

OEM Pressure Sensors "TecTrans"

For general applications

Accuracy 1%

Standard output: 4...20mA; 2-wire

> or 1...5VDC; 3-wire

> or 0...10VDC; 3-wire

or 0.5...4.5VDC; ratiometric



Description

The TecTrans is a high performance OEM pressure transducer that is designed to meet the requirements of the most demanding applications.

The sputtered thin film strain gauge technology provides excellent stability and a high burst pressure rating. This makes it a good choice for a range of applications that include refrigeration, pneumatic and hydraulic controls. It offers a compact size but with a variety of pressure and electrical connections to match the installation requirements.

A high degree of automation is used to produce the TecTrans pressure transducer, which enhances consistency and reliability.

Features

- o Measuring ranges from 0...6bar to 0...60bar
- o Compact design
- o High long-term stability
- o High peak pressure resistance
- o Protection up to IP67

Applications

Hydraulics

Pneumatics

Pumps

Machine and plant construction

Refrigeration

Model: P3355

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Technical data

Model P3355

- Ranges [bar] 6 10 16 25 40 60 - Overload limit [bar] 20 20 32 50 80 120 - Burst pressure [bar] 100 100 160 250 400 550 - Sensor element 7 100 100 160 250 400 550 - Sensor element 8 1 100 100 160 250 400 550 - Sensor element 9 1 100 100 160 250 400 550 - Sensor element 9 1 100 100 160 250 400 550 - Sensor element 9 1 100 100 160 250 400 550 - Sensor element 9 1 100 100 160 250 400 550 - Sensor element 9 1 100 100 160 250 400 550 - Sensor element 9 1 100 100 160 250 400 550 - Sensor element 9 1 100 100 160 250 400 550 - Sensor element 9 1 100 100 160 250 400 550 - Sensor element 9 1 100 100 160 250 400 550 - Sensor element 9 1 100 100 160 250 400 550 - Sensor element 9 1 100 100 160 250 400 550 - Sensor element 9 1 100 100 160 250 400 550 - Sensor element 9 1 100 100 160 250 400 550 - Sensor element 9 1 100 100 160 250 400 550 - Sensor element 9 1 100 100 160 250 400 550 - Sensor element 9 1 100 100 160 250 400 550 - Sensor element 9 1 100 100 160 250 400 550 - Sensor element 9 1 100 100 160 250 400 550 - Sensor element 9 1 100 100 160 250 400 150 100 100 100 100 100 100 100 100 1	Pressure type	positive gauge pressure						
- Overload limit [bar]				16	25	40	60	
- Burst pressure bar	0 1	20	20			80		
Sensor element	• 1							
Accuracy Accuracy Accuracy 15VDC 3- wire 010 VDC 010								
15VDC 3- wire 010VDC 010								
010VDC 3- wire 0.5.4 5VDC ratiometric other signals on request	and an engineer							
Other signals on request								
Accuracy ¹⁾								
2.0% of F.S. for measuring ranges ≤ 16 bar (≤1% BFSL)								
$ \begin{array}{llllllllllllllllllllllllllllllllllll$	Accuracy ¹⁾							
Stability (annual)		2.0% of F.S. for measuring ranges ≤ 16 bar (≤1% BFSL)						
$ \begin{array}{llllllllllllllllllllllllllllllllllll$		\leq 0.4% of F.S	S. BFSL					
$ \begin{array}{c} \text{case} \\ \text{wetted parts} \\ \text{wetted parts} \\ \text{stainless steel 1.4435 and 1.4542} \\ \text{Pressure connection} \\ \text{G} 1/4 \ \text{according to DIN 3852-E} \\ \text{7/16-20 UNF-2A} \\ \text{7/16-20 UNF-2A} \\ \text{7/16-20 UNF-2A} \ \text{female with schrader} \\ 1/4 \ \text{NPT} \\ \text{other on request} \\ \text{Electrical connection} \\ \text{Electrical connection} \\ \text{Electrical connector Metri Pack series 150} \\ \text{round connector Metri Pack 1.5m cable} \\ \text{420} \\ \text{15V} \\ \text{010V} \\ \text{010V} \\ \text{045V ratio.} \\ \text{5 \pm 0.5VDC} \\ \text{836VDC} \\ \text{RA} > 2.5 \text{k}\Omega \\ \text{RA} > 2.5 \text{k}\Omega \\ \text{RA} > 2.5 \text{k}\Omega \\ \text{RA} > 4.5 \text{k}\Omega \\ \text$	Stability (annual)	$\leq \pm 0.3\%$ of F.S. (in rated conditions)						
