# YOUR ULTIMATE SOLUTION PARTNER FOR POSITION CONTROL APPLICATIONS





LINEAR POSITION TRANSDUCERS LINEAR & ROTARY ENCODERS DRAW WIRE SENSORS PROCESS CONTROL DEVICES PRESSURE TRANSMITTERS LEVEL SENSORS



# A tek

# ATEK SENSOR TECHNOLOGY INC.

Tuzla KOSB Organize Sanayi Bolgesi, Melek Aras Bulvari No:67Tuzla / Istanbul - TURKEY 34956Tel.: +90 216 399 44 04 pbxFax: +90 216 399 44 02Web: www.ateksensor.comE-mail: info@ateksensor.com



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# POTENTIOMETRIC MEASURING BODY CLAMP





LTM is a high precision potentiometric industrial linear motion transducer with a long lasting conductive track suitable for absolute position measuring in control and Measurement applications. Designed for the direct, absolute measurement of displacement or length in control regulation and measuring applications.

High resolution (0.01 mm) combined with a stroke length of up to 1000 mm permits the accurate measurement of linear displacement.

# LTM Series Potentiometric Linear Transducers are mainly used in :

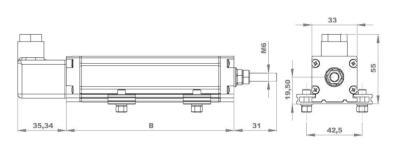
- Plastic & Metal Injection Machines
- Press Brake Machines
- Horizontal Band Saw Machines
- Transfer Machines
- Hydraulic Machines
- Sheet Metal Working Machines
- Bending Presses
- Textile MachinesRobotics/materials handling
- Profile Cutting Machines

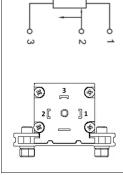


- Potentiometric measuring stroke up to 1000 mm
- Absolute measurement of displacement
- Resolution 0,01mm
- Very long life up to 100 million movements
- High operating speed 5 m/s
- The grooves provide an excellent alternative to the usual system
- Excellent Linearity %0,3
- Pivoting sleeve bearing
- Optional rod joint

# **Technical Specifications**

Defined Electrical Ranges	50 - 75 - 100 - 125 - 150 - 200 - 175 - 200 - 225 - 250 -275 - 300 - 360 - 400 - 450 - 500 - 550 - 600 - 650 - 700 - 750 - 800 - 900 - 1000
Resistance Element	Conductive Plastic
Output Signals	Potentiometric ( Voltage Divider ) Analog outputs: 0-10VDC or 0/4-20mA
Independent Linearity	± %0,3
Electrical Connection	4 pin female DIN43650
Power Supply	Max. 42VDC Analog Series : 24VDC
Resistance	5K or 10Kohm and other ( $\pm\%20$ tolerance )
Protection Class	IP65
Temperature Range	-30°C +100°C
Life	100 million movements
Mechanical Fixing	Adjustable distance clamps
Rod material	Stainless Steel





Potentiometric connection (Voltage Divider)

ANALOG OUTPUTS

1.+24VDC Supply

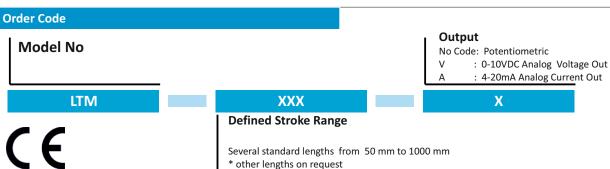
2.Analog Output

A: 4-20mA Current Out

V : 0-10VDC Voltage Out

3.GROUND





# **LTM**



# POTENTIOMETRIC MEASURING TWIN BEARING ACTUATING ROD

# **SPECIAL FEATURES**

- Twin bearing actuating rod
- Mountable over backlash free pivots heads with a large angle of free movement
- Maximum angular movement up to ±30°
- Potentiometric measuring stroke up to 750 mm
- Absolute measurement of displacement
- Resolution 0,01mm
- Very long life up to 100 million movements
- High operating speed 5 m/s
- The grooves provide an excellent alternative to the usual system
- Excellent Linearity %0,3

# **Technical Specifications**

Defined Electrical Ranges	50 - 75 - 100 - 125 - 150 - 200 - 175 - 200 225 - 250 -275 - 300 - 360 - 400 - 450 - 500 550 - 600 - 650 - 700 - 750
Resistance Element	Conductive Plastic
Output Signals	Potentiometric ( Voltage Divider ) Analog outputs: 0-10VDC or 0/4-20mA
Independent Linearity	± %0,3
Electrical Connection	4 pin female socket
Power Supply	Max. 42VDC Analog Series : 24VDC
Resistance	5K or 10Kohm and other ( $\pm\%20$ tolerance )
Protection Class	IP65
Temperature Range	-30°C +100°C
Life	100 million movements
Mechanical Fixing	With 2 ball-joints
Rod material	Stainless Steel



LTP is built easy mounting by double pivot heads. It's a high precision potentiometric industrial linear motion transducer with a long lasting conductive track suitable for absolute position measuring in control and Measurement applications. Designed for the direct, absolute measurement of displacement or angle in control regulation and measuring applications.

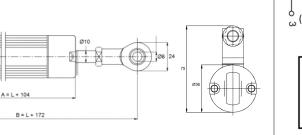
Mechanical fixing and self-aligning linkage using 2 ball joints. Maximum angular movement angle is up to  $\pm\,30^\circ$ 

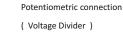
High resolution (0.01 mm) combined with a stroke length of up to 750 mm permits the accurate measurement of linear displacement.

# LTP Series Potentiometric Linear Transducers are mainly used in :

- Press Brake Machines
- Marble Machines
- Tension Control
- Horizontal Band Saw Machines
- Transfer Machines
- Hydraulic Machines
- Sheet Metal Working Machines
- Bending Presses
- Textile Machines





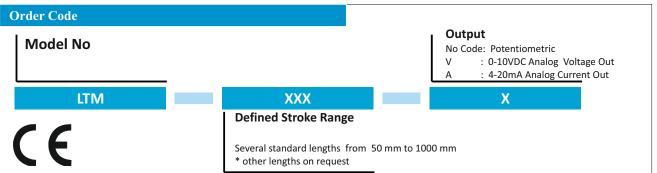


# ANALOG OUTPUTS

1.+24VDC Supply

- 2.Analog Output
- A: 4-20mA Current Out
- V: 0-10VDC Voltage Out
- 3.GROUND

4.SHIELD



# LTP

# POTENTIOMETRIC MEASURING TWIN BEARING ACTUATING ROD





LTC is built easy mounting by double pivot heads. The only difference from the LTP series is the square frame body. It's a high precision potentiometric industrial linear motion transducer with a long lasting conductive track suitable for absolute position measuring in control and Measurement applications. Designed for the direct, absolute measurement of displacement or angle in control regulation and measuring applications.

Mechanical fixing and self-aligning linkage using 2 ball joints. Maximum angular movement angle is up to  $\pm$  30°

High resolution (0.01 mm) combined with a stroke length of up to 750 mm permits the accurate measurement of linear displacement.

# LTC Series Potentiometric Linear Transducers are mainly used in ;

- Press Brake Machines
- Marble Machines
- Tension Control
- Horizontal Band Saw Machines
- Transfer Machines
- Hydraulic Machines
- Sheet Metal Working Machines
- Bending Presses
   Textile Machines

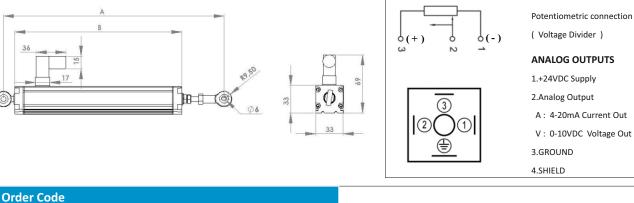


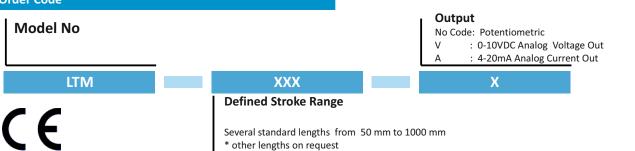
# **SPECIAL FEATURES**

- Twin bearing actuating rod
- Square body (rod diameter 6mm)
- Mountable over backlash free pivots heads with a large angle of free movement
- Maximum angular movement up to ±30°
- Potentiometric measuring stroke up to 500 mm
- Absolute measurement of displacement
- Resolution 0,01mm
- Very long life up to 100 million movements
- High operating speed 5 m/s
- The grooves provide an excellent alternative to the usual system
- Excellent linearity %0,3

# Technical Specifications

Defined Electrical Ranges	50 - 75 - 100 - 125 - 150 - 200 - 175 - 200 - 225 250 -275 - 300 - 360 - 400 - 450 - 500
Resistance Element	Conductive Plastic
Output Signals	Potentiometric ( Voltage Divider ) Analog outputs: 0-10VDC or 0/4-20mA
Independent Linearity	± %0,3
Electrical Connection	4 pin female socket
Power Supply	Max. 42VDC Analog Series : 24VDC
Resistance	5K or 10Kohm and other ( $\pm\%20$ tolerance )
Protection Class	IP65
Temperature Range	-30°C +100°C
Life	100 million movements
Mechanical Fixing	With 2 ball-joints and fixing clamps
Rod material	Stainless Steel
Body and Rod Type	Square Body , 6mm rod diameter





LTC

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# POTENTIOMETRIC MEASURING SHORT STROKES TASTER

- Small Sizes
- Absolute measurement of displacement
- Resolution 0,01mm
- Very long life up to 100 million movements
- High operating speed 5 m/s

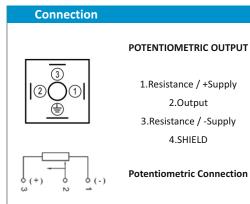
**Technical Specifications** 

- Between 10 mm to 150 mm electrical ranges
- Protection Class Ip65



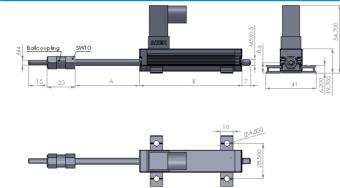
reennearopeennearons	
Defined Electrical Range	10 - 25 - 50 - 75 - 100 - 150
Resistance Element	Conductive Plastic
Output Signals	Potentiometric
Independent Linearity	± %0,3
Electrical Connection	4 pin female socket
Power Supply	Max. 42VDC
Resistance	5K or 10Kohm and other ( $\pm\%20$ tolerance )
Protection Class	IP65
Temperature Range	-30°C +100°C
Life	100 million movements
Rod material	Stainless Steel

LT is a high precision potentiometric industrial linear motion transducer with a long lasting conductive track suitable for absolute position measuring in control measurement applications.

