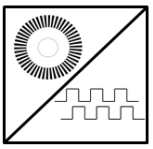
DRAW WIRE ENCODER

"Small size, High strength stainless steel wire"

AWE 110

GENERAL FEATURES

- Different stroke (measuring) lengths between 0…300 mm and 0…1200 mm
- Incremental output
- Stainless steel measuring wire
- Small structure
- IP53 protection class
- Compact design
- Easy installation
- 2 m/s maximum speed
- Shock/Vibration resistant
- Aluminum anodized body



AWE 110 wire encoders convert linear motion into incremental digital pulses. Different stroke lengths between 0…300 mm and 0…1200 mm are available. Optionally other stroke lengths, resolutions, cable lengths and socket connectors can be requested.

They make measurement by pulling and rewinding stainless steel wire. Usage is practical and usage area is quite wide. By connecting to a counter or position controller, they become a perfect system in high resolutions for position control in wood processing, marble machines, glass processing machines and other machines.

TECHNICAL SPECIFICATIONS

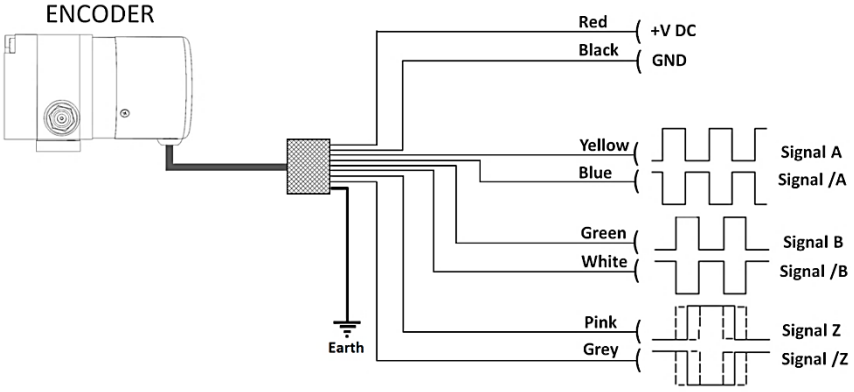
***Stroke (measuring) Length**	Different measuring lengths between 0…300 mm and 0…1200 mm	
***Resolution**	pulse/mm	mm/edge
	5 pulses/mm 10 pulses/mm (standard) 20 pulses/mm	0.05 mm 0.025 mm (standard) 0.0125 mm
***Connection Cable**	3m (standard), 5m, 10m	
***Supply Voltage**	5…30V DC ±20%	
***Output Signals**	A,B,Z (standard) A,B A,/A,B,/B A,/A,B,/B,Z,/Z	
Accuracy	±0.25% FS	

Maximum Speed	2 m/s
Required Force	5 N
Max Output Current	60 mA (per channel)
Measuring Type	Optic
Materials	Housing: Aluminum/steel /plastic
	Measuring Wire: Stainless steel
IP Protection Class	IP53
Operating Temperature	-25°C … +85°C
Relative Humudity	%95
Weight	≈550 gr

Note: The technical specifications indicated by (*) vary according to the selected model. The detailed code table is shown on page 3.

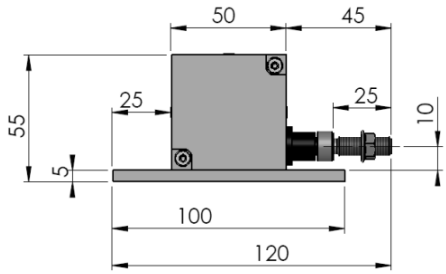
ELECTRICAL CONNECTION

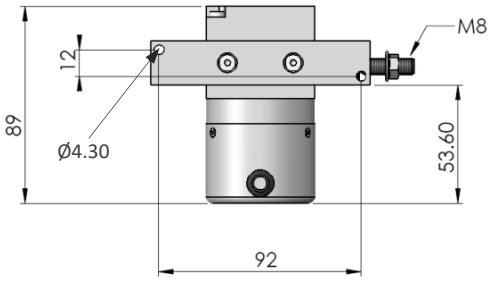
In the left tablet the cable colors of sensors output signals are given. If the control circuit is suitable in the Line Driver sensors of the not output signals (/A, /B, /Z) have to be added to the system. If it is not suitable /A, /B, /Z signal cables must be fixed as insulated separately. Don't forget that these edges have electricity too.

