial 20 N, Radial 30 N
Protection	IP 65
Temperature	-20°...+70° C (-4°...+158° F) +100° C (+212° F) Optional
Weight	0.27 lb (130 g)

OUTPUT SIGNALS



A Leads B in the CW Direction (facing shaft)
Complimentary channel also available

Drawing available as:
dxf, iges, step, sld file



ORDERING CODE

IH 840 - -

a b c d e f g h Pulses Per Revolution

- a Group Function**
IH=Incremental Hollow Shaft
- b Basic Series Number**
840
- c Shaft Size D**
15=15 mm
- d Mechanical Options**
0=None

- e Connector Type**
0=2 mtr. (6ft.) Cable
- f Connector Location**
R=Radial
- g Output Signals**
3=A+B+0
6=A+B+0+Compliments
- h Output Circuit Type**
3=Push Pull 4.75 to 30 VDC

Note: Special functions and designs will be designated by a 4 digit code at the end of the part number. Consult factory for further details

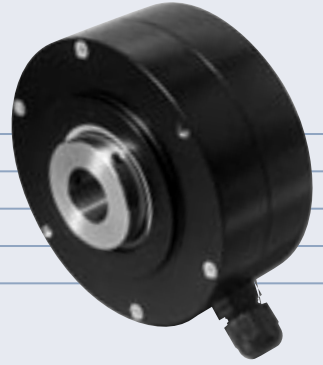
CONNECTIONS

Function	Cable Colour Code
0 Volt	white
+ Volt	brown
A	green
B	yellow
0	grey
\bar{A}	pink
\bar{B}	blue
$\bar{0}$	red

IH 950

INCREMENTAL HOLLOW SHAFT ENCODER

Very Heavy Duty Construction
 Shaft Mounted
 Range of shaft bores (14 – 30 mm)
 25000 PPR Maximum
 4.75 to 30 Volts, RS 422 Compatible
 300 kHz Maximum Frequency



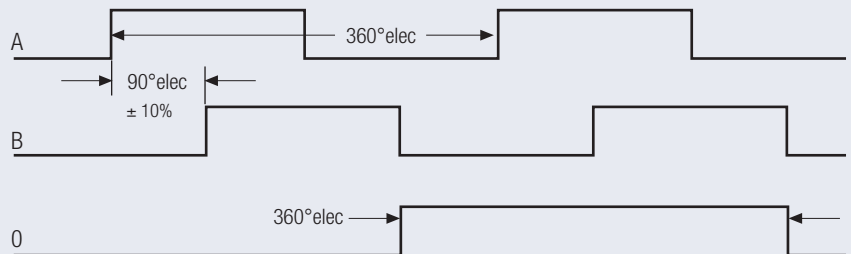
ELECTRICAL SPECIFICATIONS

Supply Voltage	4.75-30 V DC
Current Consumption	40 mA (max)
Output Circuit	Push-Pull, RS 422A
Impulse Frequency	300 kHz (max)
Logic Level (high)	Vcc - 0.7 Volt
Logic Level (low)	0.25 Volt (max)
Short Circuit Protection	100 %