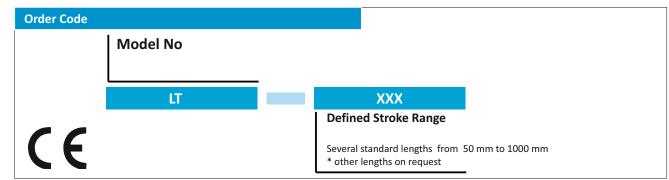


(Voltage Divider)

# Mechanical Dimensions



Strokes (mm)	25	50	75	100	150
Α	27	52	77	102	152
В	63	88	113	138	188
Electrical Stroke	25	50	75	100	150
Mechanical Stroke	27	52	77	102	152



# LT

# POTENTIOMETRIC MEASURING SPRING SYSTEM, SHORT STROKES

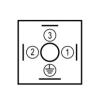




LTR Series are the industry proven system on both actuator shaft and spring.

LTR is a high precision potentiometric industrial linear motion transducer with a long lasting conductive track suitable for absolute position measuring in control measurement applications.

# Connection



# POTENTIOMETRIC OUTPUT

1.Resistance / +Supply 2.Output 3.Resistance / -Supply 4.SHIELD

**Potentiometric Connection** 

(Voltage Divider)

•	S	prii	ng	sys	tem	

- Potentiometric measuring
- High resolution

**Technical Specifications** 

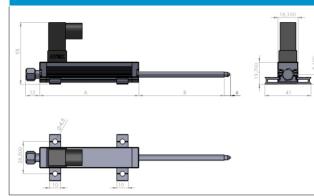
- Very long life up to 100 million movements
- High operating speed 5 m/s
- Between 10 mm to 150 mm electrical ranges
   Protection Class IP65

Defined Electrical Range	10 - 25 - 50 - 75 - 100 - 150
Resistance Element	Conductive Plastic
Output Signals	Potentiometric
Independent Linearity	± %0,3
Electrical Connection	4 pin female socket
Power Supply	Max. 42VDC
Resistance	5K or 10Kohm and other ( $\pm$ %20

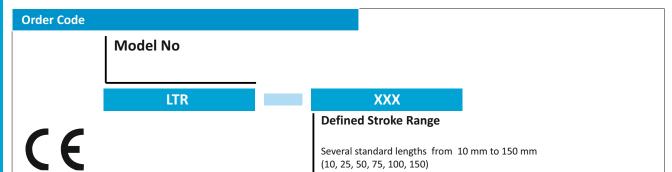
Liethtai connection	- pintemale socket
Power Supply	Max. 42VDC
Resistance	5K or 10Kohm and other ( $\pm$ %20 tolerance
Protection Class	IP65
Temperature Range	-30°C +100°C
Life	100 million movements
Rod material	Stainless Steel

e)

# **Mechanical Dimensions**



-	trokes mm)	10	25	50	75	100	150
A	l l	48	63	95	135	167	227
В		16	57	82	107	132	182
_	lectrical troke	25	50	75	100	150	150
	/lechanical troke	12	27	52	77	102	152



# LTR



# POTENTIOMETRIC MEASURING SINGLE SIDE ACTUATING ROD, COMPACT BODY



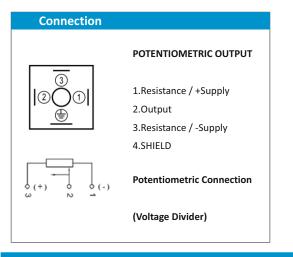
- Potentiometric Measurement
- Single side Actuating Rod
- Ball Coupling against lateral forces
- Measuring distances from 10 mm to 150 mm
- High Resolution

**Technical Specifications** 

- Long life with 100 million moves
- High operating speed 5 m/s

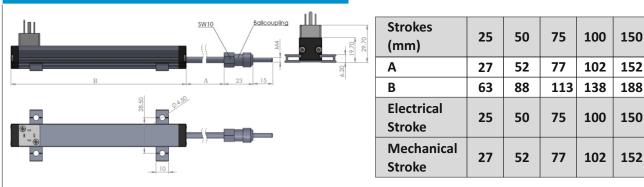
LF Series are the industry proven system with single side actuating rod in its very compact size.

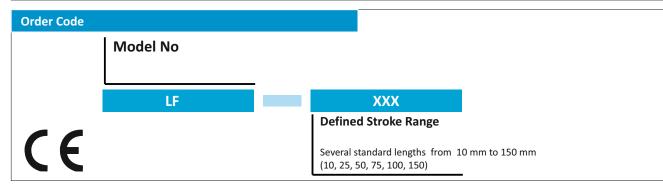
LF is a high precision potentiometric industrial linear motion transducer with a long lasting conductive track suitable for absolute position measuring in control measurement applications.



Defined Electrical Range	10 - 25 - 50 - 75 - 100 - 150
Resistance Element	Conductive Plastic
Output Signals	Potentiometric
Independent Linearity	± %0,6
Electrical Connection	4 pin female socket
Power Supply	Max. 42VDC
Resistance	5K or 10Kohm and other ( $\pm\%20$ tolerance )
Protection Class	IP65
Temperature Range	-30°C +100°C
Life	100 million movements
Rod material	Stainless Steel

# **Mechanical Dimensions**





# POTENTIOMETRIC MEASURING DOUBLE SIDE ARTICULATED or SPRING SYSTEM





LFM and LFR series are a high precision potentiometric industrial linear motion transducer with a long lasting conductive track suitable for absolute position measuring in control measurement applications.

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# LFM LFR

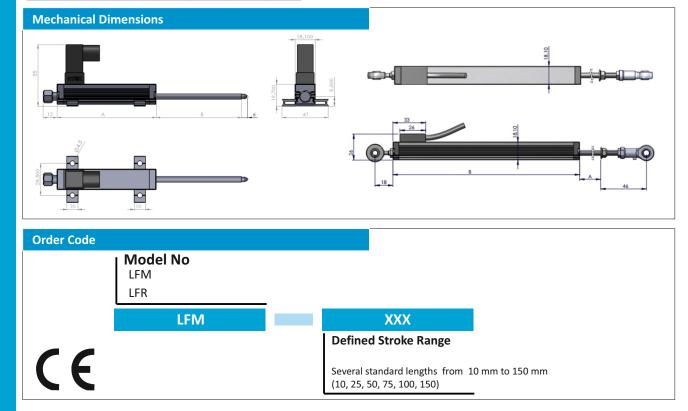
Strokes (mm)	25	50	75	100	150
Α	27	52	77	102	152
В	63	88	113	138	188
Electrical Stroke	25	50	75	100	150
Mechanical Stroke	27	52	77	102	152

# • Potentiometric Measurement

- Very compact and small body size
- Double sided articulated series: LFM
- Spring system series: LFR
- Ball Coupling against lateral forces
- Measuring distances from 10 mm to 150 mm
- High Resolution
- Long life with 100 million moves
- High operating speed 5 m/s

# **Technical Specifications**

Defined Electrical Range	10 - 25 - 50 - 75 - 100 - 150
Resistance Element	Conductive Plastic
Output Signals	Potentiometric
Independent Linearity	± %0,6
Electrical Connection	4 pin female socket
Power Supply	Max. 42VDC
Resistance	5K or 10Kohm and other ( $\pm\%20$ tolerance )
Protection Class	IP65
Temperature Range	-30°C +100°C
Life	100 million movements
Rod material	Stainless Steel





# **MAGNETIC LINEAR SCALES TWIN BEARING ACTUATING ROD**

- Stroke up to 750 mm ٠
- Magnetic non contacting •
- Incremental measurement of displacement ٠ Push Pull or TTL line driver Output
- •
- Resolution 0,005mm 0,010mm 0,025mm 0,080mm
- . Infinite mechanical life
- High operating speed 5 m/s •
- Twin bearing actuating rod .
- Mechanical fixing and self aligning linkage using 2 ball joints .
- Free pivot heads with a large angle of free movement (± 30°)



# **Technical Specifications**

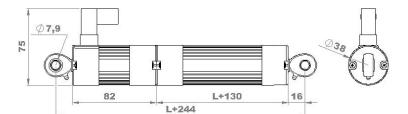
Defined Electrical Range	50 - 75 - 100 - 120 - 150 - 200 - 170 - 200 - 220 250 - 270 - 300 - 320 - 370 - 400 - 450 - 500 - 550
	600 - 650 - 700 - 750
Resolution	5 μm , 10 μm , 25 μm , 62,5 μm or 80 μm other models on request
Output Type	Push Pull or TTL Line Driver
Output Signals	Standard with socket A-B Channels, Cable models ABZ or A, B, Z,/A,/B,/Z Channels
Electrical Connection	4 pin female socket
Power Supply	PP:24VDC TTL:5VDC
Repeatability	± 1 pulse
Protection Class	IP65
Temperature Range	-20°C +85°C
Life	Infinite
Mechanical Fixing	With 2 ball joints
Rod material	Stainless Steel

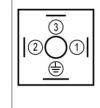
LTS is a high precision Magnetic Linear Encoder LTS System that operates incremental principle. It consists of a sensing head and a magnetically encoded tape. Magnetic tapes are commonly made from a magnetic tape itself made from Strontium ferrite bonded into a plastic or rubber (elastomeric) matrix which is then bonded onto a steel support.

