

LOW PRESSURE INDUSTRIAL PRESSURE TRANSMITTER



TC1 with Hirschmann



Diaphragm Seal
Compatible

FEATURES / BENEFITS

- 0.3% Accuracy
- Measuring Ranges from 100 mbar
- 4-20 mA or Voltage Output
- Rugged, with Protection from Shock, Over-Range, and Over-Voltage
- Excellent Long-Term Stability

SPECIFICATIONS

Output Signal -20mA, 2-Wire (Standard)
0-5V, 0-10V, 1-6V (3-Wire)
Additional Outputs Upon Request

Measuring Principle Thick-Film-on-Ceramic

Pressure Ranges Vacuum, Compound, Absolute, Pressure to 500psi

	Proof Pressure	Burst Pressure
0/1.5 - 0/5 psi	3 x range	6 x range
0/10 - 0/500 psi	2 x range	2.5 x range

Accuracy NLH at 77°F (BSL) ±0.3% of span

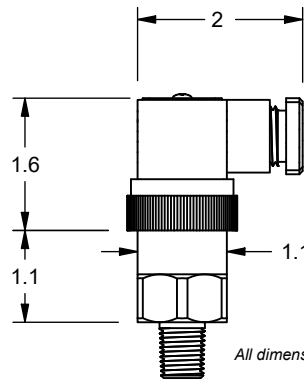
Input 9-30 Vdc (4-20mA)
10-30 Vdc (0-5V, 1-6V)
15-30 Vdc (0-10V)

Temperature Effect: ±0.01% FS/°F (-13/185°F)
Media: -13 to 257°F
Ambient: -13 to 257°F

Weight Approximately 3.88 oz

Environmental Rating IP65, IP67, IP68
(Depending on Electrical Connection)

Electrical Connections Hirschmann, Cable Gland and, M12x1 (5-pin)



All dimensions are in inches.

TC1 (Hirschmann)

Note: Dimensions are nominal and may vary. Check with REOTEMP sales if dimensions are critical. Other case styles available.

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HOW TO ORDER: Choose options to build a part number. For example: **TC1P134AB004-TS**

TC1	P13	4	A	B00	4	-TS
MODEL	RANGE	ACCURACY	OUTPUT SIGNAL	ELECTRICAL CONNECTION	PROCESS CONNECTION	OPTIONS
TC1 = Low Pressure Industrial Transmitter	See <i>Transmitter Technical Reference on pg.194</i>	4 = ±0.3% Full Scale	A = 4-20mA (2-Wire) (Standard) B = 0-5Vdc (3-Wire) D = 1-6Vdc (3-Wire) E = 0-10Vdc (3-Wire)	B00 = Hirschmann, No Cable (DIN EN 175301-803 Form A) BPVC05 = Hirschmann, w/ 5ft (1.5 Meter) PVC Shielded Cable BPVC10 = Hirschmann, w/ 10ft (3 Meter) PVC Shielded Cable BPVC16 = Hirschmann, w/ 16ft (5 Meter) PVC Shielded Cable BPVC33 = Hirschmann, w/ 33ft (10 Meter) PVC Shielded Cable BPVC?? = Hirschmann (?? = ft. of Cable) CGPUR?? = ?? ft. of PVC Shielded Cable PUR (Shielded, Screwed Cable Gland) 4/158°F CGPVC?? = ?? ft. of Shielded PVC Cable (Shielded, Screwed Cable Gland) 23/140°F M500 = M12 x 1 (5-pin) w/ Mating Connector M5PVC03 = M12 x 1 (5-pin) Female w/ 3ft (1 Meter) PVC Shielded Cable M5PVC10 = M12 x 1 (5-pin) Female w/ 10ft (3 Meter) PVC Shielded Cable M5PVC33 = M12 x 1 (5-pin) Female w/ 33ft (10 Meter) PVC Shielded Cable M5PVC?? = M12 x 1 (5-pin) Female w/ ??ft. PVC Shielded Cable M5PUR05 = M12x1 (5-pin)Female w/ 5ft. (1.5 Meter) PUR Shielded Cable M5PUR?? = M12x1 (5-pin) Female w/ ??ft. PUR Shielded Cable	4 = 1/4" NPT Male 8 = 1/8" NPT Male F = 1/2" NPT Male Flush Face Diaphragm Seal (60 psi Minimum)	-AD = Adapter 1/2" NPT Male x 1/4" NPT Female 316SS, Rated to 3,000 psi. (PXAD24SS) -RS = Threaded Restrictor Screw -TS = Stainless Steel Tag (1-10 Characters) -MC = M12x1 Female Connector, Field-Wireable <i>Optional Assembly to Diaphragm Seal Available</i>
NOTE: Additional Electrical Connections Upon Request. Contact Factory.						

