

Ultra High Purity Pressure Transmitters incl. zero & span adjustment functions for semiconductor industry series EDA.375

For ultrapure media and special gas system
wetted parts st. steel 316L
electro polished on wetted parts
max. $Ra \leq 0.18 \mu m$ (RA 7) according to SEMI F19

General features

- Pressure range from 0...1 to 0...350 bar
- Scale range up to 350 bar
- Process connection surface finish $Ra \leq 0.13 \mu m$
- Excellent external noise protection
- Housing parts of stainless steel
- Zero & Span Adjustment function by side

Application area

- EDA.375 is suitable for use in Ultra high purity gas distribution system
- Semiconductor, electronic, medical, biotechnology and pharmaceutical industries

General specification

Pressure ranges

from 0...1 to 0...350 bar

Accuracy

included Linearity+Hysteresis+Repeatability
 $\pm 0.5\%$ F.S
 $\pm 0.25\%$ F.S
 $\pm 0.1\%$ F.S [in case, positive range ≥ 1 bar]

Production environment

Clean room class 5 per ISO 14644

Output type

4...20mA, 2-wire system
 0...10V, 3-wire system
 0...5V, 3-wire system
 1...5V, 3-wire system
 0.5...4.5V, 3-wire system

Power supply

Ref. power: DC 24V
 Available power: DC 12...30V

Response time

$\leq 5ms$

Isolation

$> 100M\Omega$ at 100 VDC

Materials

Wetted parts: St. steel 316L
 Body: St. steel 304



Pressure transmitter series EDA.375

Temperature range

Compensated temperature range: $-10...80^{\circ}C$
 Operating: $-20...100^{\circ}C$
 $-40...+125^{\circ}C$ / option
 Ambient: $-40...125^{\circ}C$
 Storage: $-40...140^{\circ}C$

Thermal error

Zero thermal error: $\pm 0.75\%$ FS @ $25^{\circ}C$, typical
 Span thermal error: $\pm 0.75\%$ FS @ $25^{\circ}C$, typical

Electrical connection & Ingress protection

DIN43650 A	IP65
mPm plug	IP65
2m flying cable	IP67 / IP68
M12 plug	
- Straight type	IP67
- 90° Angle type	IP67

Pressure connection

- Single Straight thread
- Union nut, rotatable, male / female
- Flow through, male / female, fixed & rotatable
- Modular Surface Mount

Surface roughness treatment

Surface roughness
 Electropolished wetted surfaces
 $Ra \leq 0.13 \mu m$ (RA 5)
 max. $Ra \leq 0.18 \mu m$ (RA 7) according to SEMI F19

Weight

Approx. 160g



DAHO Tronic Limited
 Tel: 02-865-7001 Fax: 02-865-7109
 mail: info@daho.co.kr

STX W-Tower 209
 Gyeongin-ro 53 Gil 90 Guro-gu
 Seoul 08215 Korea

www.daho.co.kr

Technical specifications

Input pressure range

Normal pressure:
from 0...1 to 0...350 bar

Output signal / Supply

Current:
2-wire system 4...20mA Vs=12...30 VDC

Voltage:
2-wire system 0...10V Vs=12...30 VDC
 0...5V
 1...5V
 0.5...4.5V

Performance

¹Accuracy: $\leq \pm 0.5\% \text{FSO @ } 25^\circ\text{C}$
 $\leq \pm 0.25\% \text{FSO @ } 25^\circ\text{C}$
 $\leq \pm 0.1\% \text{FSO @ } 25^\circ\text{C}$
¹ accuracy according to IEC 60770 - limit point adjustment
including non-linearity, hysteresis as well as repeatability

Permissible load / R_L

Current: 2-wire, $R_L \text{ max} = [(V_s - V_s \text{ min}) / 0.02 \text{ A}] \Omega$

Voltage: 3-wire, $R_L \text{ min} = 10 \text{ k}\Omega$

Influence effects:

Supply: 0.05%FSO/10V
Longterm stability: $\leq \pm 0.5\% \text{FS / year}$
Response time: <5ms

Thermal effects (Offset and Span) / Permissible temperatures

FS thermal error: $\pm 0.75\% \text{FS @ } 25^\circ\text{C}$, typical
Zero thermal error: $\pm 0.75\% \text{FS @ } 25^\circ\text{C}$, typical
Operating temperature: -20...100°C
 -40...+125 °C / option
Compensated tempearture: -10...80°C

Electrical protection

Electromagnetic compatibility:
Emission and immunity according to
EN 61326-2-3:20B CCISPR II Group 1, Class A
EN IEC 61000-3-2:2019

Insulation: the transmitter is grounded via
 the process connection

Mechanical stability

Vibration: No change at 10 g RMS (20...2000) Hz
Shock: 0.1 g (1m/s) Max.

Materials

Pressure port: Stainless steel 316L
Housing / body: Stainless steel 304
Sensor diaphragm: Stainless steel 316L
Wetted parts: Stainless steel 316L

Miscellaneous

Current consumption
Signal output current max. 25mA

Current:
4...20mA, 2-wire system
Signal output voltage max. 7mA

Voltage:
0...10V, 3-wire system
0...5V, 3-wire system
1...5V, 3-wire system
0.5...4.5V, 3-wire system

Ingress protection: IP65 / IP67 / IP68
 according to electrical connections.