$\begin{tabular}{l l l l l l l l l l l l l l l l l l l $	Material							
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	case	fibre reinforced plastic (PBT)						
$ \begin{array}{c} \text{G } 1/4 \ \text{according to DIN 3852-E} \\ 7/16-20 \ \text{UNF-}2A \\ 7/16-20 \ \text{UNF-}2A \\ 7/16-20 \ \text{UNF-}2A \ \text{emale with schrader} \\ 1/4 \ \text{NPT} \\ \text{other on request} \\ \hline \end{array} $								
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Pressure connection							
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$								
$ \begin{array}{c} 7/16-20 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$		7/16-20 UNF-2A 7/16-20 UNF-2A female with schrader						
Electrical connection								
		· · · · · ·						
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Electrical connection	connector Metri Pack series 150 round connector M12x1 (4-pin)						
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Electrical confidention							
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$								
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$								
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$								
$\begin{array}{lll} 420 & 1036 \text{VDC} & R_{A} \left[\Omega\right] \leq \left(\text{U}_{B} \left[\text{V}\right] - 10 \text{V}\right) / 0.02 \text{A} \\ 15 \text{V} & 836 \text{VDC} & R_{A} > 2.5 \text{k} \Omega \\ 010 \text{V} & 1436 \text{VDC} & R_{A} > 2.5 \text{k} \Omega \\ 0.5 \dots 4.5 \text{V} \text{ ratio.} & 5 \pm 0.5 \text{VDC} & R_{A} > 4.5 \text{k} \Omega \\ \hline \text{Response time} & \leq 2 \text{ms within } 10\% \text{ to } 90\% \text{ of } F.S. \\ \hline \text{Protection type} & \text{according to EN } 60529 \\ \hline \text{Packard Metri Pack } 150 & \text{Round connector M12x1} & \text{IP67} \\ \hline \text{Cable outlet} & \text{IP67} \\ \hline \text{AMP Superseal connector} & \text{IP67} \\ \hline \text{EMC} & \text{interference} & \text{according to EN } 61 \ 326 \\ \hline \text{resistance} & \text{according to EN } 61 \ 326 \\ \hline \text{Electrical protection type} & \text{reverse polarity, overload and short-circuit protection except ratiometric output signals} \\ \hline \text{Temperature influence} & \text{median TC zero point} & \text{second of } 10 \text{K}^3 \text{Moscoler} \\ \hline \text{range} & \text{Singe} & \text{singe} & \text{singe} \\ \hline \text{storage} & \text{singe} & \text{singe} \\ \hline \text{media} & \text{40} 120^{\circ}\text{C}^4 \text{Moscoler} \\ \hline \text{ambient} & \text{40} 100^{\circ}\text{C}^4 \text{Moscoler} \\ \hline \end{array}$	Power supply / load							
$\begin{array}{lll} 15V \\ 010V \\ 0.5 & 4.5V \ ratio. \end{array} & 836VDC \\ 1436VDC \\ 5 \pm 0.5VDC \end{array} & R_A > 2.5k\Omega \\ R_A > 4.5k\Omega \end{array} \\ \hline Response time \\ \hline Protection type \\ Packard Metri Pack 150 \\ Round connector M12x1 \\ Cable outlet \\ AMP Superseal connector \\ EMC \\ interference \\ resistance \end{array} & according to EN 61 326 \\ according to EN 61 326 \\ according to EN 61 326 \\ Electrical protection type \\ Temperature influence \\ median TC zero point \\ median TC measuring \\ range \\ \hline Temperature ranges \\ compensated range \\ storage \\ media \\ ambient \end{array} & 080^{\circ}C \\ -40125^{\circ}C \\ -40100^{\circ}C^{4)} \\ -40100^{\circ}C^{4)} \\ \hline \end{array}$		1036VDC	R _A [$21 \le (U_B [V] - 1)$	0V) / 0.02A			
$\begin{array}{llllllllllllllllllllllllllllllllllll$		((())						
$ \begin{array}{llllllllllllllllllllllllllllllllllll$	010V							