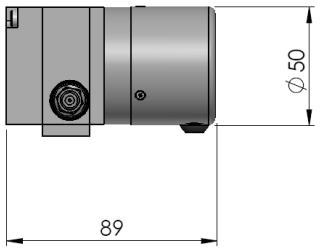


SIGNAL	CABLE COLOR	M12/8 pin SOCKET PIN NO	M12/5pin SOCKET PIN NO
A	Yellow	1	1
B	Green	2	2
+V	Red	3	3
0V	Black	4	4
Z	Pink	5	5
/A	Blue	6	-
/B	White	7	-
/Z	Grey	8	-
EARTH	Silver	-	-

DIMENSIONS

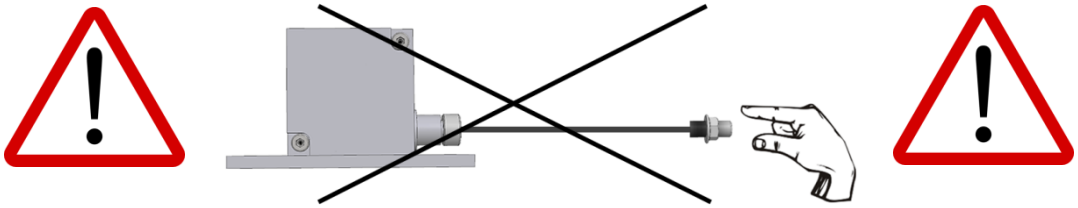




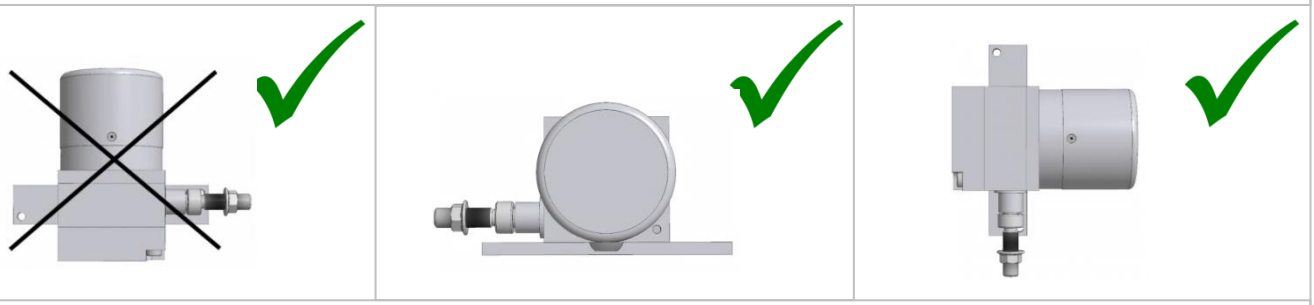


MOUNTING AND WARNINGS

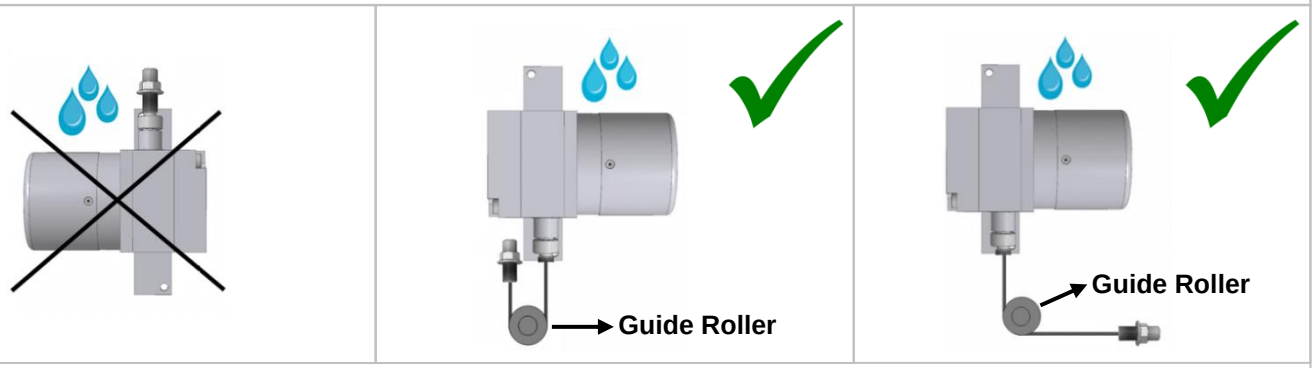
1. Never release the wire after pulling. Otherwise, the coil spring will be damaged.



