

# OEM General Purpose Pressure Transmitters

## Type OT-1

### Applications

- Low pressure hydraulic systems
- Pneumatic systems
- Pumps and compressors
- HVAC

### Special Features

- Pressure ranges from 100 psi to 500 psi
- Compound ranges available
- Durable thin film sensor technology
- Environmental protection to IP67 / NEMA 4X



Fig. Pressure Transmitter Model OT-1

### Description

OT-1 pressure transmitters are precision engineered for low pressure HVAC, compressor, and pump applications where performance and durability are critical. Many different process and electrical connections are available allowing the OT-1 to be easily integrated with a wide variety of applications.

The all welded thin film measuring cell eliminates the need for additional soft sealing materials that may deteriorate over time. The thin film sensor uses sputtered technology that provides excellent long-term stability in applications producing frequent pressure cycles. The glass reinforced PBT plastic case has been used in under hood automotive applications for many years. A metal sleeve inside the case provides excellent EMI protection to 100v/m. The electrical connections meet NEMA 4X / IP 67 environmental protection ratings.

The OT-1 is specifically designed for OEM applications in the HVAC, compressor, and automotive industry. It is manufactured on a fully automated production line providing consistent quality and highly competitive pricing in large quantities. Custom modifications are available for large quantity requirements.

**Datasheet: OT-1**

## Specifications Model OT-1

<b>Pressure range</b>	-30INHG/100psi	-30INHG/200psi	100psi	150psi	250psi	300psi	500psi
<b>Maximum pressure*</b>	290psi	464psi	290psi	464psi	725psi	725psi	1160psi
<b>Burst pressure**</b>	1450psi	2320psi	1450psi	2320psi	3625psi	3625psi	5800psi

\*Pressure applied up to the maximum rating will cause no permanent change in specifications but may lead to zero and span shifts

\*\*Exceeding the burst pressure may result in destruction of the transmitter and possible loss of media

<b>Materials</b>				
■ Wetted parts			Stainless steel	
■ Case			Fiberglass-reinforced polybutylene terephthalate (PBT)	
Signal output	$U_R$ in DC V	Signal output	Power supply	load
Power supply	$R_A$ in Ohm	4 ... 20 mA, 2-wire	8 ... 36 DC V	$R_A \leq (U_B - 8 V) / 0.02 A$
Maximum load $R_A$		1 ... 6 V, 3-wire	9 ... 36 DC V	$R_A > 2500$
		1 ... 5 V, 3-wire	8 ... 36 DC V	$R_A > 2500$
		0 ... 10 V, 3-wire	14 ... 36 DC V	$R_A > 5000$
		0.5 ... 4.5 V, ratiometric	5 ± 0.5 DC V	$R_A > 4500$
Response time (10 ... 90 %)	ms	≤ 2		
Isolation voltage	DC V	500		
Accuracy	% of span	≤ 0.5	(BFSL)	
	% of span	≤ 1.0	(BFSL) for pressure ranges ≤ 150 psi	
	% of span	≤ 1.0	(terminal method)	
	% of span	≤ 2.0	(terminal method) for pressure ranges ≤ 150 psi	
		(Including linearity, hysteresis and repeatability)		
Non-repeatability	% of span	≤ 0.3		
1-year stability	% of span	≤ 0.3 (at reference conditions)		
Permissible temperature of				
■ Medium *)		-40 ... +257 °F	-40 ... +125 °C	
■ Ambient *)		-40 ... +212 °F	-40 ... +100 °C	
		With cable version limited temperature range from (-40 ... +194 °F) -40 ... +90 °C		
■ Storage *)		-40 ... +248 °F	-40 ... +120 °C	
		With cable version limited temperature range from (-40 ... +194 °F) -40 ... +90 °C		
		*) Also complies with EN 50178, Tab. 7, Operation (C) 4K4H, Storage (D) 1K4, Transport (E) 2K3		
Compensated temperature range		+32 ... +176 °F	0 ... +80 °C	
Temperature coefficients in compensated temp range				
■ Mean TC of zero	% of span	≤ 0.3 / 10K	(special pressure ranges may have increased TC of zero)	
■ Mean TC of range	% of span	≤ 0.2 / 10K		
-conformity		89/336/EWG interference emission and immunity see EN 61 326		
		interference emission limit class A and B		
		97/23/EG Pressure equipment directive		
Wiring protection		Protected against short circuiting signal + against $U_B$ - / 0V and reverse polarity for power supply except ratiometric output signals		
Mass	oz.	Approx. 2.1		