Response time≤ 2ms within 10% to 90% of F.S.Protection type Packard Metri Pack 150 Round connector M12x1 Cable outlet AMP Superseal connectorIP67 IP67EMC interference resistanceaccording to EN 61 326 according to EN 61 326Electrical protection typereverse polarity, overload and short-circuit protection except ratiometric output signalsTemperature influence median TC zero point median TC measuring range $≤ \pm 0.3\% / 10K^3$ $≤ \pm 0.2\% / 10K$ Temperature ranges compensated range storage media ambient $080^{\circ}C$ $-40120^{\circ}C^4$ $-40125^{\circ}C$ $-40100^{\circ}C^4$	0.5 4.5V ratio.	$5 \pm 0.5 VDC$						
Protection type according to EN 60529 Packard Metri Pack 150 IP67 Round connector M12x1 IP67 Cable outlet IP67 AMP Superseal connector IP67 EMC according to EN 61 326 interference according to EN 61 326 resistance according to EN 61 326 Electrical protection type reverse polarity, overload and short-circuit protection except ratiometric output signals Temperature influence median TC zero point median TC measuring range ≤ ± 0.3% / 10K³ Temperature ranges compensated range storage 080°C storage media -40120°C⁴ ambient -40125°C ambient -40100°C⁴	Response time							
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Protection type							
$ \begin{array}{llllllllllllllllllllllllllllllllllll$		IP67						
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Round connector M12x1							
EMC interference according to EN 61 326 resistance according to EN 61 326 Electrical protection type reverse polarity, overload and short-circuit protection except ratiometric output signals Temperature influence median TC zero point median TC measuring range								
$\begin{array}{llllllllllllllllllllllllllllllllllll$		IP67						
resistance according to EN 61 326 Electrical protection type reverse polarity, overload and short-circuit protection except ratiometric output signals Temperature influence median TC zero point median TC measuring range		I' / FN 04 000						
Electrical protection type reverse polarity, overload and short-circuit protection except ratiometric output signals remperature influence median TC zero point median TC measuring range		· ·						
$ \begin{array}{llllllllllllllllllllllllllllllllllll$								
$\begin{array}{lll} \begin{tabular}{lll} \hline median TC zero point \\ median TC measuring \\ range \\ \hline \hline range \\ \hline \hline Temperature ranges \\ compensated range \\ storage \\ media \\ ambient \\ \hline \end{array} \begin{array}{lll} \le \pm 0.3\% / 10 K^{3)} \\ \le \pm 0.2\% / 10 K \\ \hline \\ \le \pm 0.2\% / 10 K \\ \hline \\ \le \pm 0.2\% / 10 K \\ \hline \\ \le \pm 0.2\% / 10 K \\ \hline \\ \le \pm 0.2\% / 10 K \\ \hline \\ \le \pm 0.2\% / 10 K \\ \hline \\ \le \pm 0.2\% / 10 K \\ \hline \\ \le \pm 0.2\% / 10 K \\ \hline \\ = -40120^{\circ} C^{4)} \\ \hline \\ = -40120^{\circ} C^{4)} \\ \hline \\ = -40125^{\circ} C \\ \hline \\ = -40100^{\circ} C^{4)} \\ \hline \end{array}$		reverse polarity, overload and short-circuit protection except ratiometric output signals						
$ \begin{array}{llllllllllllllllllllllllllllllllllll$		< ± 0.20/ / 10K3)						
range Temperature ranges compensated range storage media ambient -40125°C -40100°C ⁴⁾								
Temperature ranges compensated range storage media ambient 080°C -40120°C ⁴⁾ -40125°C ambient -40100°C ⁴⁾		≥± U.2% / TUK						
compensated range 080° C storage -40120° C $^{4)}$ media -40125° C ambient -40100° C $^{4)}$								
storage $-40120^{\circ}\text{C}^{4)}$ media -40125°C ambient $-40100^{\circ}\text{C}^{4)}$		080°C						
media -40125°C ambient -40100°C ⁴⁾								
ambient -40100°C ⁴⁾								
		-40100°C ⁴⁾						