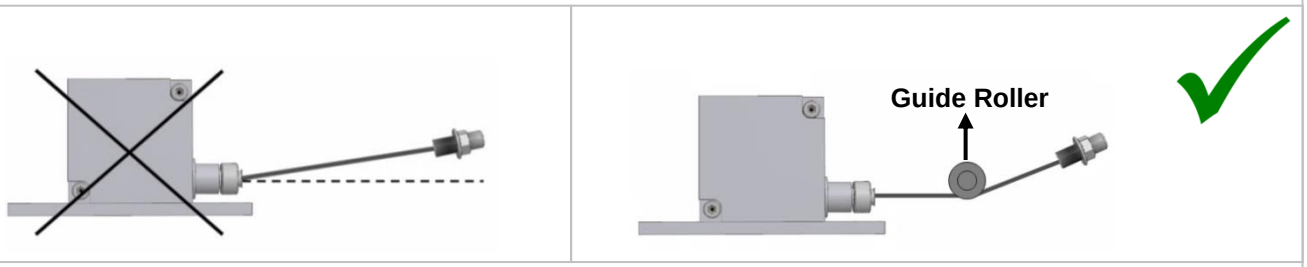
2. The wire encoder must be mounted vertically in position, not be horizontally.



3. If there is a trickle of water (like a rain), the wire outlet must not be a drip of water upstream. If needed please use guide rollers.



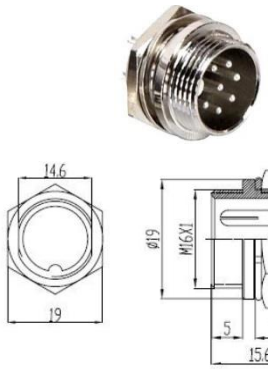
4. The wire should not be pulled in angular. If needed, please use guide rollers.



Important Note(!): Failure to comply with these recommendations, the malfunctions that may occur will not be under the warranty.

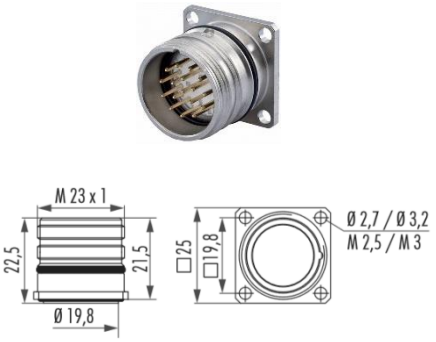
SOCKET MODELS

M16 8 PIN MALE SOCKET



M12 5 PIN MALE SOCKET

M23 12 PIN MALE SOCKET



SAMPLE APPLICATION FIELDS

- Elevators
- Press machines
- Crane systems
- Wood processing machines
- Marble processing machines
- Storage positioning
- Dam protections
- Sluice gate control
- Air compressors
- Glass processing machines
- Lifting platforms
- Applications in medical technologies (operating table etc.)
- Forklifts
- Screw machines
- Paper machines
- Sewing machines
- Hydraulic machines
- Sheet metal machines
- Printing machines
- Horizontal control equipments
- Construction machines
- Industrial robots
- Injection machines
- X-Y axis displacement
- Liquid level measurements and position control

ORDER CODE

Model

AWE 110

Stroke Length *

Different stroke (measuring) lengths between 0…300 mm and 0…1200 mm

Output Signals

2 (A,B)
3 (A,B,Z)
4 (A,/A,B,/B)
6 (A,/A,B,/B,Z,/Z)

AWE 110	–	XX	–	XXX	–	XXX	–	X	–	XX

Resolution*

05 : 0.05 mm/pulse
01 : 0.1 mm/pulse (standard)
02 : 0.2 mm/pulse

Supply and Output

PP : 10…30 VDC Supply
: 10…30VDC Output
TTL : 5 VDC Supply
: 5 VDC TTL RS422 Line Driver Output
HTL : 10…30 VDC Supply
: 5 VDC TTL RS422 Line Driver Output
HPL : 5…30 VDC Supply (standard)
: 5…30 VDC Push-Pull Output

Electrical Connection*

3M : 3m (standard)
5M : 5m
10M: 10m
S13 : M12 5 Pin Male Socket
S14 : M12 8 Pin Male Socket
S16 : M16 8 Pin Male Socket
S23 : M23 12 Pin Male Socket

(*) Please contact for other (customized) options.

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