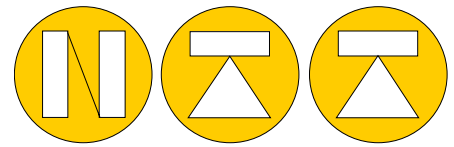


HLS-M ENCODER SIGNAL OUTPUT

0-500mm to 0-5m Measuring length



NORDIC TRANSDUCER



HLS-M Wire-length transducer.

This type of length transducer are getting more and more popular for usage at industrial measuring jobs at length from 500mm and up 5m. 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-M 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	500,1000, 2000, 3000, 4000 5000 mm
Standard Resolution (mm/pulse)	1, 0.5, 0.2, 0.1, *0.05 mm/pulse (*only for stroke 500, 1000, 2000)
Accuracy: :	Stroke 500 -1000mm +/-0.03% FS +/-1 count Stroke 2000 -5000mm +/-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/

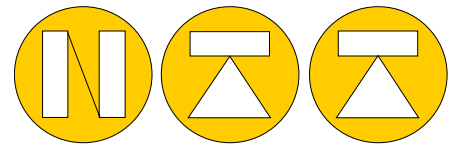
MECHANICAL SPECIFICATION

Wire:	S304 stainless Steel, with Nylon coating Stroke < 3m diamter 0.6mm; Breaking load 16kg Stroke > 3m diamter 0.7mm; Breaking load 23kg
Max. Travel speed:	Max. 1000 mm/sec (come and go)
Vibration:	10g (10+/- 1.500 Hz)
Weight:	900 gram approx
Starting Torque on spring:	Stroke < 2m = max. 600gram, stroke>2mm = max. 900 gram
Life time:	Typical 1 x 10 ⁶ cycles

ENVIRONMENTAL SPEC.

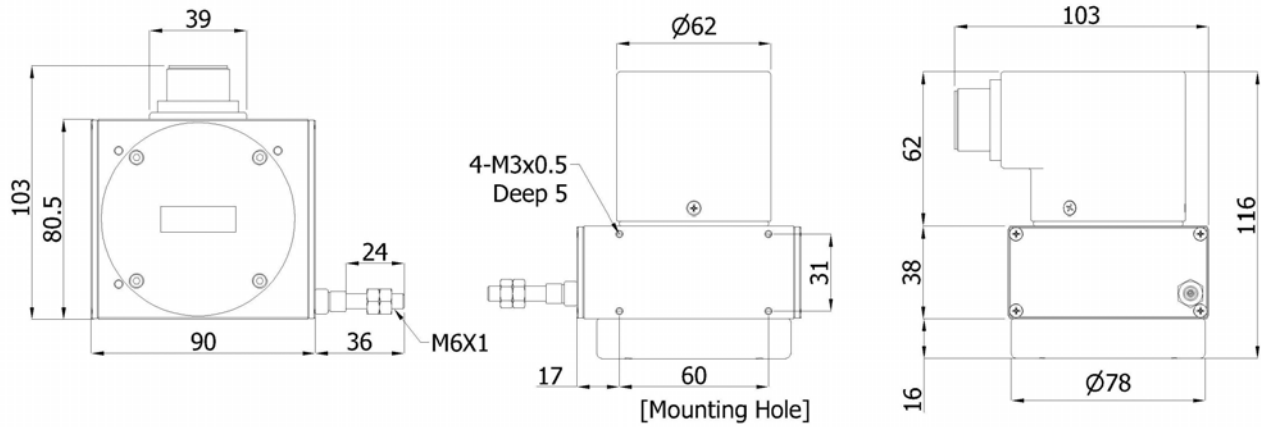
Operating Temp.	-10°C to +50°C
Humidity:	/ RH 35..90% non Condensation
Protection:	IP64: Dust & Dripping proof (only for encoder housing)

HLS-M ENCODER SIGNAL OUTPUT



NORDIC TRANSDUCER

Dimensions mm:

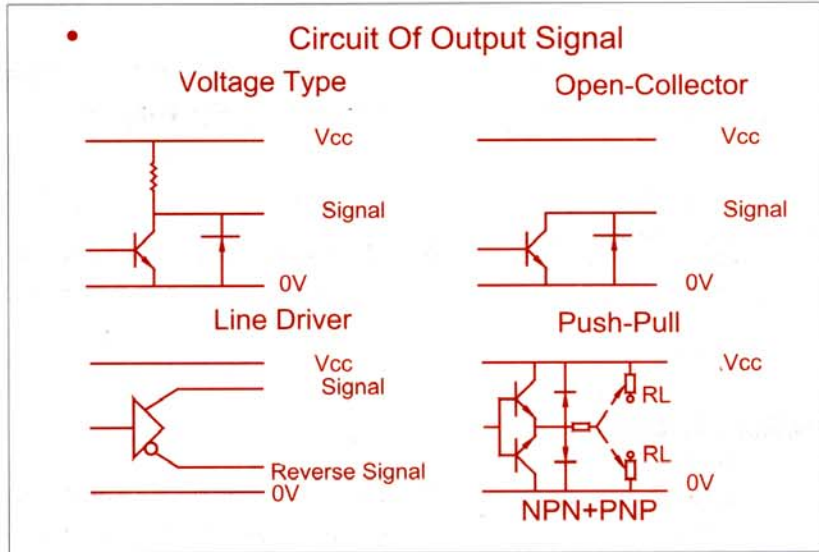
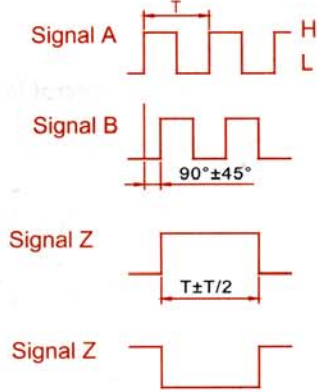


