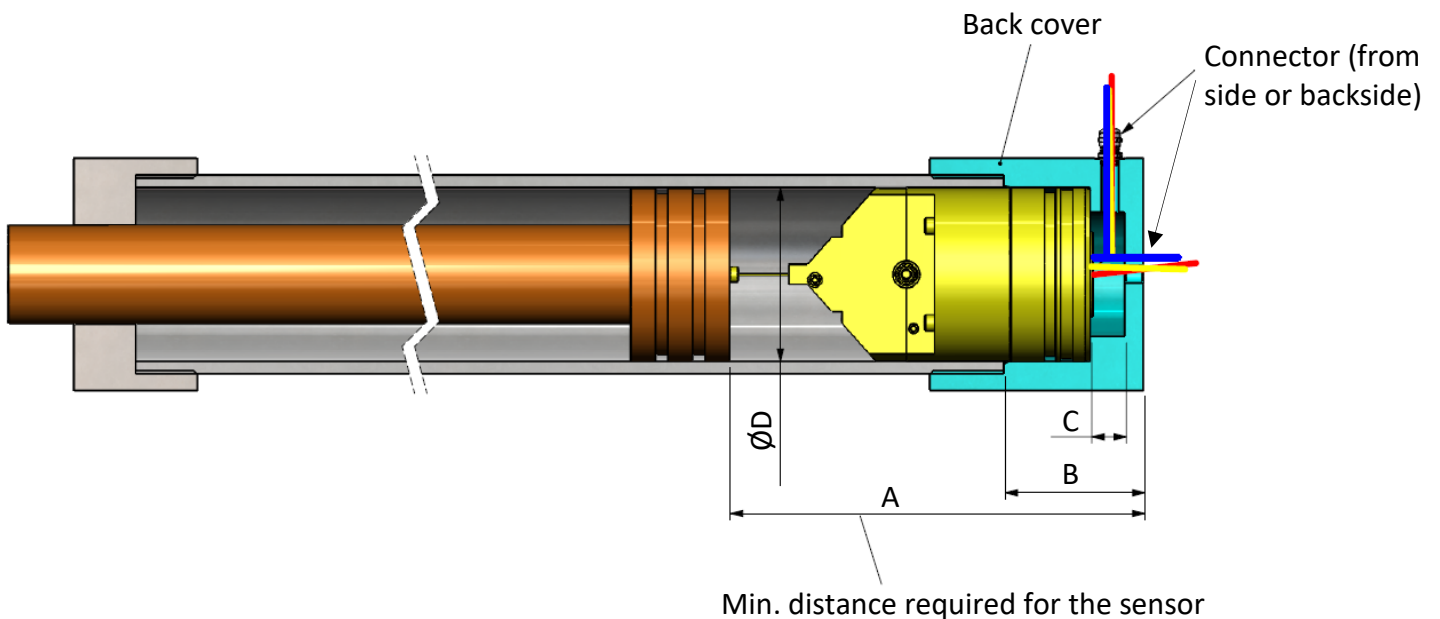


- 0...3000 mm measuring range
- Absolute measuring system
- Analog or CANopen output options
- Thanks to the teach-in feature, the minimum and maximum measurement limits can be adjusted on the sensor
- Resistant to pressure up to 350 bar and pressure peaks up to 650 bar
- Quick and easy mounting to the pistons thanks to its special design
- High electromagnetic compatibility
- High shock and vibration resistance
- IP69K high protection class

CWE series draw wire encoders are designed for direct stroke measurement in hydraulic cylinders. Absolute stroke measurement is provided by connecting directly to the cylinder with the wire system. The measuring system has magnetic contactless technology and is long-lasting. It is very advantageous compared to other sensors in the market as it does not require mechanical sensitivity adjustment.

SAMPLE APPLICATION



NOTE: The piston rod must have a mechanical end stop required to prevent it from hitting the sensor.