The magnetic tape system is mounted on the actuating rod and is coupled free of backlash; this guaranteeing the highest accuracy and the longest lifetime

# LTS Series Magnetic Linear Encoders are mainly used in;

- Press Brake Machines
- Horizontal Band Saw Machines
- Transfer Machines •
- Hydraulic Machines
- Sheet Metal Working Machines ٠
- Bending Presses





1."B" Signal 2."A" Signal 3.Vcc Power Supply Push Pull: 24VDC TTL : 5VDC 4.GND

Order Code Model No			PP : 24 : 24 VDO TTL : 5 V : 5 VDC HTL: 24 : 5 VDC	r Supply and Output 4 VDC Power Supply C Push-Pull Output VDC Power Supply TTL R5422 Line Driver Output VDC Power Supply TTL R5422 Line Driver Output on request!	50mm to 750n	ard lengths from
LTS	XX	XXX		X	XXX	
CE	Resolution           05         = 5 μm           10         = 10 μm           25         = 25 μm           62,5         = 62,5μm           80         = 80 μm			Output Signals 2 = A, B 4 = A, B, /A, /B 4 = A, B, /A, /B, Z, /Z		
				*optional every 5m	m "Z" index pulse	

# **LTS**

# MAGNETIC LINEAR ENCODER SYSTEM READER SENSORS





MLS - 110

MLS - 120





MLS - 130

MLS - 210

# SPECIAL FEATURES

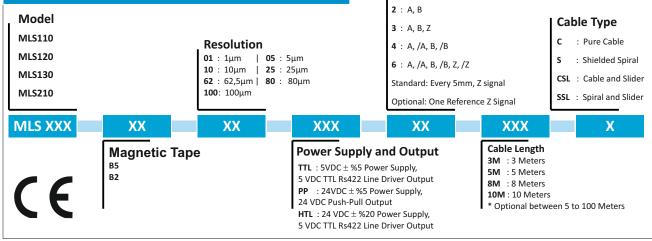
- Wide range of available resolution up to  $1\,\mu\text{m}$
- Protection class Ip67
- Resistant to humidity
- Easy mounting
- Incremental outputs A, /A, B, /B and Z Reference signal
- Output signal Push-pull, TTL or RS422 line driver
- 5VDC or 10...30VDC Power Supply
- Robust shielded aluminum
- MLS 120, slider integrated and socket system body

MLS series reader sensors glide contactless over the profile/tape with a gap up to 2 mm.

MLS-110 reader sensors can be used with B series magnetic tape, PS1 profile and PS2 profile. Spiral or pure cable models are available. MLS-110 reader sensor provides maximum simple mounting with small size. MLS-120 socket system reader sensors can be used with B series magnetic tape, PS1 profile and PS2 profile. MLS-120 sensor has extra protection for the bad environmental conditions by slider.

MLS-130 can be mounted even in the most cramped spaces with very small size. MLS-130 can be used with all profile and magnetic band systems. MLS-210 reader sensors can be used with all magnetic tape and profile systems but we suggest you with PS1 profile and PS3 profile for the best harmony. MLS-210 reader sensor both slide / slideless models and spiral / pure cable models are available.

Technical Specifications (MLS-110, MLS-120, MLS-130)		Technical Specifications (MLS-210)	
Resolution	1µm, 5µm, 10µm, 25µm, 50µm, 62.5µm, 80µm, 100µm (other models on request)	Resolution	5µm, 10µm, 25µm, 50µm, 62.5µm, 80µm, 100µm (other models on request
Output Signal Type	Push-Pull or TTL RS422 Line Driver	Output Signal Type	Push-Pull or TTL RS422 Line Driver
Output Signals	A, /A, B, /B, Z, /Z	Output Signals	A, /A, B, /B, Z, /Z
Current	Maximum 40 mA per Channel	Current	Maximum 40 mA per Channel
Power Supply	1030 VDC or 5 VDC	Power Supply	1030 VDC or 5 VDC
Housing Material	Aluminum	Housing Material	Aluminum
Gap Between Tape and Sensor	0,1 mm to 2 mm	Gap Between Tape and Sensor	0,1 mm to 2 mm
Travel Velocity	3 m/s	Travel Velocity	3 m/s
Repeatability	± 1 Pulse	Repeatability	± 1 Pulse
Operating Temperature	-25 to +85°	Operating Temperature	-25 to +85°
Protection Class	IP67	Protection Class	IP67
Order Code		Signal Outp	ut Type



# MLS



# MAGNETIC LINEAR ENCODER SYSTEM MAGNETIC TAPES & CARRIER PROFILES



# **SPECIAL FEATURES**

- Easy mounting
- High accuracy
- Resistant to humidity
- Protection class Ip67
- Contactless and wear free system

B series magnetic tape is supplied with non-magnetic stainless steel cover for physical protection; for its fixing an adhesive tape is pre-mounted. B series magnetic tape is composed by three layers; a flexible magnetic tape made of a plastic material, upside cover strip and downside cover strip. In the profile systems, magnetic tape integrated in the profiles. PS1 systems most important specialty of the system is easy assembly. It can be used with MLS-110, MLS-120 and MLS-210 reader sensors.

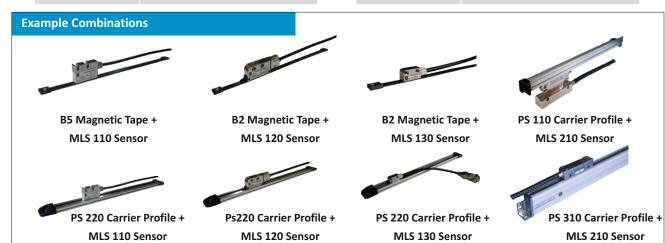
PS 200 Series "Slim" profile is highly rugged, flexible plastic magnetic tape can be applied to a machine tool easily. It can be used for all reader sensors.

PS3 "Closed" profile, with the sealing system the extra protection provided against to dust, chip etc. It can be used with only MLS 210 reader sensors.

**PS Series Profiles Technical Specifications** 

# **B** Series Magnetic Tapes Technical Specifications

Operating	-40 to +120°	Life Body Material		Infinite (Contactless)
Temperature				Aluminum
Pole Pitch	5 mm, 2 mm		Gan Botwoon	
Accuracy Class	±40 μm/m or ±20 μm/m	Gap Between Tape and Sensor		1,5 mm (Maximum 2,5 mm)
Temperature	11 ± 11 μm/K		Magnetic Tape Type	B5 (Optional B2)
Coefficient				
CrNi 17 7 stainless steel carrierWater Protectionnitrile rubber high temperature			Operating Temperature Range	-25 to +85°
	magnetic tape		Protection Class	lp67



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# MAGNETIC LINEAR ENCODER SYSTEMS MLC 300 SERIES COMPACT SCALES







# MLC 300



# **MLC 300 SERIES GENERAL PROPERTIES**

- High accuracy measurement with contactless magnetic system
- Measuring up to 20 meters in harsh conditions
- Resolution options up to  $1 \, \mu m$
- Robust aluminum housing with excellent immunity against shock and vibrations
- Double sealed protection against harsh environments with dust, humid and oil
- Stable precision at high speeds
- Maintenance-free due to non contact measuring technology
- · High reliability and repeability
- Easy mounting

# <u>MLC330</u>

- Excellent quality sealed protection and thin profile design
- MLC330, built with the newest and highest technology,has completed all of durability tests against harsh environment conditions like dust, humid, oil etc.



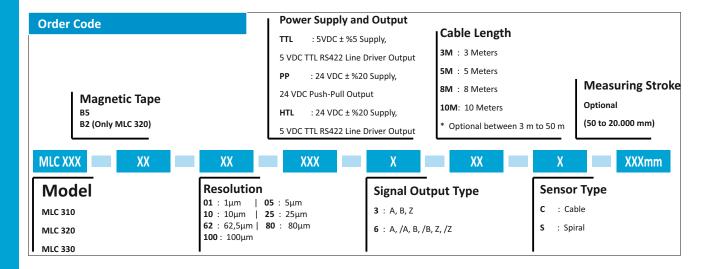
# MLC320

• Compact system embedded in extra thin profile design

- Recommended only up to 2 meters
- Motion-free reader sensor allows MLC320 to be
- ultimately durable against vibrations and axial shifts

# MLC310

- Double sealed protection
- Recommended for long ranges
- Mounting holes for hassle-free mounting





# MLC 420 SPECIAL FEATURES

- Integrated wear-free roller guide with steel ball bearings on steel rod
- Portable reference point
- Contactless system
- High resolution up to 0,005 mm
- Smooth slide
- High resistance to vibrations
- Full sealed protection class Ip67
- Excellent stability quadrature output
- Large mounting tolerances
- High accuracy

Especially it is recommended for applications with a measuring length of up to 2040 mm in high speed and high vibration environments and small places.

MLC 420 is usable right or left with its portable reference point. It has large mounting tolerances with its ergonomic design.

# **MLC 410 SPECIAL FEATURES**

- Self adjustment of the clearance between the guide and the carriage
- Double gasket protection
- Contactless system
- High resolution up to 0,005 mm
- Single reference marker
- High resistance to vibrations
- Full sealed protection class Ip67
- Excellent stability quadrature output
- Stainless steel cover protect
- High accuracy

The special design of the mounting points minimizes accuracy errors due to temperature changes. On the other hand, the MLC 410 series includes a special support that further improves it behavior against the vibrations caused by the machine.

The reader sensor has a connector. The linear encoder is supplied as a pre assembled unit. The linear encoder and reader sensor are connected to the aluminum support and it can be connected directly to the machine.