EMC Test report for CE conformance

■ EN 61326-2-3:2013 / Class A
■ EN 61326-2-3: 2013 / IEC 61326-1:2012

Ordering information

Model code

EDA.375 · · · · B · · option

Accuracy

A4	≤ 0.5 % F.S
A7	≤ 0.25 % F.S
A9	≤ 0.1 % F.S

Output signal

O1	4...20mA / 2-wire system
O2	0...10V / 3-wire system
O3	0...5V / 3-wire system
O4	1...5V / 3-wire system
O6	0.5...4.5V, 3-wire system
	0.5...4.5V /5V, ratio-metric

Electrical connection

P	mPm plug
D	DIN 43650 A

Pressure range code, unit bar

Code	Range
R23	0...1
R26	0...1.6
R28	0...2.5
R30	0...4
R32	0...6
R33	0...10
R35	0...16
R37	0...25
R39	0...40
R41	0...60
R43	0...100
R45	0...160
R47	0...250
R	0...350
RYY	Others on request

Process connection

Single Straight thread

S1	1/4" Tube welding
S2	Swivel Male
S3	Swivel Female

Flow through

F1	Fixed Male + Male
F2	Swivel Female + Female
F3	Swivel Male + Male
F4	Fixed Male + Swivel Female
F5	Swivel Female + Male
F6	Fixed Male + Swivel Male
F7	1/4" Tube welding

Surface mounting

M1	Modular Surface Mounting
----	--------------------------

Option code

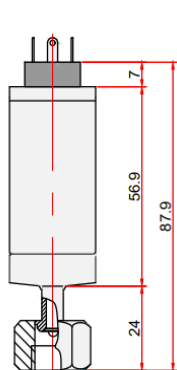
Code	Description
PAA	absolute pressure range [5...6 weeks delivery]
xL	x m cable extension (0 ₀): 5L = 5 m, 3L = 3 m)
T4	-40...+125 °C
AC25	Restrictor screw in socket hole
TP	St. steel tag plate, 60 x 20 x 0.5t
DMCC	Manufacture calibration certificate

How to order

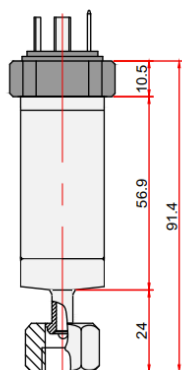
EDA.375, 0.5%, DIN43650A plug, 0...4 bar, 4...20mA, Swivel female connection