TECHNICAL SPECIFICATIONS

General Data

Measuring Principle	Magnetic
Stroke (measuring) Length	0...3000mm
Resolution	16 bit (analog output)
Repeatability	±0,15mm
Operating Speed	≤2m/s

Mechanical Data

Housing	Aluminum
Measuring Wire	Ø1mm stainless steel

Electrical Data

Analog Interface	
Output Signal	4-20 mA, 0-10 V, 0-5 V, 0.5-4.5 V
Output Load	For current output; min 250 Ω For voltage output; min 1 KΩ
Supply Voltage	15 ... 26 VDC
Current Consumption	≤60 mA
Reverse Polarity Protection	Yes
Linearity	±%0,25
Electrical Connection	Cable or M12/5 pin male connector

CANopen Interface

Supply Voltage	15 ... 26 VDC
Communication Profile	CiA 301
Device Type	CANopen, CiA DS406
Node ID	Adjustable from 1 to 127 with LSS or SDO
Baud Rate	10 kBit/s, 20 kBit/s, 50 kBit/s, 100 kBit/s, 125 kBit/s, 250 kBit/s, 500 kBit/s, 800 kBit/s, 1 Mbit/s
Linearity	±%0,25
Electrical Connection	Cable or M12/5 pin male + M12/5 pin female connector

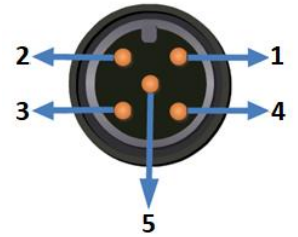
Ambient Conditions

Ambient Temperature	-40...+105°C
Storage Temperature	-40...+85°C
Relative Humidity	%100
Operating Pressure	<350 bar
Overload Pressure	<650 bar
Protection Class	IP69K

ELECTRICAL CONNECTION

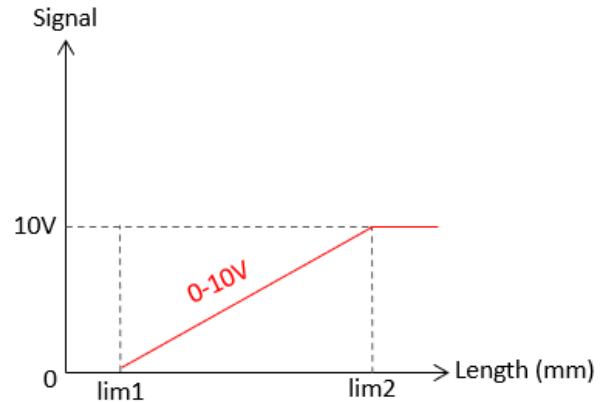
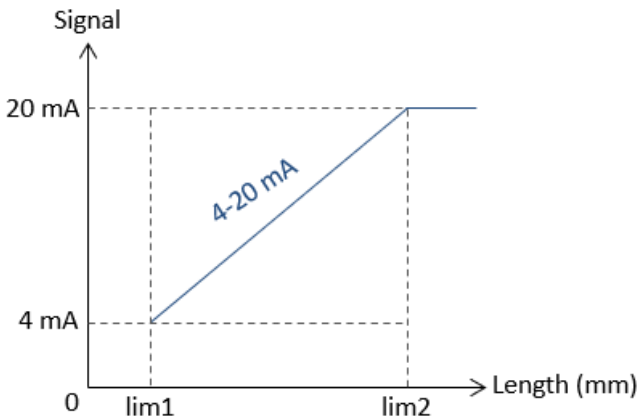
Analog

Signal	Cable	M12 5 pin male connector
V+ (15...26 VDC)	Red	Pin 1
Output: 0-10V / 0-5V / 0.5-4.5V / 4-20mA	Yellow	Pin 2
GND (0V)	Black	Pin3
N/C	Green	Pin 4
SPAN/ZERO	Pink	Pin 5



SETTING MEASUREMENT LIMITS: With this feature, you can set the minimum and maximum measurement limits. In order to determine the **minimum measurement limit (lim1)**, the SPAN/ZERO and GND terminal are short-circuited for at least 3 seconds. In order to determine the **maximum measurement limit (lim2)**, the SPAN/ZERO and GND terminal are short-circuited for at least 6 seconds. To **return to the factory settings**, the SPAN/ZERO and GND terminal are short-circuited for at least 10 seconds.