 MILC 420 Technical Specifications

 Resolution

 Output Type

 Output Signals

 Input Current

 Output Current

 Power Supply

 Housing Material

 Magnetic Tape

 Travel Velocity

 Repeatability

 Operating Temperature

Protection Class

MLC 410 Tech

5μm, 10μm, 25μm, 62.5μm (or other) Push-Pull or TTL RS422 Line Driver A, /A, B, /B, Z, /Z Nominal 50 mA 70 mA (For Every Channel) 10..30 VDC or 5 VDC Aluminum B2 or B5 Nitril Rubber 3 m/s ± 1 Pulse -25 to +85° 1ρ67

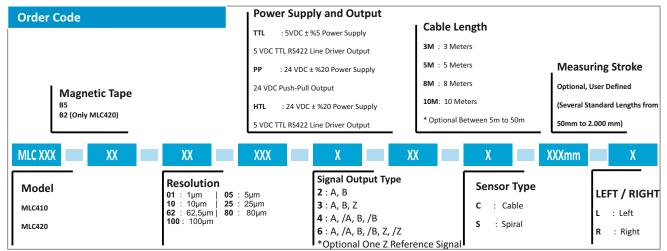
MAGNETIC LINEAR ENCODER SYSTEM MLC 400 SERIES COMPACT SYSTEM



MLC 400

# ons 5µm, 10µm, 25µm, 62.5µm (or other) Push-Pull or TTL RS422 Line Driver A, /A, B, /B, Z, /Z

Resolution	5µm, 10µm, 25µm, 62.5µm (or other)		
Output Type	Push-Pull or TTL RS422 Line Driver		
Output Signals	A, /A, B, /B, Z, /Z		
Input Current	Nominal 50 mA		
Output Current	70 mA (For Every Channel)		
Power Supply	1030 VDC or 5 VDC		
Electrical Connection	Cable max. 50m		
Housing Material	Aluminum		
Magnetic Tape	B5 Nitril Rubber		
Travel Velocity	3 m/s		
Repeatability	± 1 Pulse		
Operating Temperature	-25 to +85°		
Protection Class	lp67		



# **INCREMENTAL ROTARY ENCODERS** SHAFTED ENCODERS



Suitable application uses include; Industrial machines, elevators, robots, plotters, cutting machines, injection molding machines, rotary x-y table, NC machine and other position or angle measurement.

It's what you need from your encoder and it's what you get with ATEK SENSOR, the recognized leader in motion feedback control, ATEK SENSOR delivers the most comprehensive encoder selection that's designed with you in mind. Whether you have a heavy, industrial or light-duty application on your hands, the family of trusted ATEK SENSOR brands can meet our specifications.

Suitable application uses include; Industrial machines, elevators, robots, plotters, cutting machines, injection molding machines, rotary x-y table, NC machine and other position or angle measurement.



S16 (M16, 8 Pin)

Socket Connector



S23 (M23, 12 Pin) Socket

Connector

A

• •

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• Magnetic or Optical System Incremental Measuring

50 or 58 mm Body Diameter Resolution up to 5.000 Pulse

Connector or Cable Output

Custom Design Available

**Economical Encoder** 

6 mm, 8 mm or 10 mm shaft diameter

tek



Backside Poliemid Spiral





**Clamping Flange** 

Synchro Flange

Tacho Flange

* Standard Resolutions			
Optical	100 - 360 - 500 - 1024 - 2048 (or on request)		
Magnetic	4 - 8 - 16 - 20 - 25 - 32 - 40 - 50 - 64 - 80 - 100 - 125 - 128 - 200 - 250 - 256 - 400 - 500 512 - 800 - 1000 - 1024 - 2048 - 3600 - 4096 - 5000 (or on request)		
Order Code Model ARC : Optical ARS : Magnetic 50 : 50 mm 58 : 58 mm	Power Suply and Output       Cable Length         PP : 1030 VDC Supply       3M : 3M (Standard)         :1030VDC Output       5M : 5M         TTL : 5 VDC Supply       5M : 5M         :5 VDC TTL Output       10M : 10M         HTL : 1030 VDC Supply       10M : 10M         :5 VDC TTL Output       S16 : M16 8 Pin Socket Connector (Only Backside)         HPL : 524 VDC Supply       52 (Only Sidewise and 58 mm body encoder)         OCL : Open Collector (only optical)       58 mm body encoder)		
XXX Shaft Type Res	XXX     XXX     X     X     X     X     X       Solution     3 : A, B, Z     G : A, /A, B, /B, Z, /Z     Cable Direction     Flange Type       Solutions*     G : A, /A, B, /B, Z, /Z     Flange Type     C : Clamping       Solutions*     G : A, /A, B, /B, Z, /Z     S : Backside + Spiral     Flange Type		

# ARC **ARS**



# INCREMENTAL ROTARY ENCODERS SEMI HOLLOW SHAFT ENCODERS

- Magnetic or Optical System
- Incremental Measuring
- 50 or 58 mm Body Diameter
- Resolution up to 5.000 Pulse
- 6 mm, 8 mm, 10 mm, 12 mm or 14 mm hole diameter
- Connector or Cable Output
- Custom Design Available
- Economical Encoder



Atek semi hollow shaft encoders' hole diameter can be between 6 mm to 14 mm. Standard hole diameters: 6 mm, 8 mm, 10 mm, 12 mm and 14 mm. The other hole diameters can chosen on request.

User can connect the encoder by cable or connector socket. There are two options for socket connector. S16 socket connector is M16 and 8 pin. S16 socket connector can be at the backside of the encoder. S23 socket connector is M23 and 12 pin. S23 socket connector can be at the sidewise of the encoder.

Atek semi hollow shaft encoders are high-resolution encoder. Resolution can be chosen between 4 pulse to 5.000 pulse.

There are two body diameter option: 50 mm and 58 mm. S16 socket can be used for all body diameters but S23 socket can be used for only 58 mm body.

ARS ARC





FZ - "Z" Type Flange

FC – Circular Flange







S16 (M16, 8 Pin) SocketS23 (M23, 12 Pin) SocketConnectorConnector

Spiral

## \* Standard Resolutions **Optical** 100 - 360 - 500 - 1024 - 2048 (or on request) 4 - 8 - 16 - 20 - 25 - 32 - 40 - 50 - 64 - 80 - 100 - 125 - 128 - 200 - 250 - 256 - 400 - 500 Magnetic - 512 - 800 - 1000 - 1024 - 2048 - 3600 - 4096 - 5000 (or on request) **Order Code Power Suply and Output Cable Length** 3M : 3M (Standard) PP : 10...30 VDC Supply : 10...30VDC Output 5M : 5M TTL : 5 VDC Supply 8M : 8M 5 VDC TTL Output 10M : 10M Hole Diameter HTL: 10...30 VDC Supply S16 M16 8 Pin Socket Connector : 6 mm 6 Model **Body Size** : 5 VDC TTL Output (Only Backside) : 8 mm 8 HPL : 5...24 VDC Supply S23 M23 12 Pin Socket Connector ARC : Optical 10 : 10 mm 50 : 50 mm : 5...24 VDC Push-Pull Output (Only Sidewise and 12 : 12 mm 58 mm body encoder) OCL : Open Collector (Only Optical) ARS : Magnetic 58 : 58 mm 14 : 14 mm XXX XXX XX В XXX XX Х Х Х **Cable Direction** Flange Type Shaft Type Resolution **Output Signals** : Backside FZ : "Z" Type 3 : A. B. Z B : Semi Hollow See Resolutions\* 6 : A, /A, B, /B, Z, /Z Y : Sidewise Flange AS : Backside + Spiral FC : Circular Shafted (Blind) Flange

# INCREMENTAL ROTARY ENCODERS HOLLOW SHAFT ENCODERS





Atek hollow shaft encoders' hole diameter can be between 6 mm to 42 mm. Standard hole diameters for 50 and 58 mm body: 6 mm, 8 mm, 10 mm. Standard hole diameters for 100 mm body: 30 mm, 32 mm, 38 mm, 40 mm, 42 mm. The other hole diameters can chosen on request.

Atek hollow shaft encoders are high-resolution encoder. Resolution can be chosen between 200 pulse to 10.000 pulse.

There are three body diameter option: 50 mm, 58 mm and 100 mm. Backside flange can be used for only 50 mm body. Circular flange can be used for 50 mm or 58 mm body encoder. "Z" type flange can be used for all encoder models. Or all flanges can be used for all encoders on request.

Standard cable lengths 3 meters, 5 meters, 8 meters and 10 meters. Optionally up to 35 meters.

- Magnetic or Optical System
- Incremental Measuring
- 50 mm, 58 mm or 100 mm Body Diameter
- Resolution up to 10.000 Pulse
- Hole Diameter Between 6 mm to 42 mm
- Cable Output
- Custom Design Available
  - Economical Encoder





B – Backside Flange

FC – Circular Flange





FZ - "Z" Type Flange

* Standard Resolutions			
Optical	1024 (or on request)		
Magnetic	200 - 400 - 625 - 800 - 1000 - 1250 - 1600 - 2000 - 2500 - 3200 - 4000 - 5000 6250 - 6400 - 8000 - 10.000 (or on request)		
	HPL:     524 VDC Supply     IOM : IOM*     IOM : OM*       Solution:     524 VDC Push-Pull Output     IOM : IOM*     B: Backside Flange		

# ARC ARS



# INCREMENTAL ROTARY ENCODERS ABSOLUTE ENCODERS



# ARF S 58: SinCos Rotary Encoder

- Magnetic measurement principle
- Shafted 58 mm diameter body
- 2048 pulse resolution
- Absolute Sin/Cos output signals
- · Easy mount design for motors



 Output signal samples: A and B are incremental encoder signals which are generated 2048 times in single turn. R is reference signal, C and D are absolute sin/cos signals, which are generated once in single turn.

