

ALTON



**Pressure Transmitter
KPT/EPT 20,30,50**

Peressure Transmitter KPT/EPT 20.30.50

Peressure Transmitter

Overview

- Pressure range from 100 .. 0 mbar up to 600 .. 0 bar
- Vacuum range 1- .. 0
- Absolute and relative (Gauge) pressure
- 2 wire 20 .. 4 ma or 3 wire 10 ..0 VDC (other on request)
- Fast response < 1 msec
- Accuracy %0.5 Full Scale
- Various process connection
- Various electrical connection
- Customer specific versions
- 1 year warranty

Application

- Water and wastewater
- Energy Industries
- Hydraulics and Pneumatics
- Machine building
- Measurement and control technology
- Pumps and compressors



Description

Alton KPT/ EPT family pressure transmitters are reliable instruments for pressure measurement in industrial environments. With compact design and high quality manufacturing, they can be integrated into a wide range of machine designs and process automation applications. The many measuring ranges, and various process and electrical connections, contribute to their universal applicability. The processing of the sensor signal is done by newly developed digital electronics and sensor specific deviations such as non-linearity, hysteresis and temperature errors are compensated actively. Alton products are particularly cost-efficient and offer very good performance, matched to the majority of applications in terms of precision and robustness. The high reliability and long service life ensure low maintenance and replacement costs.



Description

Family series	Pressure range	Measured Value	Process connection	Power	Output signal	Electrical Connection
KPT 30 EPT 30	0 .. -1 bar	Relative (Gauge) Pressure	G1/4" male Seal: DIN3852, DIN 3869, EN837	9 .. 36 VDC	4 .. 20 ma	Hirschmann EN175301
	-1 .. 0 bar			5 VDC	0 .. 10 VDC	Round plug M12x1 5pin
	-1 .. 12 bar					
	0 .. 100 mbar		G 1/4" female			
	0 .. 250 mbar					
	0 .. 600 mbar					
	3 .. 15 Psi		G1/2" male Seal: DIN3852, DIN 3869	Digital output: RS485 Mod-bus-RTU	Packard metri pack	
KPT 20 EPT 20	0 .. 1	Relative (Gauge) Pressure	5 VDC			0 .. 10 VDC
0 .. 2.5						
0 .. 4						
0 .. 6						
0 .. 10						
0 .. 16						
0 .. 25						
0 .. 40						
0 .. 60						
0 .. 100						
0 .. 160						
0 .. 250						
0 .. 400						
0 .. 600						
KPT 50 EPT 50	0 .. 1	Absolute Pressure	1/4" NPT male	Other is possible by order	Other is possible by order	Round plug DIN72585 ISO15170
	0 .. 2		1/2" NPT male			
	0 .. 6		1/4" NPT female			
	0 .. 10		"7/16			
	0 .. 16		20UNF female with valve opener			
	0 .. 25		Other is possible by order			



