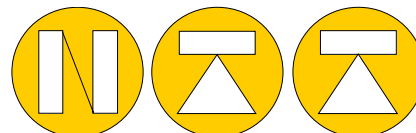


## HLS-L ENCODER SIGNAL OUTPUT

0-6m to 0-12m Measuring length



**NORDIC TRANSDUCER**

### HLS-L Wire-length transducer.

This type of length transducer are getting more and more popular for usage at industrial measuring jobs at length from 0-6m and up to 0-12m. It is easy to mount, do not require any kind of special guide or lining up, the wire must just go straight out of the guide, It is very interesting prices compared with other systems, robust and reliable.

HLS-L is equipped with a Nylon coated stainless steel wire, which inside the housing is laid side by side on a spool by means of 3 smaller supporting rollers, this give a minimum of ware on the wire + present it straight in front of the outlet all time.

### ELECTRICAL SPECIFICATION

Detection System:	Incremental
Full stroke	6000, 7000, 8000, 9000, 10000, 11000, 12000 mm
Standard Resolution (mm/pulse)	1, or 0.5 mm
Accuracy:   :	+/-0.05% FS +/-1 count
Output Wave:	Square Wave
Wave Form Rise/ Fall:	2µ s or less
Current Consumption	< 60 mA
Supply voltage:	VDC 8-26 / DC 5V fixed
Output Capacity:	Sync. Current: 20mA, Residual Voltage: 0.5V or less
Max. Response:	10 kHz - 50kHz
Phase Different:	A, B phase different 90° +/-45° (T/4+/-T/8), Z phase T+/-T/

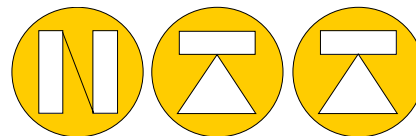
### MECHANICAL SPECIFICATION

Wire:	S304 stainless Steel, with Nylon coating Stroke diameter 1.0mm; Breaking load 60kg
Max. Travel speed:	Max. 1000 mm/sec ( come and go )
Vibration:	10g, (10+/- 1500Hz
Weight:	3500gram approx
Starting Torque on spring:	1500 - 2000 gram
Life time:	Typical 1 x 10 <sup>6</sup> cycles

### ENVIRONMENTAL SPEC.

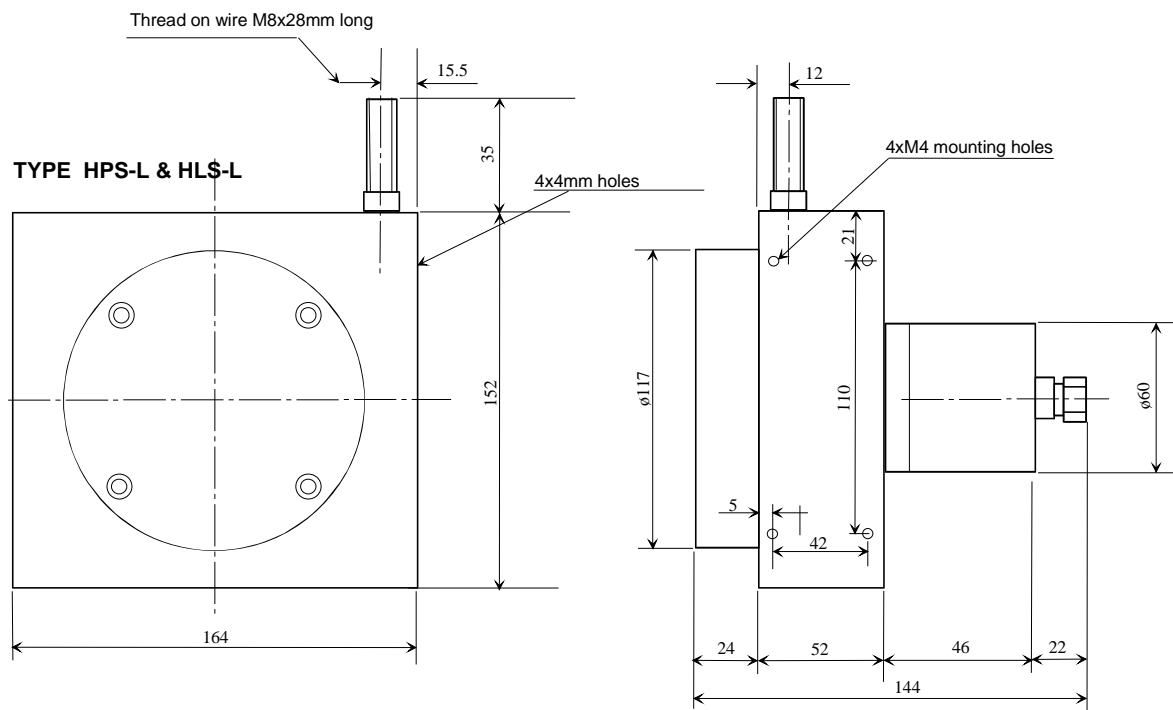
Operating Temp.	-10°C to +50°C
Humidity:	/ RH 35..90% non Condensation
Protection:	IP64: Dust & Dripping proof ( only for encoder housing )