## Dimensions in inches (mm)

### Electrical connections

Ingress Protection IP per IEC 60 529

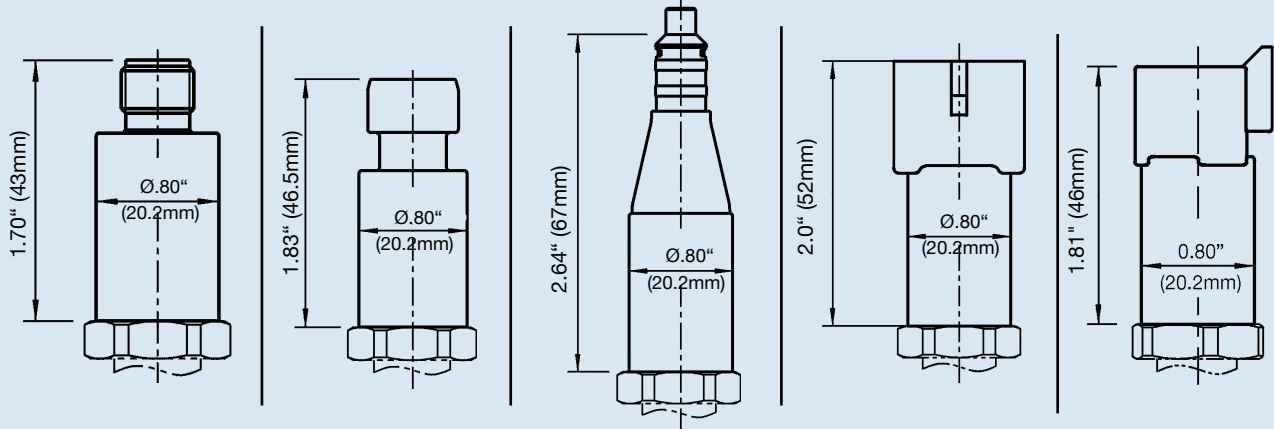
Circular connector  
M 12x1, 4-pin  
IP 67  
Order code: M4

Connector  
Metri Pack Serie 150  
IP 67  
Order code: R3

Flying leads  
IP 67  
Order code: DL

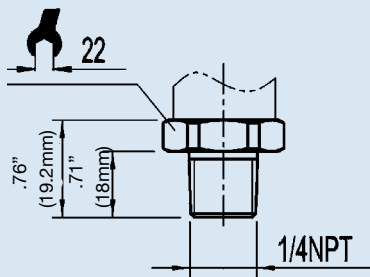
Connector  
AMP Superseal 1.5  
NEMA 4 / IP 67  
Order code: S3

Deutsch 3-Pin  
DT04-3P  
Order Code: G3

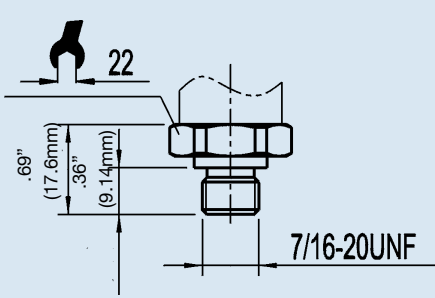


### Pressure connections

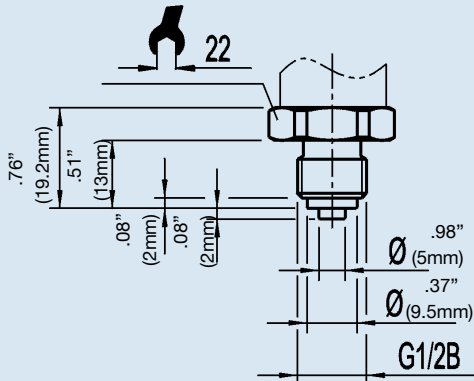
1/4 NPT male  
Order code: NB



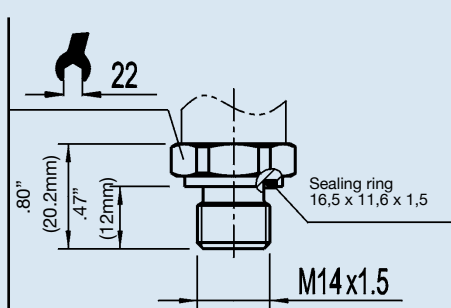
SAE #4 7/16-20 UNF-2A  
male o-ring boss  
Order code: UA