# SAS: Singleturn absolute Rotary Encoder

- Magnetic measurement principle
- · Shafted or semi hollow (end-hollow) shafted
- 37, 50 or 58 mm body diameter
- 6, 8 or 10 mm shaft or hole diameter
- 14 bit resolution: 0,02° accuracy
- Absolute output signals: CANopen, 4-20 mA, 0-10 V, Binary, TTL, Open Collector

C

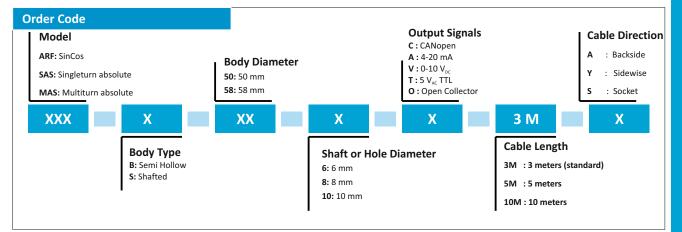
- Redundant output option (Dual output on single device)
- Operating at very high speeds: 5000 RPM
- Protection class: IP 67





- MAS: Multiturn absolute Rotary Encoder
- Magnetic measurement principle
- Shafted or semi hollow (end-hollow) shafted
- 37, 50 or 58 mm body diameter
- 6, 8 or 10 mm shaft or hole diameter
- Multiple turns: 0,02° accuracy
- Absolute output signals: CANopen, 4-20 mA, 0-10 V, Binary, TTL, Open Collector
- Redundant output option (Dual output on single device)
- Protection class: IP 67

→ All our custom absolute rotary encoders provides accurate position information; even when there is a power failure and the sensor continues to move.

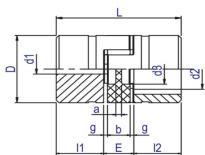


# ARF SAS MAS

# COUPLINGS







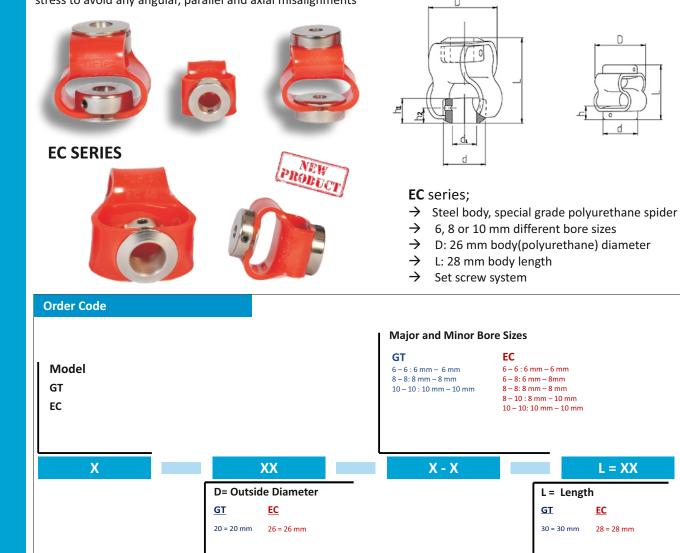
# **GT AND EC SERIES GENERAL PROPERTIES**

- Flexible, backlash-free and durable design
- No maintenance or lubrication required, very long life
- Fully error-free and uniform power transmission
- Driven elements are connected with polyurethane which provides %100 electrical and vibrational isolation

Durable against very high torques with the intermediate element polyurethane, seperating metallic hubs from each other.
All pieces are assembled co-axially and applied positive prestress to avoid any angular, parallel and axial misalignments

# GT series;

- → Aluminum body, special grade polyurethane spider
- $\rightarrow$  6, 8 or 10 mm different bore sizes
- $\rightarrow$  D: 26 mm body(polyurethane) diameter
- $\rightarrow$  L: 28 mm body length
- → Clamping hub system





# COUPLINGS

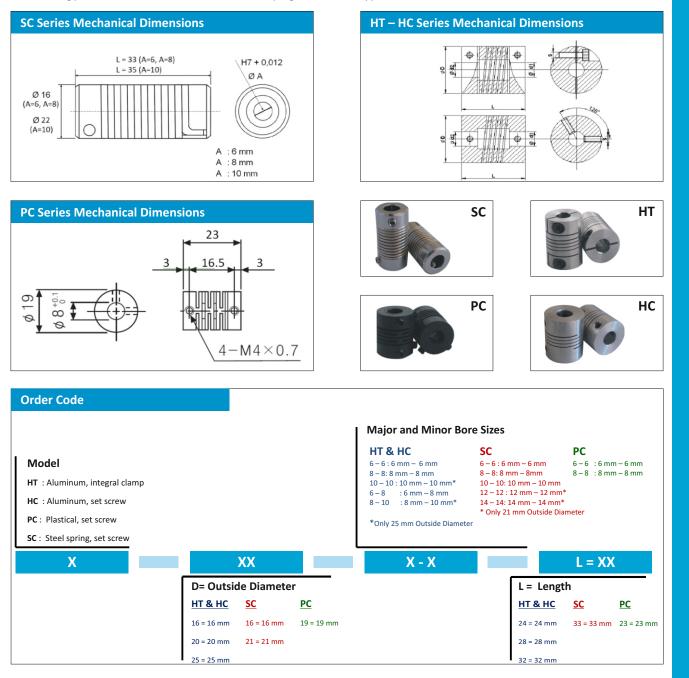
- Steel Spring, Aluminum alloy or Plastical material
- Different Body Types

SC SERIES : Steel Spring **Set Screw** HT SERIES : Aluminum **Integral Clamp** HC SERIES : Aluminum **Set Screw** PC SERIES : Plastical **Set Screw** 

- 6mm , 8mm and 10 mm bore diameter Optional between 3 mm to 18 mm
- High torque, long life
- One piece construction (Aluminum and plastical)
- Constant velocity transmission



This shaft coupling connects two shafts to transmit torque, motion etc. It is a coupling which can adjust itself to misalignment of two shafts connected by it. Misalignment may be angular, parallel or skew. When motion transmission is important, the misalignment should not affect the velocity & acceleration of the shaft. This calls for a torsion ally rigid, yet flexible coupling. This couplings offer you this advantages using special machining processes. Given in this leaflet are various couplings used in listed applications.



20

# DIGITAL READOUT SYSTEMS FOR UNIVERSAL MACHINES

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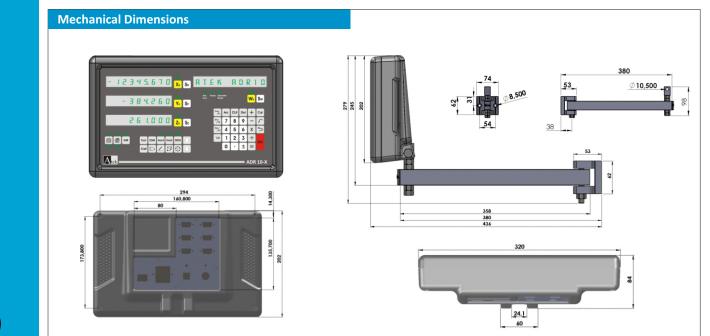


- Long Range Measurement
- Linear and Segmented Compensation
- Last Position Save
- Travel Limit Possible
- RS-232 Digital Output
- Tool Teach & Tool Storeroom
- Smooth & Simple Radius

2, 3 and 4 axes available ADR-10 Series Digital Readouts can meet the application in all machine tools with maximum performance and it includes features that are essential for increasing productivity. With high-capacity memory it is possible to save 1000 pcs program and for the lathes 1000 pcs tool memory. 5 different language choices are existed as Turkish, English, German, Spanish and Portuguese. Connection opportunity by touch probe is also available. With 8+1 digit display and standard resolution values with user designated resolution, ADR-10 is designed for your all requires.

# **Technical Specifications**

reclinical specifications	
Number Of Axis	2, 3, 4
Display	8 Digit +1 Sign Digit, Green, Touring (-) Sign
Disular Desclution	$0.1\mu\text{m},0.2\mu\text{m},0.5\mu\text{m},1\mu\text{m},5\mu\text{m},10\mu\text{m},25\mu\text{m}$
Display Resolution	Or User can designate as requested
	Available Push Pull or TTL
Input Signal	A,B,Z (Line Driver A, B, Z, /A, /B, /Z)
	Incremental Encoder Signals
Weight	2,7 Kg
Power Supply Voltage	85 – 265 VAC 50/60 Hz.
Storage Temperature	- 25 ~ 65 °C
Operation	-10 ~ 45 °C
Temperature	-10 45 C
Relative Humidity	%20 - %85
Dimensions (H×W×T)	202mm x 320mm x 84mm
Housing	Aluminum Injection Housing
Measuring Limits	- 99999,999 mm ~ 99999,999 mm



# ADR



- User Designated Resolution
- Angle Measuring
- Touch Probe Option
- 8+1 Digit Display
- 5 Language Options
- Aluminum Case

**Order Code** 

- High-Capacity Memory
- Tool Diameter Compensation

ADR 10 can be used for universal machines. User can select machine type in device menu. Milling, lathe, grinding, bohrwerk or spark erosion can be selected. User can change machine type any time. Angle measurement is possible on 4th (W) axis.

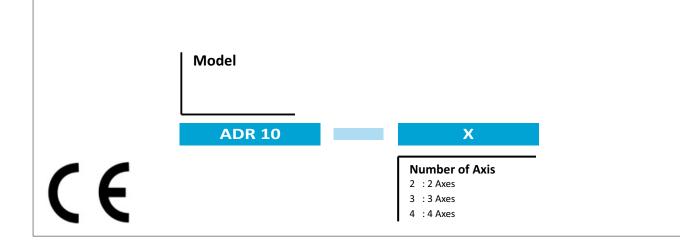


# DIGITAL READOUTS FOR UNIVERSAL MACHINES



## **Functions:**

- ABS / INC System
- Metric / Inch Measurement
- Axis Quick Zero Keys
- Bolt Hole Circle
- Shrink Function
- ½ Function
- Trigonometric Calculator
- Linear Error Compensation
- Segmented Error Compensation (100 Segments)
- Rectangular Pocket
- Centre Find
- Digital Filter Function
- Smooth Radius
- Simple Radius
- Bolt Hole Line
- Distance Measuring by Probe
- Part Angle Measuring
- Last 5 Digits On-Off
- Tool Diameter Compansation
- Linear Hole Patterns
- Inclined Z Axis Machining
- Taper Function
- Last Position Save
- Axis Addition
- Machine Reference Selection
- Tool Storeroom
- Tool Teach
- Datum Point Memory (1.000 Points)
- Travel Limit
- Coordinate Freeze (Hold)
- Value Addition / Subtraction
- Undo
- Pause / Sleep Mode



# ADR

# DRAW WIRE SENSORS DRAW WIRE ENCODER





- Maximum measurement length 10 metersHigh resolution options;
- 0,4 mm 0,2 mm 0,1 mm 0,05 mm 5 VDC or 10...30 VDC Power supply
- A, B, Z, /A, /B, /Z Encoder Signal Outputs
- High strength stainless steel wire
- 2 m/s maximum speed
- 2 m/s maximum speed
- Wide temperature range of -10 to +70 °C
- IP65 Protection class
- Shock/Vibration resistant
- 3 meters cable
- 2,4N Maximum extension force
- Aluminum anodized body

AWE series wire encoders are incremental wire transducers that turn a linear motion into coded digital pulses. They are made of an incremental encoder, activated by the stroke of a, winding or unwinding, stainless steel wire. A special feature is their easy assembling. The linking together to a display or an electronic positioner supplies an excellent system to measure the dimensions on machine tools, automatic, wood, marble, glassworking machinery etc.