 ¹⁾ Including non-linearity, hysteresis, non-repeatability, zero point and full scale error (corresponds to error of measurement per IEC 61298-2).
 ²⁾ according to IEC 61298-2
 ³⁾ For special pressure ranges increased TC of zero
 ⁴⁾ For cable version temperature range from - 40°C...90°C

of F.S. = of full scale value BFSL = Best fitt straight line

Dimensions

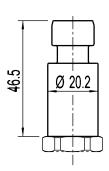
Case

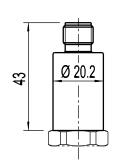
Connector Metri Pack 150

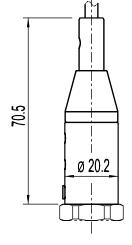
Round connector M12x1

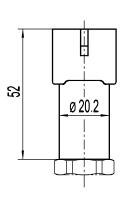
Cable outlet

AMP Superseal 1,5



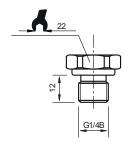


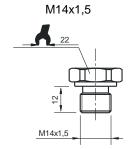


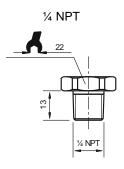


Pressure connection

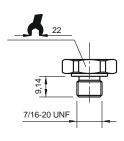
G 1/4B acc. to DIN 3852-E



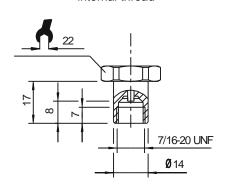




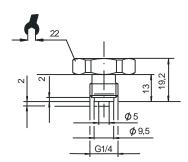
7/16-20 UNF-2A



7/16-20 UNF-2A Schrader internal thread



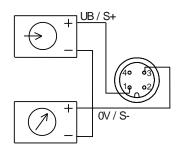
G 1/4B acc. to DIN 16288



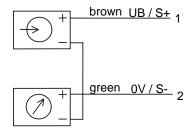
Electrical connection

Two-wire system

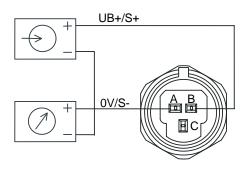
Round connector M12x1:



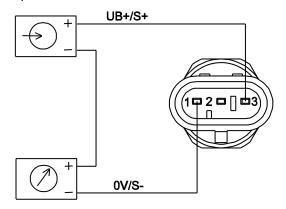
Cable outlet:



Connector Metri Pack 150:

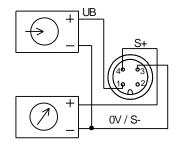


AMP Superseal:

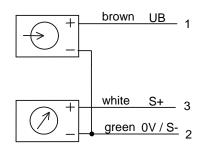


Three-wire system

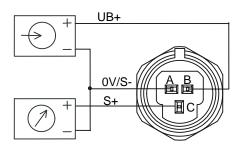
Round connector M12x1:



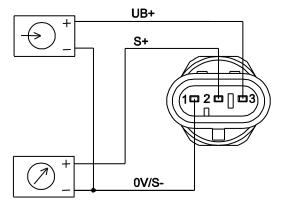
Cable outlet:



Connector for Metri Pack 150:



AMP Superseal:



Subject to technical alterations