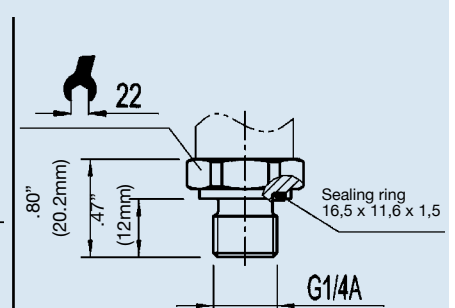
G 1/4  
EN 837  
Order code: GB



M 14x1,5  
per DIN 3852-E  
Ordercode: HN



G 1/4  
DIN 3852-E  
Order code: HD

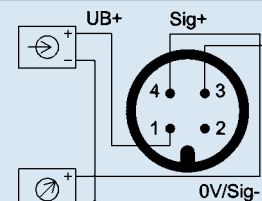
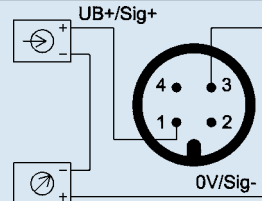


### Wiring details

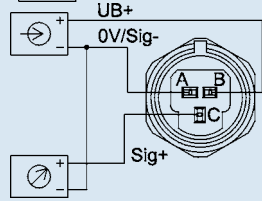
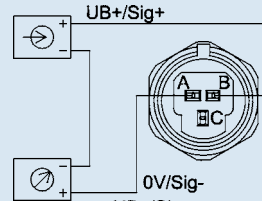
#### 2-wire

#### 3-wire

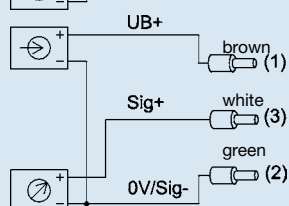
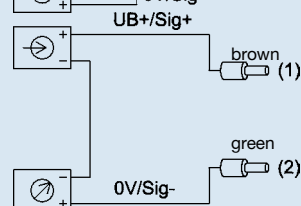
Circular connector  
M 12x1



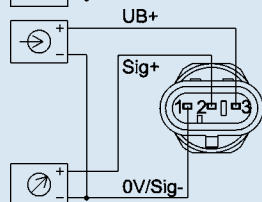
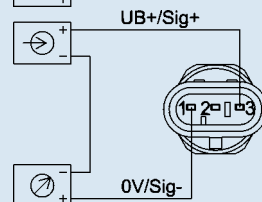
Connector  
Metri Pack Serie 150



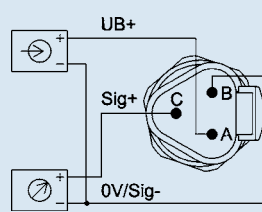
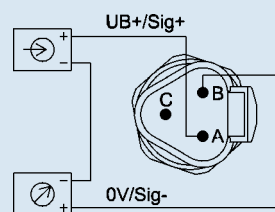
Cable with free ends



Connector  
AMP Superseal 1.5



Connector  
Deutsch  
DT04-3P



#### Legend:

	power supply	Sig+	output signal positive
	load (e.g. display)	UB+	power supply positive
		0V	power supply negative
		Sig-	output signal negative

# Type OT-1 OEM Pressure Transmitter

## 100 psi to 500 psi

Standard Features: See Datasheet OT-1



Note: 300 piece minimum order quantity applies.

### OT-1 Option List

Feature
<b>Signal Output</b>
4-20mA 2-wire
1-5V 3-wire
0-10V 3-wire
0.5-4.5V 3-wire Ratiometric
On inquiry
<b>Unit</b>
psi
On inquiry
<b>Pressure Range</b>
-30 inHg ... 100 psi
-30 inHg ... 200 psi
0 psi ... 100 psi
0 psi ... 150 psi
0 psi ... 250 psi
0 psi ... 300 psi
0 psi ... 500 psi
On inquiry
<b>Process Connection</b>
1/4" NPT
7/16-20 UNF SAE #4 J514 male
G 1/4 B
G 1/4 B DIN 3852-E
M 14x1.5 DIN 3852-E
On inquiry

Feature
<b>Electrical Connection</b>
4 Pin locking plug M12 x 1 (NEMA 5 / IP 65)
Connector Metri Pack Series 150, 3-pin
Cable with free ends (NEMA 4 / IP 67)
connector Deutsch DT04-3P, 3-pin
connector AMP Superseal 1.5, 3-pin
On inquiry
<b>Cable Length</b>
Without
0.5 meters
2 meters
5 meters
On inquiry
<b>Quality Certificates</b>
Without
Quality certificates
<b>Digital display</b>
Without
Digital display
<b>Additional order details</b>
Without
Additional text

Datasheet: OT-1