# HLS-L ENCODER SIGNAL OUTPUT



**NORDIC TRANSDUCER**

Dimensions mm:



## ORDERING INFORMATION

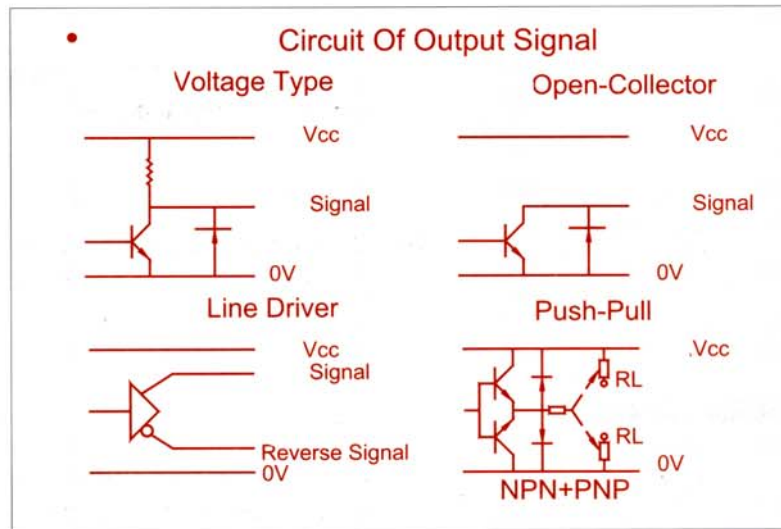
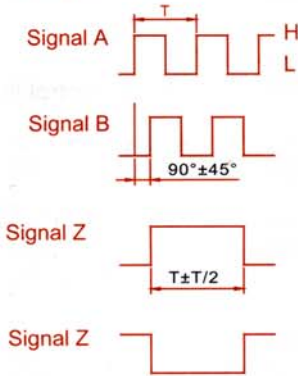
Measuring Range	Resolution	Output Phase	Electronic	Supply Voltage	Connection
<b>HLS-L 60:</b> 6m	<b>1:</b> 1mm	<b>Blank</b> = AB Phase	<b>Blank:</b> NPN Voltage	<b>Blank:</b> 8-26Vdc	<b>Blank:</b> Axial cable
<b>70:</b> 7m	<b>05:</b> 0.5mm	<b>Z</b> ABZ phase	<b>C:</b> NPN Open-Collector	<b>5V:</b> VDC fixed	<b>R7</b> Radial
<b>80:</b> 8m			<b>PP:</b> Push-Pull		<b>R10</b> Radial*
<b>90:</b> 9m			<b>L:</b> Line drive 5Vdc		
<b>100:</b> 10m			<b>HL:</b> Line drive 5-26Vdc		
<b>110:</b> 11m					
<b>120:</b> 12m					

\* R10 for Line driver



◀ INCREMENTAL ENCODER'S ELECTRICAL DATA ▶

Output Wave Form



Electrical Connections

Color wire function of cable

NORMAL CIRCUIT

LINE DRIVER CIRCUIT

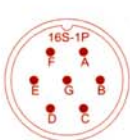
Color of wire	(pin)	Function	Color of wire	(pin)	Function
Red	1A	+V	Red	1A	+V
Black	2B	0V Common	Black	2B	0V Common
White	3C	A CH A	Blue	3C	A CH A
Green	4D	B CH B	Green	4D	B CH B
Yellow	5E	Z CH Z	Yellow	5E	Z CH Z
Shield		NC	Violet	6F	/A CH A (reverse)
			Orange	7G	/B CH B (reverse)
			Brown	8H	/Z CH Z (reverse)
			Shield	-	NC

Pin function of connector

TYPE:MS3102A16S-1P

(7pin connector)

\*for Voltage, Open Collector, Push Pull

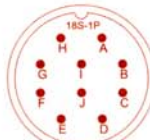


- PIN A +V
- PIN B 0V Common
- PIN C CH A
- PIN D CH B
- PIN E CH Z
- PIN F -
- PIN G -

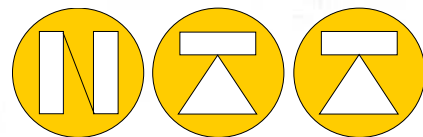
TYPE:MS3102A18S-1P

(10 pin connector)

\*for Line Driver



- PIN A +V
- PIN B 0V Common
- PIN C CH A
- PIN D CH B
- PIN E CH Z
- PIN F CH A reverse
- PIN G CH B reverse
- PIN H CH Z reverse
- PIN I -
- PIN J -



NORDIC TRANSDUCER