LOW PRESSURE INDUSTRIAL PRESSURE TRANSMITTER

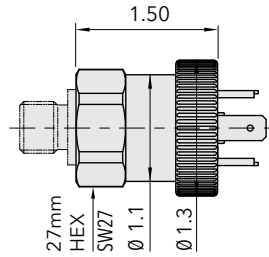
SPECIFICATIONS

Electrical Data	Output / supply voltage	4 ... 20 mA: 24 (9...30) VDC 0 ... 5 VDC: 24 (10...30) VDC 1 ... 6 VDC: 24 (10...30) VDC 0 ... 10 VDC: 24 (15...30) VDC		
	Rise Time	Typ. 1 ms / 10 ... 90 % nominal pressure		
	Inverse-polarity protection, short-circuit strength @77°F during 5 min	4-20mA: to U _s = 30 VDC 0-10 VDC, 0-5 VDC, 1-6 VDC: to U _s = 30 VDC		
Environmental Conditions	Media Temp	-13°F to 257°F		
	Ambient Temp	-13°F to 257°F (Cable PVC: 23/140°F) (Cable PUR: -4/158°F)		
	Protection	IP65, IP67, IP68 (depending on electrical connection)		
	Humidity	Max. 95% relative		
	Vibration	4g (10...2,000 Hz)		
	Shock	50g / 8ms		
	EMC Protection	Emission	EN/IEC 61000-6-3	
Immunity		EN/IEC 61000-6-2		
Mechanical Data	Sensor (wetted parts)	Ceramic, Al ₂ O ₃ (96%)		
	Pressure connection (wetted parts)	Standard: 1.4305 (AISI303) Upon Request: 1.4404/1.4435 (AISI316L), 1.4462 (AISI318LN), Titanium Grade 5		
	Housing	Standard: 1.4305 (AISI303) Upon Request: 1.4404/1.4435 (AISI316L), 1.4462 (AISI318LN), Titanium Grade 5		
	Sealing	FKM 70 Sh, CR, EPDM		
	Male Electrical Plug	See ordering information		
	Weight	appr. 3.88oz		
	Mounting torque	11.8 to 14.75 ft-lbs		
Accuracy	Pressure Measuring Range	> 0/5psi	0/2.5, 0/5psi	0/1.5, 0/2psi
	NLH @ +77°F (BSL)	[% FS typ.] +/- 0.2	+/- 0.3	+/- 0.3
	TEB @ -13 to +185°F	[% FS typ.] +/- 1.0	+/- 2.0	+/- 3.0
	TC zero point and span	[%FS/F typ.] +/- 0.01	+/- 0.01	+/- 0.01
	Long term stability 1 year @ +77°F	[%FS/ typ.] +/- 0.2	+/- 0.2	+/- 0.2

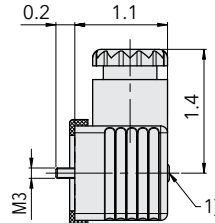
LOW PRESSURE INDUSTRIAL PRESSURE TRANSMITTER

TC1 Dimensions

All dimensions are in inches.

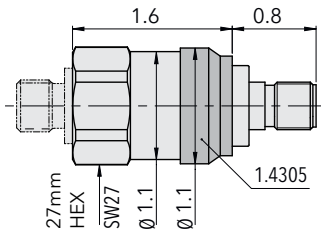


Hirschmann DIN A

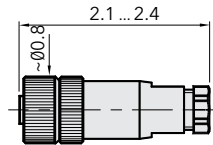


1) Tightening torque 4.4...5.3 in-lbs

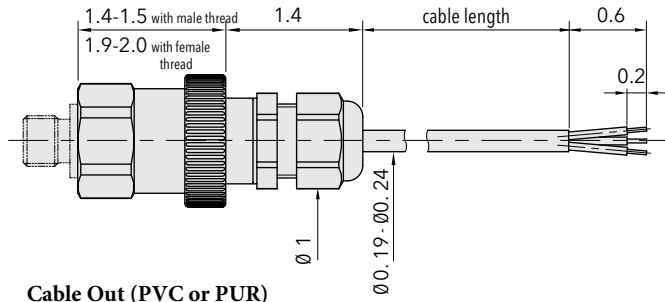
Hirschmann DIN A



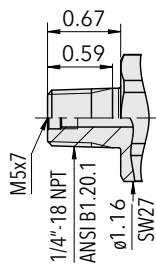
M12 (5 pin)



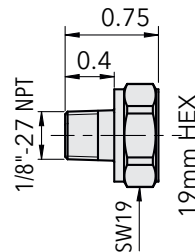
M12 mating connector



Cable Out (PVC or PUR)



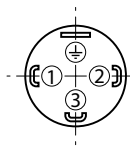
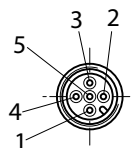
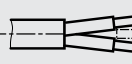
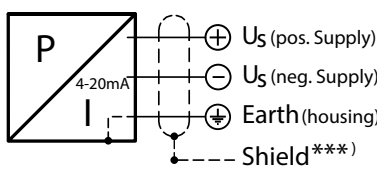
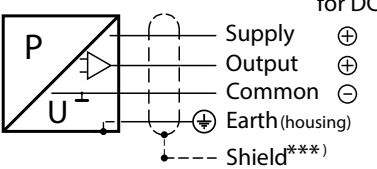
1/4" NPT