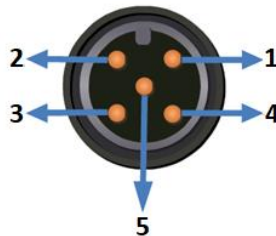
SAMPLE SIGNAL OUTPUT GRAPHICS



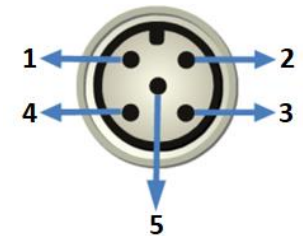
CANopen

Signal	M12 Connector	Cable
CAN_SHIELD	Pin 1	Shield
V+ (15...30VDC)	Pin 2	Red
GND (0V)	Pin 3	Black
CAN_H	Pin 4	Yellow
CAN_L	Pin 5	Green

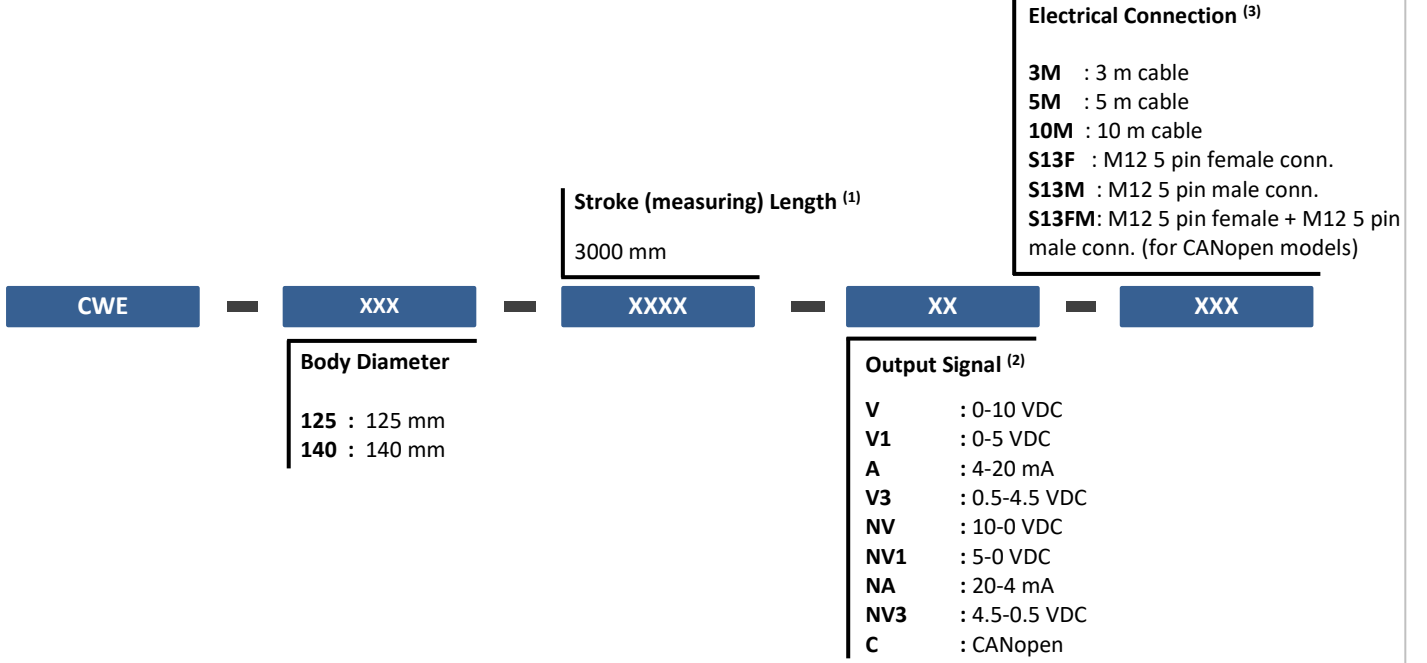
M12 5 Pin Male Connector



M12 5 Pin Female Connector



ORDER CODE



- (1) Please contact us for other (special production) stroke lengths.
- (2) The direction of the output signals can be changed optionally. In the coding, when 'N' is placed at the beginning of the normal signal, it refers to the opposite. For example; in case of **V**: 0-10 VDC, then **NV**: 10-0 VDC
- (3) The product can be requested with cable or connector.
 As standard in models with connector;
 For analog models 1 piece M12 5 pin male connector (S13M) is used.
 For CANopen models M12 5 pin female + M12 5 pin male socket (S13FM) is used.



Atek Sensor Techn



Tuzla KOSB Çiğdem Sanayi Bölgesi Melek Aras Bulvarı, No:67 34956 Tuzla-Istanbul / TURKEY





Address / Endereço:

Rua Sete de Setembro, 2656
13560-181 - São Carlos - SP
Brazil / Brasil

Phone / Telefone:

+55 (16) 3371-0112
+55 (16) 3372-7800

Internet:

www.metrolog.net
metrolog@metrolog.net