# AWE



# DRAW WIRE SENSORS DRAW WIRE POTENTIOMETER

- Maximum measurement length 10 meters
- Potentiometric measuring Or 0...10 VDC output Or 4...20 mA output
- Maximum 42 V Power Supply
- High strength stainless steel wire
- 2 m/s maximum speed
- Wide temperature range of -10 to +70 °C
- IP54 Protection class
- Shock/Vibration resistant
- 3 meters cable
- 2,4N Maximum extension force
- Aluminum anodized body



The AWP series are draw wire potentiometric position transducers that turn a linear motion into a resistance variation. They are made of a precision rotating potentiometer operated by a, winding or unwinding, stainless steel wire. The potentiometer's output can be potentiometric, 0...10 VDC or 4...20 mA.



# AWP

# **OPTICAL LINEAR ENCODER SYSTEM OPTICAL MEASURING SCALE**





- Optical Incremental Encoder output A, B, Z
- 5 V TTL / RS422 Line Driver Output
- Two square wave signals. TTL output with 90 deg. phase difference
- Robust shielded metal enclosure
- Accuracy: ± 5 μm/m, ± 10 μm/m
- With single/double sealing technologies resistant to dirt, humidity and dust
- Compact design, easy mounting
- High Resolution: 0,001 mm, 0,005 mm
- High tolerance to shock and vibration
- Measuring lengths: 50 mm up to 12000 mm
- 60 m/min traversing speed
- Reference mark every 50 mm

ALS Series sealed Optic Linear Encoder Scales are protected from dust, chips and splash fluids and are ideal for operation on machine tools. Aluminum housing and elastic sealing lips protect the scale, scanning carriage and guide way from chips, swarf, dirt and splash water the scanning carriage travels in a low-friction guide within the scale unit.

It is connected to the external mounting block by a coupling that compensates unavoidable misalignment between the scale and the machine guide ways.

Sealed linear encoders are available with full-size scale housings for high resistance to vibration up to 12000 mm measuring length.

# **Special Design Features:**

Scale and scanning unit protected by aluminum housing Scanning unit guided on scale 5 via ball bearings Coupling between scanning unit and mounting block to

compensate small errors in machine guide way

Series	Measurement Strokes	Protecting
ALS-4	50 mm – 1000 mm	Single Sealing
ALS-5	50 mm – 1000 mm	Single Sealing
ALS-5	1100 mm – 12000 mm	Single Sealing

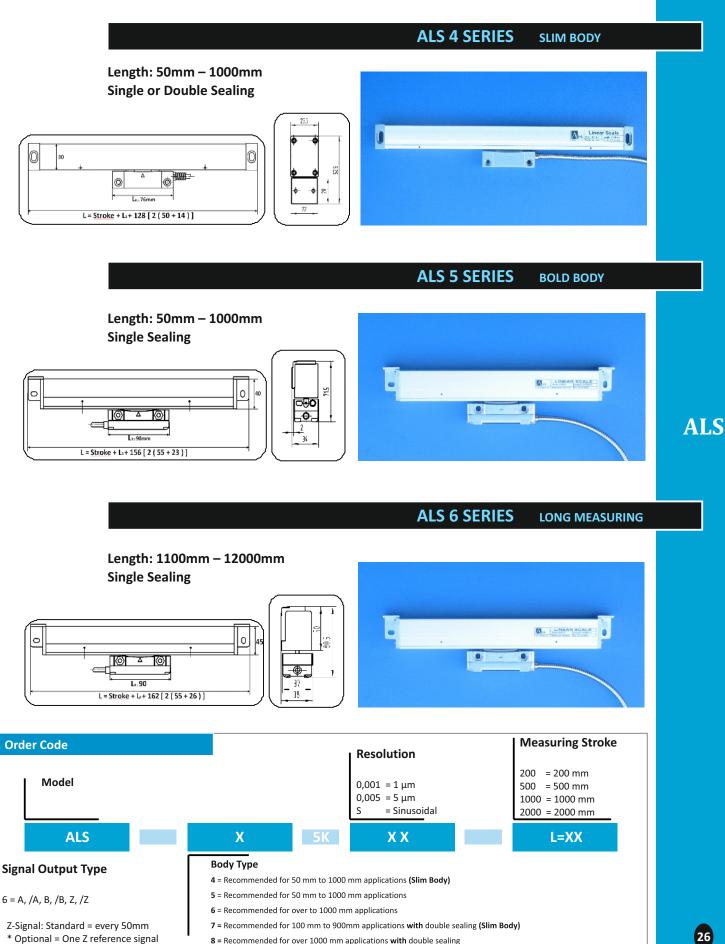
ALS TECHNICAL SPECIFICATIONS				
Output Circuit	TTL, RS422 Line Driver			
Measuring Standard	Glass			
Output signals	5VDC TTL Quadrature or 1Vpp Sinusoidal			
Output signals	TTL : A, /A, B, /B, Z,/Z			
Resolution	1 μm, 5 μm or 1 Vpp Sir	nusoidal		
Grating pitch / Signal period	20 μm			
Accuracy	± 10 μm			
Power supply	5VDC			
Dimensions	See drawing			
Housing Material	Aluminum			
Reference Mark	1 reference mark every 50 mm.			
Travel velocity	60 m/min			
Repeatability	±1 increment			
Operating temperature	0 to +50 ° C			
Storage temperature	- 40 to +55 ° C			
Protection Class	lp54			
Cable length	50-500 mm scale	3 m armored cable		
casic icligati	600-2000 mm scale	5 m armored cable		

Signal Name TTL	Sinus Voltage Signal	Open cable end Cable Colour	Conn. D-sub, (9 pin) Pin no.
А	0°	GREY	1
/В	180°	BROWN	2
+5VDC Power Supply	+5VDC Power Supply	RED	3
0 V - GND	0 V - GND	BLACK	4
/A	90°	BLUE	5
В	270°	GREEN	6
/Z	Z		7
Z	Vacant		8
Shield	Shield	-	9

# ALS



# **OPTICAL LINEAR ENCODER SYSTEM OPTICAL MEASURING SCALE**



8 = Recommended for over 1000 mm applications with double sealing

# CONTACTLESS SENSORS ROTARY CONTACTLESS SENSORS





# RCS3100

The contactless sensor utilizes the orientation of a magnetic field for the determination of the measurement angle. The magnetic field orientation is captured with an integrated circuit. An analogue output signal represents the calculated angle.



- Compact dimensions
- Non contacting measuring
- Very long life
- High accuracy
- Use in cramped installation conditions
- Low noise level on output signal
- Protection class Ip65

RCS Technical Specification			
Power Supply	5 VDC ±0,5V 24 VDC ±6V		
Output Signal	Ratiometric or 0,1 10 V or 420 mA		
Measuring Range	03 <b>0</b> , 0360 (10° steps)		
Shaft	Stainless Steel		
Housing	Aluminum		
Reverse Voltage	Yes, only feeder		
Maximum operational speed	120 min <sup>-1</sup>		
Cable Length	500 mm		
Temperature Range	-25 to +85°		
Protection Class	lp65		



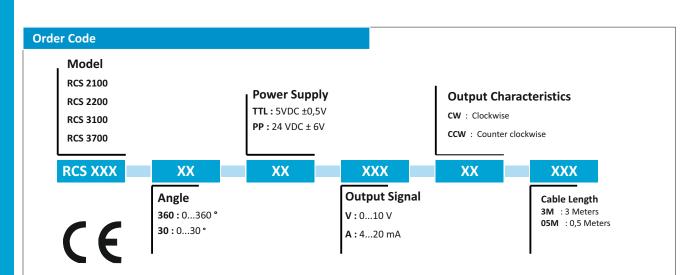
RCS2100





RCS2200

RCS3700



# RCS

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- Good Stability and Anti-Jamming compatibility
- Economical Price
- Zero and Span Adjustable
- Various Amplified Signals Optional 4 - 20 mA, 0 - 10V or 3.33mV/V
- Flexible Capillary or Rigid Stem
- Internal 80% Shunt Calibration
- Strain gage Wheatstone bridge
- Diaphragm is 15-5PH stainless steel with TiN coating 100bar-1500psi, our diaphragm is 316SS corrugated one

# **MPT** Technical Specifications

Pressure Range	0350 BAR or 0700 BAR standard ( optional 150 BAR to 2000 BAR )
Output Signals	0 -10 VDC , 4 -20mA , 3.33mV/V
Input Signal	24 VDC (10~36 VDC) and 10VDC
Operating Temperature	900°F - 400°C
Over Pressure	1,5 x FS
Accuracy	%FS 0,3
Electrical Connection	6-pin socket ( optional 5 pin or 8 pin )
Process Connection	½" -20 UNF-2A standard, ( optional M14 x 1.5 , M18 x 1.5 )
Case	Stainless Steel
Protection Class	IP 65
Thermocouple	J Type ( FeCu Ni ) or K Type ( NiCr-Ni ) with socket



MELT PRESSURE TRANSMITTERS RIGID / FLEXIBLE / THERMOCOUPLE

MPT series melt pressure transmitters, have been designed specifically for harsh and rugged environments of the extrusion and polymer processing industries.