1/8" NPT

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TC1 Electrical Connection

		Protection / electrical connection		
		IP65*) **)	IP67*) ***)	IP68 max. 3 m
		Industrial standard EN175301-803A Hirschmann DIN A 	M12x1 5-pole M12 	Cable **) Cable Out PVC or PUR 
Output signal	 <p>4-20mA</p>	Standard 2 1 ⊕	4 1 5	white brown yellow
	 <p>0/5 VDC, 1/6 VDC, 0/10VDC</p>	Standard 2 3 1 ⊕	2 4 3 5	white green brown yellow

*) Provided female connector is mounted according to instructions

**) Ventilation via male electric plug/cable end

***) Only cable versions or female electrical plug with shield connection

TRANSMITTER TECHNICAL REFERENCE

SERIES		TSA	TSB	TSC	TSTP	TSTDS	TSTC	TG1	TP	TDS	TC	TE	TH1	THX	TL1
Code	Range	VACUUM													
P01	-30"Hg VAC	✓	✓	✓				✓				✓	✓	✓	
P01R	-14.5/0 psi						✓				✓				
Code	Range	COMPOUND RANGES													
P02	-30"Hg/0/15psi	✓	✓	✓				✓					✓	✓	
P03	-30/0/30 psi	✓	✓	✓				✓				✓	✓		
P04	-30/0/60 psi	✓	✓	✓				✓							
P05	-30/0/100 psi	✓	✓	✓				✓				✓			
P06	-30/0/150 psi	✓	✓	✓				✓						✓	
P07	-30/0/200 psi											✓			
P08	-30/0/300 psi	✓	✓	✓				✓							
P02R	-14.5/0/15 psi						✓				✓				
P03R	-14.5/0/30 psi				✓	✓	✓		✓	✓	✓				
P04R	-14.5/0/60 psi				✓	✓	✓		✓	✓	✓				
P05R	-14.5/0/100 psi				✓	✓	✓		✓	✓	✓				
P06R	-14.5/0/150 psi				✓	✓	✓		✓	✓	✓				
P07R	-14.5/0/200 psi				✓	✓	✓		✓	✓	✓				
P08R	-14.5/0/300 psi				✓	✓	✓		✓	✓	✓				
Code	Range	PRESSURE RANGES													
IN50	0/50 inH ₂ O						✓				✓		✓		✓
IN100	0/100 inH ₂ O						✓	✓			✓		✓		✓
IN200	0/200 inH ₂ O						✓				✓		✓		✓
L11	0/55 INWC			✓			✓				✓		✓		
L12	0/80 INWC			✓			✓				✓		✓		
L13	0/140 INWC	✓	✓	✓			✓	✓			✓		✓		
L14	0/280 INWC	✓	✓	✓			✓	✓			✓		✓		
P11	0/2 psi			✓			✓				✓		✓	✓	✓
P12	0/3 psi			✓			✓				✓		✓	✓	✓
P13	0/5 psi	✓	✓	✓			✓	✓			✓		✓	✓	✓
P14	0/10 psi	✓	✓	✓			✓	✓			✓		✓	✓	✓
P15	0/15 psi	✓	✓	✓			✓	✓			✓	✓	✓	✓	✓
P16	0/30 psi	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
P175	0/50psi				✓	✓	✓		✓	✓	✓				
P17	0/60 psi	✓	✓	✓			✓	✓			✓	✓	✓	✓	✓
P18	0/100 psi	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
P195	0/150 psi	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓
P20	0/200 psi	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓
P21	0/300 psi	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓
P26	0/500 psi	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
P23	0/600 psi	✓	✓	✓			✓						✓		
P27	0/750 psi	✓	✓	✓			✓					✓	✓	✓	✓
P25	0/1000 psi	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓
P30	0/1500 psi							✓	✓	✓			✓		
P31	0/2000 psi							✓	✓	✓		✓	✓		
P32	0/3000 psi							✓	✓	✓		✓	✓		
P34	0/5000 psi							✓	✓	✓		✓	✓	✓	
P35	0/6000 psi							✓				✓	✓		
P28	0/7500 psi							✓	✓	✓		✓	✓	✓	
P37	0/10000 psi							✓				✓	✓	✓	
P38	0/15000 psi							✓				✓	✓	✓	
P39	0/20000 psi												✓		
P40	0/30000 psi												✓		
P41	0/40000 psi												✓		
P42	0/50000 psi												✓		
P43	0/60000 psi												✓		
Code	Range	ABSOLUTE RANGES													
A15	0/15 psia	✓	✓					✓			✓				
A16	0/30 psia	✓	✓					✓			✓				
A17	0/60 psia	✓	✓					✓			✓				
A18	0/100 psia	✓	✓					✓			✓				
A19	0/150 psia	✓	✓					✓			✓				
A20	0/200 psia	✓	✓					✓			✓				
A21	0/300 psia	✓	✓					✓			✓				

TRANSMITTERS

Don't See the Range You Need? Other ranges may be available, contact REOTEMP customer service for more information.

✓ Indicates that the option is available
 Note: Specifications are subject to change.