ORDERING INFORMATION

Measuring Range	Resolution	Output Phase	Electronic	Supply Voltage	Connection
HLS-M 05: 500mm	1: 1mm	Blank = AB Phase	Blank: NPN Voltage	Blank: 8-26Vdc	R7 Radial
10: 1000mm	05: 0.5mm	Z ABZ phase	C: NPN Open-Collector	5V: VDC fixed	R10 Radial*
20: 2000mm	02: 0.2mm		PP: Push-Pull		
30: 3000mm	01: 0.1mm		L: Line drive 5Vdc		
40: 4000mm	005: 0.05mm		HL: Line drive 5-26Vdc		
50: 5000mm	only for 500 -2000mm				* R10 for Line driver

◀ INCREMENTAL ENCODER'S ELECTRICAL DATA ▶

Output Wave Form



Electrical Connections

Color wire function of cable

NORMAL CIRCUIT

LINE DRIVER CIRCUIT

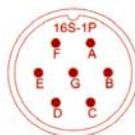
Color of wire	(pin)	Function	Color of wire	(pin)	Function
Red	1A	+V	Red	1A	+V
Black	2B	0V Common	Black	2B	0V Common
White	3C	A CH A	Blue	3C	A CH A
Green	4D	B CH B	Green	4D	B CH B
Yellow	5E	Z CH Z	Yellow	5E	Z CH Z
Shield		NC	Violet	6F	/A CH A (reverse)
			Orange	7G	/B CH B (reverse)
			Brown	8H	/Z CH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

Pin function of connector

TYPE:MS3102A16S-1P

(7pin connector)

*for Voltage, Open Collector, Push Pull

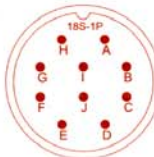


PIN A +V
 PIN B 0V Common
 PIN C CH A
 PIN D CH B
 PIN E CH Z
 PIN F -
 PIN G -

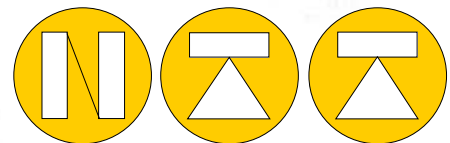
TYPE:MS3102A18S-1P

(10 pin connector)

*for Line Driver

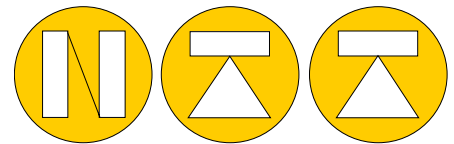


PIN A +V
 PIN B 0V Common
 PIN C CH A
 PIN D CH B
 PIN E CH Z
 PIN F CH A reverse
 PIN G CH B reverse
 PIN H CH Z reverse
 PIN I -
 PIN J -



NORDIC TRANSDUCER

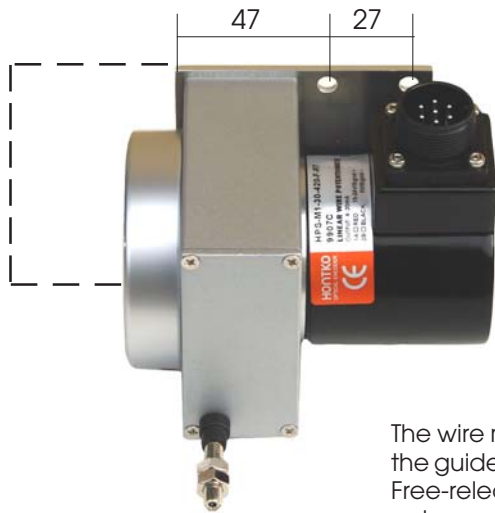
HLS-M 500mm to 5m Measuring length



NORDIC TRANSDUCER

OPTION MP

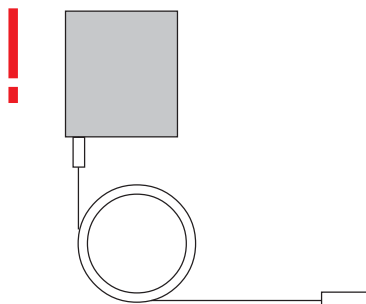
HLS-M can be delivered with an 3mm thick mounting plate made of aluminium. This can be mounted behind the wire outlet or under the wire outlet as shown here, both as right or left mounting, so there should be plenty of options how to mount these !



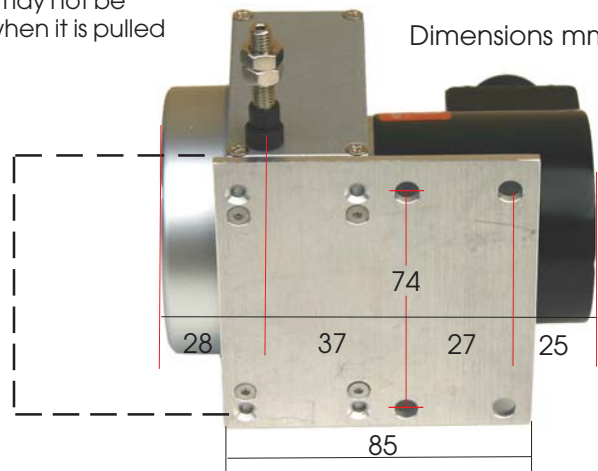
Mounting Plate behind the wire outlet, left or right side



The wire must go straight out of the guide, and may not be Free-released when it is pulled out



By means of a roller the unit can be used going around corners !



Dimensions mm:

Under the wire outlet left or right side.



HLS-M is supplied with a R7, or a R10 connector as shown here and with female part for the customers connection.