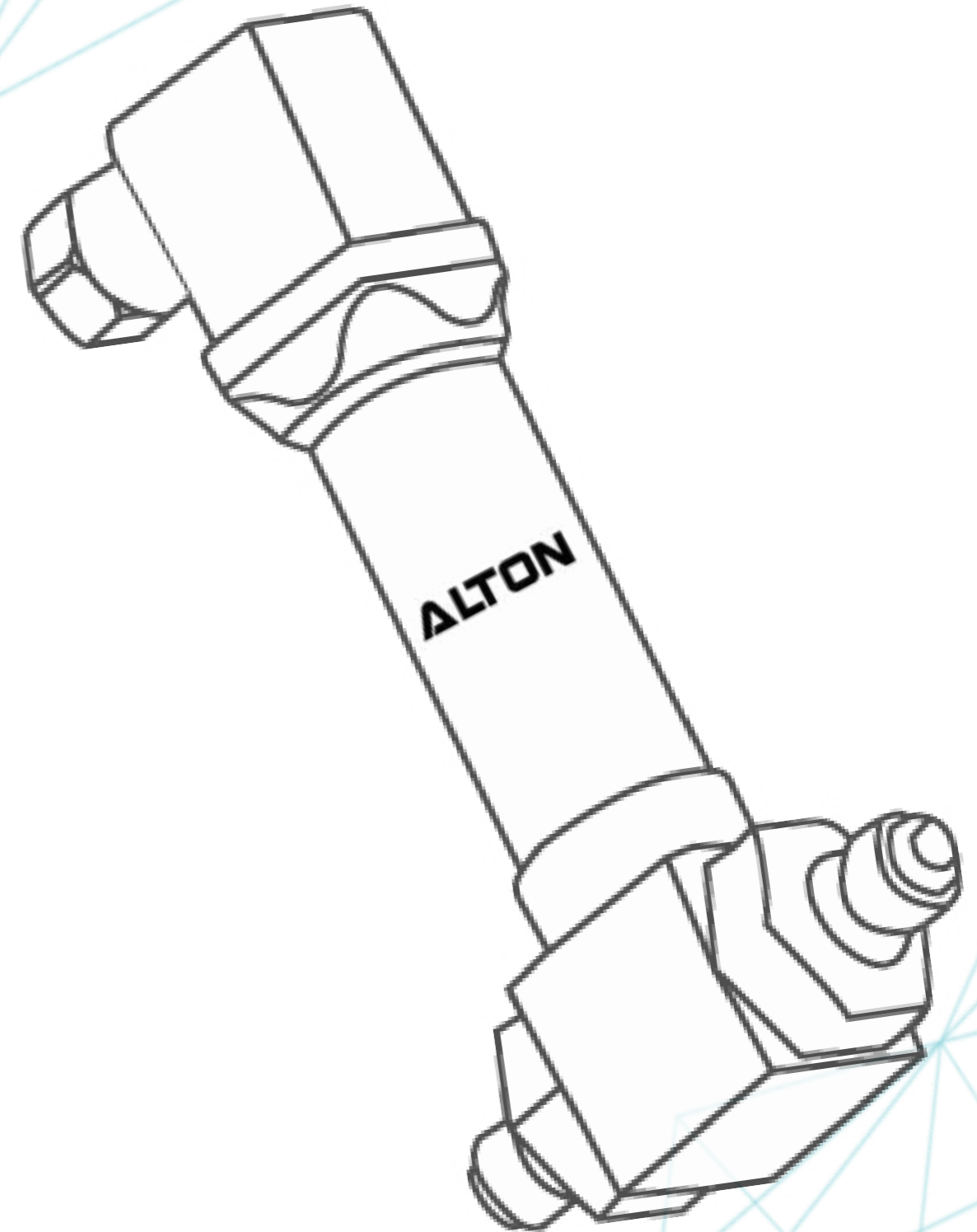
General technical specifications

General technical specifications

Accuracy Specification	Accuracy	0.5 %FS	% FS = % of the measuring range (full scale)	
	Repetition accuracy	0.1 %FS		
Electrical Specification	Operating voltage range	9 ... 36 VDC	Output signal 4 ... 20 mA	
			Output signal 0 ... 10 VDC	
	VDC	5VDC +/- 10%	Output signal 0 ... 5 VDC	
			Output signal 1 ... 5 VDC	
Reverse polarity protection	Protected	For operating voltage		
Mechanical Specification	Housing material	SS 316L	For KPT types	
		SS 304	For EPT types	
	Seal material	FKM (Viton)		
	Sensor material	SS316L		
Note on materials	RoHS-compliant			
Certifications	CE marking	To EU EMC Directive		
	EMC protection	2014/30/EU		
	Ingress Protection (IP)	IP 65	Electrical connection: Hirschmann EN175301	
		IP 67	Electrical connection: Direct Cable	
			Electrical connection: Packard metri pack	
IP 68		Electrical connection: Round plug M12x1 5pin		
IP 69K	Electrical connection: Round plug DIN72585 ISO15170			



Family series	Measured Value	Pressure measuring range			Over-load pressure	Burst Pressure	Operating medium	Temperature	
		Start value	End value	Unit				Medium [°C]	Ambient [°C]
KPT 30 EPT 30	Relative	0	-1	bar	2 bar	5 bar	Water, Oil and Compressed air to ISO 8573-1:2010 [-:-:-] For other mediums; KPT: Liquid and Gaseous compatible with SS316L EPT: Liquid and Gaseous compatible with SS304	-20 .. 120°C	-20 .. 80°C
		-1	0	bar	2 bar	5 bar			
		-1	12	bar	2 bar				
		0	100	mbar	0.75 bar	1.5 bar			
		0	250	mbar	1.8 bar	3.6 bar			
		0	600	mbar	2 bar	4 bar			
		0.2	1	bar	2 bar	5 bar			
KPT 20 EPT 20	Relative	0	1	bar	2 bar	5 bar			
		0	2.5	bar	5 bar	12 bar			
		0	4	bar	8 bar	20 bar			
		0	6	bar	12 bar	30 bar			
		0	10	bar	20 bar	50 bar			
		0	16	bar	32 bar	80 bar			
		0	25	bar	50 bar	125 bar			
		0	40	bar	80 bar	160 bar			
		0	60	bar	120 bar	240 bar			
		0	100	bar	200 bar	400 bar			
		0	160	bar	320 bar	640 bar			
		0	250	bar	375 bar	1000 bar			
KPT 50 EPT 50	Absolute Pressure	0	1	Abar	2 Abar	5 Abar			
		0	2	Abar	4 Abar	10 Abar			
		0	6	Abar	12 Abar	20 Abar			
		0	10	Abar	20 Abar	30 Abar			
		0	16	Abar	32 Abar	50 Abar			
		0	25	Abar	50 Abar	80 Abar			