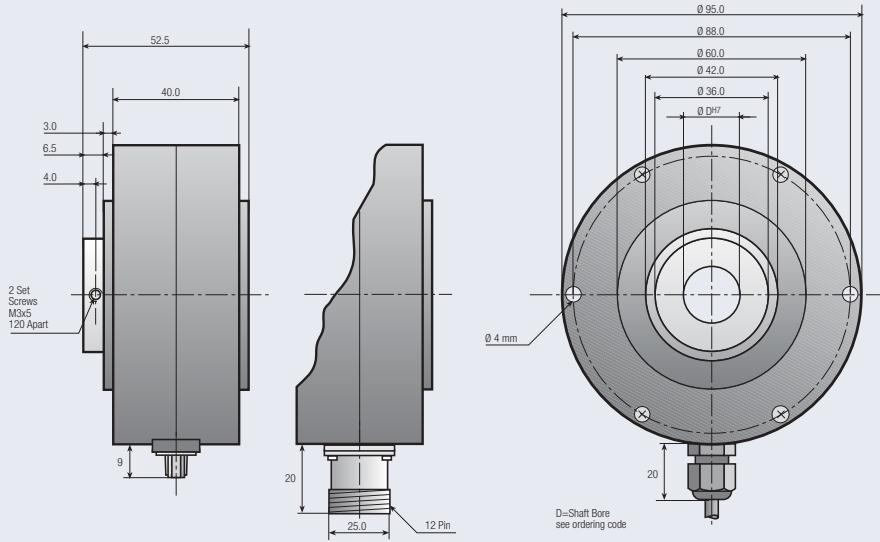
MECHANICAL SPECIFICATIONS

Cover	Aluminium
Body	Aluminium
Shaft	Stainless Steel
Speed	6000 RPM (max)
Torque	> 0.04 Nm
Loading	Axial 50 N, Radial 30 N
Protection	IP 65
Temperature	-20°...+70° C (-4°...+158° F) +100° C (+212° F) Optional
Weight	1.254 lb (570 g)

OUTPUT SIGNALS



A Leads B in the CW Direction (facing shaft)
 Complimentary channel also available



Drawing available as:
dxf, iges, step, sld file

ORDERING CODE

IH 950 - -

a b c d e f g h Pulses Per Revolution

- a Group Function**
IH=Incremental Hollow Shaft
- b Basic Series Number**
950
- c Shaft Size D**
12=12 mm 26=26mm
AE=5/8" AL = 1"
- d Mechanical Options**
0=None

- e Connector Type**
0=2 mtr. (6ft.) Cable
6=9 Pin Sub D
7=12 Pin
- f Connector Location**
R=Radial
- g Output Signals**
3=A+B+0
6=A+B+0+Compliments
- h Output Circuit Type**
3=Push Pull 4.75 to 30 VDC

Note: Special functions and designs will be designated by a 4 digit code at the end of the part number. Consult factory for further details

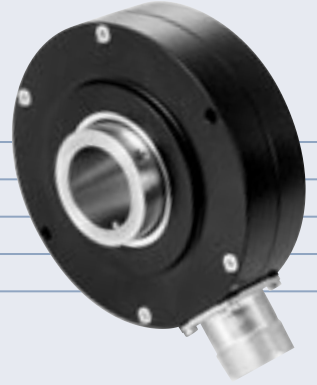
CONNECTIONS

Function	Cable Colour Code	9 Pin Connector	12 Pin Connector
0 Volt	white	1	1
+ Volt	brown	2	2
A	green	3	3
B	yellow	4	4
0	grey	5	5
\bar{A}	pink	6	6
\bar{B}	blue	7	7
$\bar{0}$	red	8	8

IH 951

INCREMENTAL HOLLOW SHAFT ENCODER

Very Heavy Duty Construction
 Shaft Mounted
 Range of shaft bores (14 – 30 mm)
 25000 PPR Maximum
 4.75 to 30 Volts, RS 422 Compatible
 300 kHz Maximum Frequency



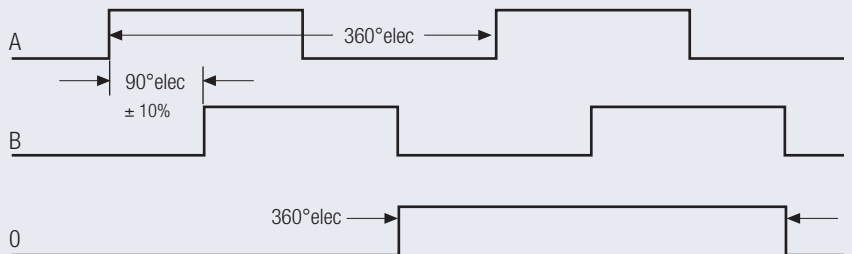
ELECTRICAL SPECIFICATIONS

Supply Voltage	4.75-30 V DC
Current Consumption	40 mA (max)
Output Circuit	Push-Pull, RS 422A
Impulse Frequency	300 kHz (max)
Logic Level (high)	Vcc - 0.7 Volt
Logic Level (low)	0.25 Volt (max)
Short Circuit Protection	100 %