Melt pressure transmitter convert process into an amplified signal for long distance transmission free of noise interference.

It can provide various 4-20mA, 0-10VDC and 3.33mV/V directly input upper control system.

MPT-112 RIGID BODY STEM

# MPT

<ul> <li>Rigid body stem</li> <li>Shunt calibration 80% FS</li> <li>Diaphragm 15-5 PH stainless steel with TIN coating</li> <li>Our diaphragm is 316S corrugated</li> <li>High diaphragm temp 320°C</li> </ul>	<ul> <li>The equipment of rubber plastic machine and etc</li> <li>Good stability &amp; interference resistance</li> <li>Between 100 BAR to 2000 BAR pressure range</li> <li>Anti jamming compatibility</li> <li>Zero and Span adjustable</li> <li>Various amplified signals <ul> <li>4-20 mA 0-10 VDC or 3,33 mV/V</li> </ul> </li> </ul>	
	MPT-133 FLEXIBLE BODY STEM	
Flexible body stem	The equipment of rubber plastic machine and etc	
• Shunt calibration 80% FS	Good stability & interference resistance	
• With "J" Type Thermocouple	Between 100 BAR to 2000 BAR pressure range	
• Diaphragm 15-5 PH stainless steel	Anti jamming compatibility	
with TIN coating	Zero and Span adjustable	
Our diaphragm is 316S corrugated	Various amplified signals	
<ul> <li>High diaphragm temp 500c°</li> </ul>	4-20 mA 0-10 VDC or 3,33 mV/V	
	<b>TT</b> THERMOCOUPLE TRANSDUCER	
	Good shock resistant	
Customized design	High pressure endurable	
Our diaphragm is 316S corrugated	Good stability	
Temperature measurement ranges	High accuracy	
-50°C1200°C	Various of manners of installation	
	• Thermocouple Type:K, E, J	
	Flexible body stem	28

# TILT AND ANGLE SENSORS **INCLINOMETER**







# PROCESS CONTROL DEVICES UNIVERSAL MULTI-FUNCTIONAL INSTRUMENTS



# **EPA SERIES GENERAL PROPERTIES**

- 4 different analog input functions in one device
- RS-232, RS-485, USB or CANopen communication
- 2 or 4 relay outputs, adjustable in different functions
- High sampling rate: 3.5 kHz
- Converting analog signals (4-20 mA, 0-10 V, potentiometric, ratiometric to CANopen signals, CANopen signals to analog.
- Reversible analog output (10-0 V, 20-0mA)
- Fast and multi-parameter configuration via USB
- Compact design
- Easy and user friendly interface
- Tare function
- Menu hiding or password protection
- Multicolor LED bar graph on EPA300
- 3 analog outputs on one single device, EPA300

# **Technical Properties**

Supply Voltage	24 V <sub>AC/DC</sub> 50/60 Hz 85-265 V <sub>AC</sub> 50/60 Hz
Power usage	9 VA / 2,7 Watt Maksimum
Sensor Supply Voltage	<u>Pot</u> : 5 V <sub>DC</sub> <u>3,33 mV/V</u> : 10 V <sub>DC</sub> <u>0-10V</u> : 24 V <sub>DC</sub> <u>4-20 mA</u> : 24 V <sub>DC</sub> <u>CANo pen</u> : 24 V <sub>DC</sub>
Max Sensor Supply Current	100 mA
Refresh Rate	3.5 kHz
Resolution	16 bit
Analogue Inputs	Potentiometric , 0-10 V, 4-20 mA 3,33 mV/V Ratiometric
Relay Outputs	4 Adet 250 $V_{AC}$ 3A (Resistive Load) Relay
Serial Communication (Optional)	RS-232, RS-485, USB, CANopen
Analogue Outputs (Optional)	0-10 V, 4-20 mA, 0-20 mA
Electrical Connection	2,5 mm <sup>2</sup> Universal Terminal
Weight	220 gr
Operating Temperature	0 ile 50 °C
Protection Class	IP60 Front Panel, IP20 Back Panel



# erkon EPA 100 F C C C S1 PRG ESC C A

EPA100

• Free custom MyPanelMeter program developed by our engineers for easy configuration via computer on USB connection

• All Eskon products are %100 designed and manufactured completely in Turkey, with years of engineering of Eskon Research and Development team. Eskon is ATEK Sensor's subbrand for process control devices.

# EPA

# PROCESS CONTROL DEVICES COUNTING INSTRUMENTS





• 600 Khz High Speed Input Frequency

- 4 Digit programmable projection ALC44
- 6 Digit programmable projection ALC94
- 7 Digit programmable projection ALC77 Series
- Prescale can be adjustable
   (0,000001 to 9999999)
- Tare, Hold, Reset, Offset, Const, Functions
- Excitation

The ALC Series universal programmable impulse counter of signals from Linear Encoder, Rotary Encoder sensors, NPN -PNP proximity sensors, mechanical switches.

This secures high accuracy, stability and easy operation of the instrument.

Model	Dimensions	Projection	Input Type
ALC44 Counter	44 x 44 mm	-9999999	Linear or Rotary Encoder, NPN – PNP Proximity
ALC77 Counter	72 x 72 mm	-999999999999999	Linear or Rotary Encoder, NPN – PNP Proximity
ALC94 Counter	96 x 48 mm	-9999999999999	T Linear or Rotary Encoder, NPN – PNP Proximity
ALC77B Batch Counter	72 x 72 mm	-99999999999999	Linear or Rotary Encoder, NPN – PNP Proximity
ALC77T Tachometer	72 x 72 mm	-999999999999999	Linear or Rotary Encoder, NPN – PNP Proximity

# ALC

# ALC44 / ALC77 / ALC94 SERIES UP/DOWN COUNTERS



- Linear Encoder Inputs (A, B, Z Inputs)
- Two Measuring channels (A, B)
- Measured Unit
  - Linear Encoder
  - Rotary Encoder
  - NPN PNP Proximity / Mechanical switch
- 2 and 4 relay outputs
- Tare, Hold, Reset, Offset , Const Functions
- Power Supply 24VA/VDC or 86 265 VAC (110 or 220VAC) Selectable Input (Encoder, Tachometers, Batch Counters)

# ALC77 SERIES OTHER COUNTER MODELS



# ALC77 B BATCH COUNTER ALC77 T TACHOMETER

- 72 x 72 x 96,4mm mechanical dimensions
- Projection range "-999999...9999999"
- Sensor Input (A, B)
- Measured Unit
  - NPN PNP Proximity / Mechanical switch
- ALC77B : Input Frequency 500 Hz ALC77T : Input Frequency 5 Khz
- Power Supply 24VA/VDC or 86 265 VAC ( 110 or 220VAC



# PROCESS CONTROL DEVICES POTENTIOMETRIC AND ANALOG INPUT PROCESS INSTRUMENTS

- 4 Digit programmable projection ALP44, ALP77
- 6 Digit programmable projection ALP94
- Tare Function
- Automatic Calibration
- Excitation
- Analog Outputs
- High sampling rate



Model	Dimensions	Projection	Input Type
ALP44 P	44 x 44 mm	-9999999	Potentiometric
ALP77 V	44 x 44 mm	-9999999	010VDC Analog
ALP94 A	44 x 44 mm	-9999999	0 / 420mA Analog
ALP77 P	72 x 72 mm	-9999999	Potentiometric
ALP77 V	72 x 72 mm	-9999999	010VDC Analog
ALP77 A	72 x 72 mm	-999999999999999	0 / 420mA Analog
ALP94 UNI Multifunction	96 x 96 mm	-999999999999999	Potentiometric and Analog 010VDC
mananetion			0 / 420mA

ALP Series Instruments, 4 digits panel programmable measuring displacement and angle by means of linear potentiometers.

**ALP-V Series** Measuring instruments for 0...10VDC voltage.

ALP-A Series Measuring instruments for 0/4...20mA current.

ALP94UNI Instruments, 6 digits panel programmable Multifunction measuring instruments with the option of configuring the type of various analog inputs.

ALP

# ALP44 and ALP77 SERIES MEASURING INSTRUMENTS

- ALP 44 : 48 x 48 x 96,4 mm Dimensions ALP 77 : 72 x 72 x 96,4 mm Dimensions
- Measured Unit ALP Linear Potentiometer ALP-V Range 0..10 VDC ALP-A Range 0...20 mA / 4..20 mA
   Output 2 relay
- Output 2 relay
- Projection range -999...9999
- Power Supply 24VAC , 220VAC , 24 VDC
- Sensor Supply voltage

# ALP44-L SERIES PROCESS DISPLAY



- 48 x 48 x 96,4 mm dimensions
- Potentiometric or Analog Input 4-20mA or 0-10VDCC
- Projection range -999...9999
- Power Supply 24VAC/VDC or 86 265 VAC
- Cost Effective



# ALP94-UNI

MULTIFUNCTIONAL



- 96 x 48 mm Dimensions
- Multifunction Inputs in one instruments
  - Linear Potentiometer
  - Voltage 0..10 VDC
- Current 0...20 mA / 4..20 mA
- Standard 3 Relay ( Optional 4 relay )
- Projection range -999999...999999
- Analog Out 0-10VDC or 4-20mA
- Data Output Rs232
- Power Supply 24VAC, 110 VAC, 220VAC, 24 VDC

# INDUSTRIAL PRESSURE TRANSMITTERS PIEZORESISTIVE





- Pressure ranges -1...0 bar to 600 bar
- Standard ranges available from stock
- Excellent resistance to corrosive
- Stainless steel case
- EMC and reverse polarity protection
- Output Signals 4 20 mA and 0 10 V or others

The pressure transmitters BCT/BT are used to measure pressure in liquid or gaseous media, in the hydraulics, pneumatics, in machinery and equipment, as well as the process technology.