Output Signal

Signal type	Current (2-wire)	4 ... 20 mA
	Voltage (3-wire)	0 ... 10 VDC
		0 ... 5 VDC
		1 ... 5 VDC
	0.5 ... 4.5 VDC	
Load Ω	Current (2-wire)	$\leq (\text{auxiliary power} - 8 \text{ V}) / 0.02 \text{ A}$
	Voltage (3-wire)	$> \text{Maximum output signal} / 1 \text{ mA}$
Voltage supply	Output signal 4 ... 20 mA	9 ... 36 VDC
	Output signal 0 ... 10 VDC	9 ... 36 VDC
	Output signal 0 ... 5 VDC	9 ... 36 VDC
	Output signal 1 ... 5 VDC	9 ... 36 VDC
	Output signal 0.5 ... 4.5 VDC	5VDC +/- 10%



Output Signal

Process connection				
Code	Process connection	Connection standard	Seal Standard	Seal material
MG41	G1/4" male	DIN EN ISO 1179-2	DIN 3852	FKM (Viton)
MG42			DIN 3869	
MG43		EN837		
FG41	G 1/4" female			
MG21	G1/2" male	DIN EN ISO 1179-2	DIN 3852	FKM (Viton)
MG22			DIN 3869	
MN41	1/4" NPT male	ANSI/ASME B1.201		
MN21	1/2" NPT male			
FN41	1/4" NPT female			
M716	7/16" - 20UNF female with valve opener	SAE J514		



Electrical connections

Code	Process connection	IP	Schematic		Current output (2 wire)	I / V Output (3 wire)	Digital output (Mod- bus-RTU)
D	Hirschmann EN175301	IP65		1	I+	U+ (Supply)	X
				2	I-	U- (Ground)	
				3	X	Analog Signal	
				4	Earth	Earth	
M	Round plug M12x1 5 pin	IP68		1	I+	U+ (Supply)	U+ (Supply)
				2	X	Analog Signal	A (+)
				3	I-	U- (Ground)	U- (Ground)
				4	Earth	Earth	B (-)
				5	X	X	Earth
C	Direct Cable	IP67		R	I+	U+ (Supply)	U+ (Supply)
				BK	I-	Analog Signal	A (+)
				BL	X	U- (Ground)	U- (Ground)
				BR	X	X	B (-)
				----	Earth	Earth	Earth
P	Packard metri pack	IP67		1	I+	U+ (Supply)	X
				2	I-	U- (Ground)	
				3	Earth	Analog Signal	
R	Round plug DIN72585 ISO15170	IP69K		1	I+	U+ (Supply)	U+ (Supply)
				2	X	Analog Signal	A (+)
				3	Earth	Earth	B (-)
				4	I-	U- (Ground)	U- (Ground)



Typecodes






Order code sample		KPT	20	D	-	010
Housing and Process connection material	Stainless Steel 316-L	KPT				
	Stainless Steel 304	EPT				
Measuring Type	Relative pressure ranges		20			
	Vacuum, mbar and +/- relative pressure ranges		30			
	Absolute Pressure ranges		50			
Electrical Connection	Hirschmann EN175301			D		
	Round plug M12x1 5 pin			M		
	Direct Cable			C		
	Packard metri pack			P		
	Round plug DIN72585 ISO15170			R		
Pressure Range	0 .. -1 bar					0V1
	-1 .. 0 bar					V10
	-1 .. 12 bar					V12
	0 .. 100 mbar					.10
	0 .. 250 mbar					.25
	0 .. 600 mbar					.60
	3 .. 15 Psi					315
	0 .. 1					001
	0 .. 2.5					2.5
	0 .. 4					004
	0 .. 6					006
	0 .. 10					010
	0 .. 16					016
	0 .. 25					025
	0 .. 40					040
	0 .. 60					060
	0 .. 100					100
	0 .. 160					160
	0 .. 250					250
	0 .. 400					400
	0 .. 600					600
	0 .. 1					A01
	0 .. 2					A02
	0 .. 6					A06
	0 .. 10					A10
0 .. 16					A16	
0 .. 25					A25	