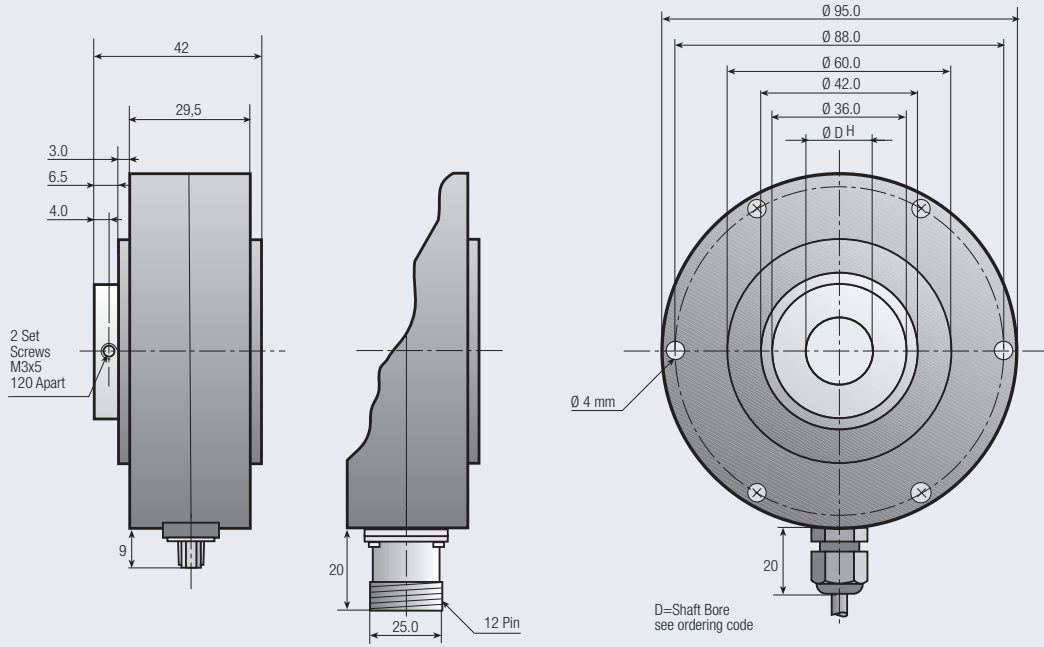
MECHANICAL SPECIFICATIONS

Cover	Aluminium
Body	Aluminium
Shaft	Stainless Steel
Speed	6000 RPM (max)
Torque	> 0.04 Nm
Loading	Axial 50 N, Radial 30 N
Protection	IP 65
Temperature	-20°...+70° C (-4°...+158° F) +100° C (+212° F) Optional
Weight	1.034 lb (470 g)

OUTPUT SIGNALS



A Leads B in the CW Direction (facing shaft)
 Complimentary channel also available



Drawing available as:
dxf, iges, step, sld file

ORDERING CODE

IH 951 - -

a b c d e f g h Pulses Per Revolution

- a **Group Function**
IH=Incremental Hollow Shaft
- b **Basic Series Number**
951
- c **Shaft Size D**
12=12 mm 26=26mm
AE=5/8" AL=1"
- d **Mechanical Options**
0=None

- e **Connector Type**
0=2 mtr. (6ft.) Cable
6=9 Pin Sub D
7=12 Pin
- f **Connector Location**
R=Radial
- g **Output Signals**
3=A+B+0
6=A+B+0+Compliments
- h **Output Circuit Type**
3=Push Pull 4.75 to 30 VDC

Note: Special functions and designs will be designated by a 4 digit code at the end of the part number. Consult factory for further details

CONNECTIONS

Function	Cable Colour Code	9 Pin Connector	12 Pin Connector
0 Volt	white	1	1
+ Volt	brown	2	2
A	green	3	3
B	yellow	4	4
0	grey	5	5
\bar{A}	pink	6	6
\bar{B}	blue	7	7
$\bar{0}$	red	8	8