The stainless steel membrane is completely vacuum-tight, extremely burst-proof, water-proof can be used with all standard media. High accuracy and robust and compact structure guarantees a broad range of possible applications.

Different socket connection options and cable connection are available.

Technical Specifications	
Pressure Range	50 mbar to 600 bar
Output Signal	420mA (2 Wires), 010VDC (3 Wires)
Mechanical Connection	G1, G1/2, G1/4
Power Supply	+1230 VDC
Accuracy	%0,5
Protection Class	IP65
Operating Temperature	-40°C to +85°C
Media Temperature	-40°C to +125°C
Housing Material	Stainless steel
Weight	140 grams

# BCT

# BCT 110 PIEZORESISTIVE PRESSURE SENSOR





"Standard Diaphragm / Industrial Applications"

- Piezoresistive pressure sensor
- Relative pressure measurement
- Industry and Sanitary Applications
- Stainless steel case and wetted parts
- EMC and Reverse polarity protection
- Analog output 4...20mA or 0...10VDC
- High Sensitivity
- M12 Socket

Applications

► Hydraulics ► Pneumatics ► Water Technologies ► Air Conditioning / Heating

► Air Conditioning / Heating ► Testing Technology ► Process Control

# BCT 210 PIEZORESISTIVE PRESSURE SENSOR





- Piezoresistive pressure sensor
- High sensivity
- 22 mm Body Diameter
- Standard diaphragm
- Stainless steel case
- EMC and reverse polarity protection
- Analog output: 4...20mA or 0...10VDC
- 100 mbar to 600 bar

Applications



# INDUSTRIAL PRESSURE TRANSMITTERS BCT 22 VERY COMPACT PIEZORESISTIVE SENSOR





# **BCT 22 Applications**

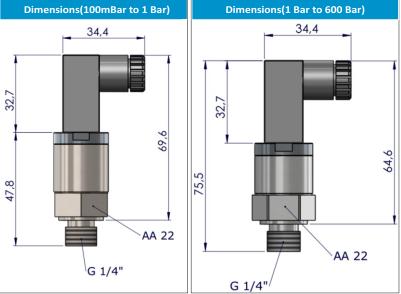
- Pneumatic Systems
- Hydraulic Systems
- Machines Equipments
- Air Cooling Systems
- Heating Systems

(

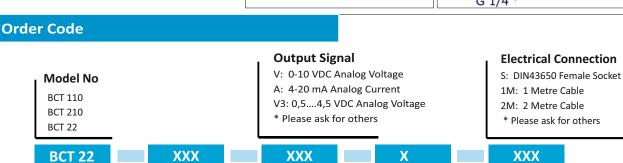
- Water Technologies
- Automation Applications

- Piezoresistive pressure sensor
- Very small and compact design
- High sensivity
- 22 mm body diameter
- Stainless steel case
- EMC and reverse polarity protection
  - Analog output: 4...20mA or 0...10VDC

Technical Specifications	
Pressure Range	50 mbar to 600 bar
Output Signal	420mA (2 Wires), 010VDC (3 Wires)
Mechanical Connection	G1, G1/2, G1/4
Power Supply	+1230 VDC
Accuracy	%0,5
Protection Class	IP65
Operating Temperature	-40°C to +85°C
Media Temperature	-40°C to +125°C
Housing Material	Stainless steel
Weight	140 grams



BCT22



Pressure

16B: 16 Bar

600B: 600 Bar

100mB: 100 Milibar

\* Between 100 milibar to 600 Bar

# Mechanical Connection

G1/4: G1/4 Connection G1: G1 Connection G1/2: G1/2 Connection \* Please ask for other mechanical connections

# INDUSTRIAL PRESSURE TRANSMITTERS DIFFERENTIAL PIEZORESISTIVE / FLUSH DIAPHRAGM





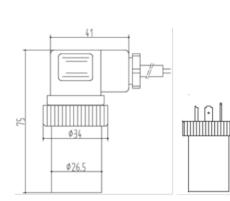
Technical Specifications	
Pressure Range	100 mbar to 600 bar
Output Signal	420mA (2 Wires), 010VDC (3 Wires)
Mechanical Connection	G1, G1/2, G1/4
Power Supply	+1230 VDC
Accuracy	%0,5 @25°C
Protection Class	IP65
Operating Temperature	-40°C to +85°C
Media Temperature	-40°C to +120°C
Housing Material	Stainless steel
Weight	140 grams

BFT series are used for measuring any pressure difference between its two pressure ports and outputs a single value as differential.

BT series are used for food and chemical industry, where special flush diaphragms are used to prevent accumulation of pressurized material in various areas such as tanks, pipes etc.

# BFT 210 PIEZORESISTIVE DIFFERENTIAL PRESSURE SENSOR



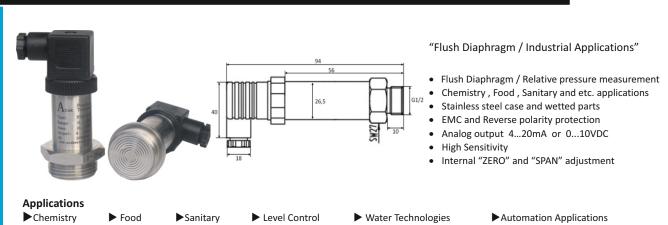


- MEMS based piezoresistive silicon sensor
- Perfect long term stability
- EMC and reverse polarity protection
- Analog output 4...20mA or 0...5V<sub>DC</sub>
- High accuracy: %0,5 FS
- Same day delivery from stock
- CE Certificate
- Measuring range from 1 mBar to 25 Bar

# Applications

Used for measuring the pressure difference between two pressure ports

# BT 214 FLUSH DIAPHRAGM



# BFT BT

# 35



# INDUSTRIAL PRESSURE TRANSMITTERS HYDROSTATIC LIQUID AND AIR COMPRESSOR APPLICATIONS

- Pressure Ranges -1...0 BAR to 600 BAR
- Standard ranges available from stock
- EMC and Reverse polarity protection
- Stainless Steel Case
- Economical Price
- Output Signals 4 20 mA and 0 5V or other



# **PTC 20 Series Technical Specifications**

Pressure Range	Relative pressure measurement From 1 BAR to 100 BAR different ranges	
Output	420mA (2 Wire), 05VDC (3 Wire)	
Pressure Connection	G1/4" male	
<b>Electrical Connection</b>	Packard Connector	
Power Supply	24VDC	
Accuracy	%1 @ +25°C	
Protection Class	IP65	
Media Temperature	-40°C to +80°C	
Housing Material	Stainless steel (304L)	
Weight	60 grams	

# **PTL Technical Specifications**

Pressure Range	Between 50 Milibar to 25 Bar
Output	420mA ( 2 Wires ) 010 VDC (3 Wires )
Overpressure	200%FS
Power Supply	+1230 VDC
Precision	%0,25
Protection Class	IP68
Housing Material	Stainless Steel ( 304L )
Weight	350 grams

# **PTL** HYDROSTATIC LIQUID LEVEL MEASUREMENT

- Piezoresistive Silicon Chip Employed
- Level measuring between 1 meter to 200 meters
- EMC and Reverse polarity protection
- Non-aggressive Media Application
- Analog output 4-20 mA
- Cable Ventilated
- Excellent long term stability
- Cost Effective



# Applications

► Hydras

► Reservoirs ► Lakers

► Rivers ► Sewage ► Treatment ►

Water Tank

# PTC AIR COMPRESSOR APPLICATIONS

- Standard Diaphragm
- Relative Pressure measurement
- Air Compressor Applications
- EMC and Reverse polarity protection
- Analog output 4-20 mA or 0...5V DC
- Standard ranges available from stock
   From 1 BAR to 100 BAR
- Cost Effective

Applications

► Air Compressor

► Cooling Units

► Test Equipments

36

PTL

**PTC** 



ATEK Electronics Sensor Technologies Inc. has certainly been the market leader for position control sensors and measuring devices industries in Turkey since its establishment in 2002.

All of our sensors which are now well being used in Turkey and more than 60 countries throughout the entire world, for measuring linear and circular movements of various kinds of machinery; such as linear transducers, non-contacting magnetic encoders, rotary sensors, draw wire sensors, optical linear scales, digital readout systems, tilt sensors, pressure transmitters and potentiometers are completely hassle-free, long-lasting and of outstanding quality.



Our wide product range allows us to always find the optimal customized solutions for our customers in various industries with different applications for measuring, such as plastic injection machinery, iron and steel machinery, packaging machinery, wood marble and glassworking machinery, bending machinery as press brakes, textile machinery, hydraulics, robotics etc.

Cooperation between our skilled sales team and advanced engineering team, allows us to do all electronical and mechanical design and manufacturing in our high-tech facility in Turkey; and deliver our state of the art products to beloved customers and partners in very short times. We are well prepared and excitingly interested in building long-term relationships with our partners and providing the best solutions for them.

ATEK Sensor Techonologies; your ultimate solution partner for your automation applications!



Atek Sensor Technology Incorporation's 3000 m<sup>2</sup> high-tech facility located in Istanbul, Turkey



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# POTENTIOMETRIC LINEAR SCALES

# **INNOVATIVE SOLUTIONS FROM ATEK SENSOR**



# **SPECIAL FEATURES**

- Laser Trimming System
- Silver Plated PCB
- Outstanding Linearity
- High Accuracy
- ► Very Long Life: 100 Million Movements
- Vibration Absorbing System

# **APPLICATIONS**

- Automation Applications
- Plastic Enjection Machines
- Press Brake Machines
- Bending Machines
- Sheet Metal Working Machines
- Profile Cutting Machines



etc...



# **GROWING GLOBALLY** Atek

Atek Sensor Technology Inc. Tuzla KOSB Organize Sanayi Bolgesi, Melek Aras Bulvari No:67 TR-34956 Tuzla / Istanbul - TURKEY Fax: +90 216 399 44 02 **Tel:** +90 216 399 44 04

# ULTIMATE MEASUREMENT SOLUTIONS

www.ateksensor.com

info@ateksensor.com