	- C1	- MG4	+ N
Output Signal	4 .. 20 ma	C1	
	0 .. 10 VDC	V1	
	0.5 .. 4.5 VDC	V2	
Process Connection	G1/4" male - Seal: DIN 3852, DIN 3869, EN837	MG4	
	G 1/4" female	FG4	
	G1/2" male - Seal: DIN3852, DIN 3869	MG2	
	1/4"NPT male	MN4	
	1/2" NPT male	MN2	
	1/4" NPT female	FN2	
Options	7/16" - 20UNF female with valve opener	716	
	RS485 - Modbus RTU		N4
	Cooling Element		CL
	Top Mount Indicator		LD




Accessories


Electrical connection accessories				
Shape	Name	Length	IP	Order Code
	Female M12x1 4 Pin Straight socket Open end	1 m	IP 68	KEA-MF-STR-100
		2.5 m		KEA-MF-STR-250
		5 m		KEA-MF-STR-500
	Female M12x1 4 Pin Angled socket Open end	1 m	IP 68	KEA-MF-ANG-100
		2.5 m		KEA-MF-ANG-250
		5 m		KEA-MF-ANG-500
Shape	Name	Pin #	IP	Order Code
	Female Hirschmann EN175301 for cable connection	2+1	IP 65	KEA-DF-67W-BL
		3+1	IP 67	KEA-DF-PG9-BL
Mechanical connection accessories				
Shape	Name	Dimension	Order Code	
	Pressure peak damping element Orifice diameter: 0.5mm		KMA-PD-0.5	
	Siphons For protection pressure transmitter against hot pressure media such as steam and also to reduce the effect of rapid pressure surges		KMA-SP-***	
	Pressure Snubber For protection pressure transmitters against sudden pressure increase or fluctuations		KMA-SB-***	

Digital indicators				
Shape	Name	Technical specification	Order Code	
	Head mount indicator for current output transmitters with Hirschman EN175301 connector	In: 4..20 ma Power loop Out: 4..20ma 2x Digital out NPN	KUIH-L-T1-C1AL	
	Panel mount indicator KUIS: 48x48x80mm KUIR: 96x48x80mm Supply power: A: 90..256 vac With Aux 24VDC-30ma D: 18 .. 30 VDC Input signal: T2: 4..20ma, 0..10VDC, 0..75mv T3: T2+ Thermocouple, RTD Output signal: C1: 4..20ma R: Relay output N4: RS485 modbus-rtu (master)	Current output Aux 24VDC - 30ma	KUIS-A-T2-C124	
		Current output 2x Relay output Aux 24VDC - 30ma	KUIS-A-T2-C1RR24	
		Current output Aux 24VDC - 30ma	KUIR-A-T2-C124	
		Current output 2x Relay output Aux 24VDC - 30ma	KUIR-A-T2-C1RR24	
		Current output 2x Relay output Aux 24VDC - 30ma	KUIR-D-T3-C1RRN4	
		Current output 2x Relay output RS485 modbus-rtu (master) KUIR-A-T3-C1RR24N4	KUIR-A-T-3C1RR24N4	
Data Loggers				
Shape	Name	Interface	Order Code	
	Data logger Power: 9 .. 28 VDC Input: 4 Analog , 2 Digital Protocols: Modbus-TCP, MQTT, HTTP post	GSM	KLOG-2AI2DIS-G	
		GPRS	Modbus-RTU (master)	KLOG-2AI2DIN4S-G
Power Supplies				
Shape	Name	Output	Order Code	
	Power supply Input: 100..240 vac Short circuit protected Overload protected	2.5 A 60 W	KEA-DF-67W-BL	
		5 A 120 W	KEA-DF-PG9-BL	

The logo for ALTON, featuring the word "ALTON" in a bold, teal, sans-serif font. The logo is centered within a white, downward-pointing arrow shape that is set against a teal background. The background of the entire page is teal, with a white geometric pattern of thin lines forming a network of triangles in the upper portion.

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