EDA.375. A4. O1. D. R33. S3

Single Straight thread

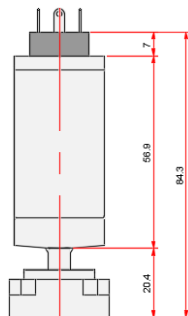


mPm plug type / IP65

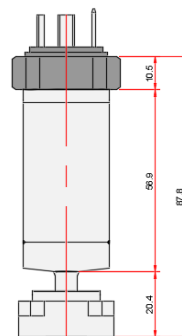


DIN 43650A type / IP65

Modular surface mount

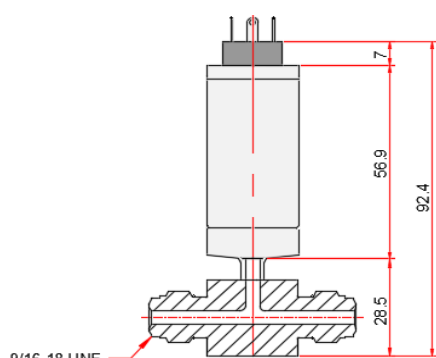


mPm plug type / IP65

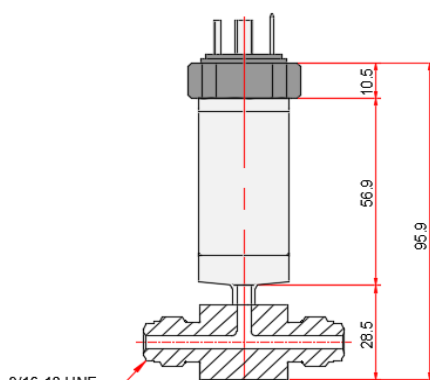


DIN 43650A type / IP65

Flow through

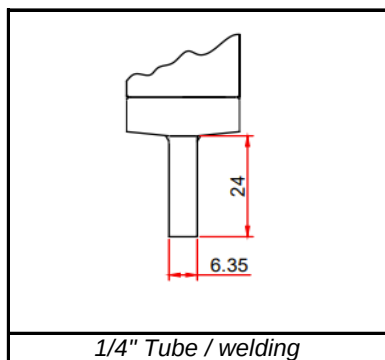


mPm plug type / IP65

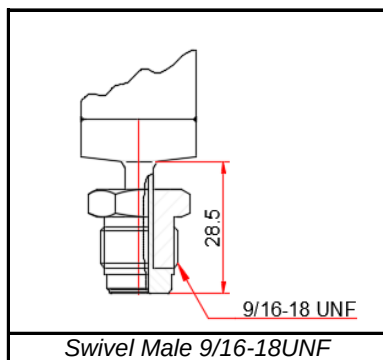


DIN 43650A type / IP65

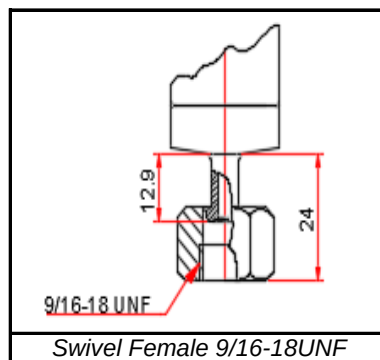
Process connection



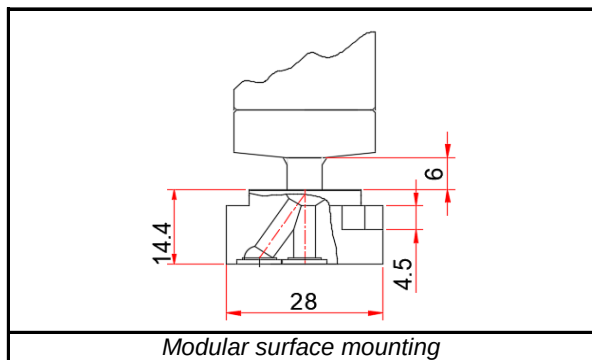
1/4" Tube / welding



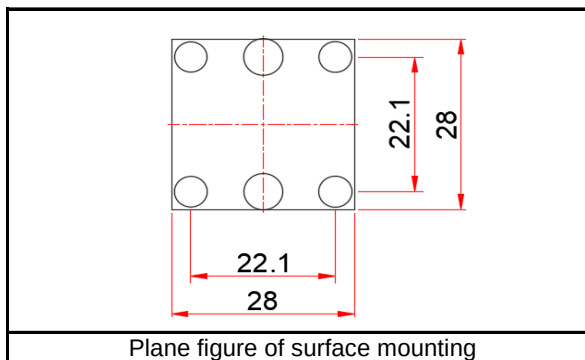
Swivel Male 9/16-18UNF



Swivel Female 9/16-18UNF

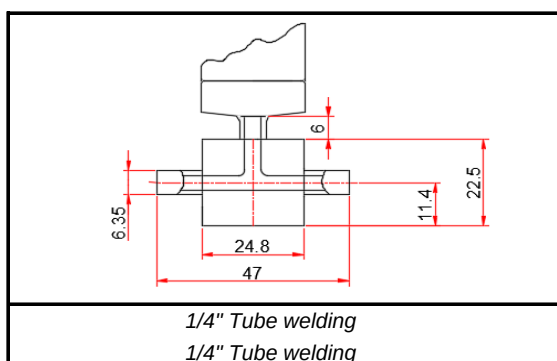
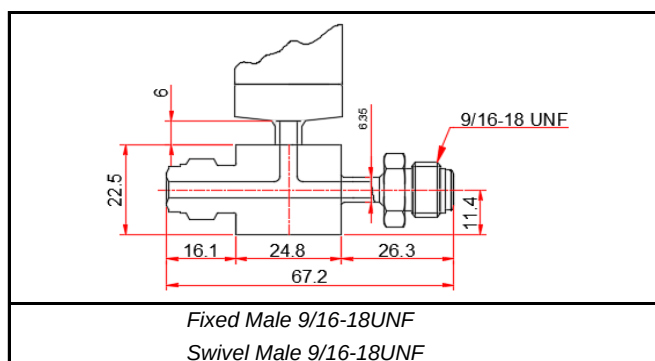
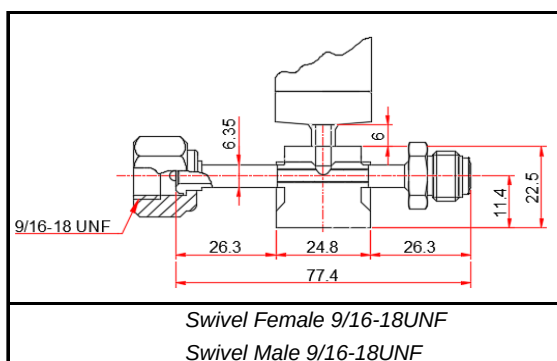
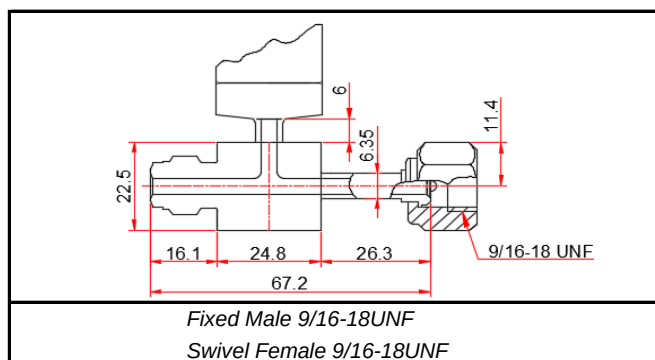
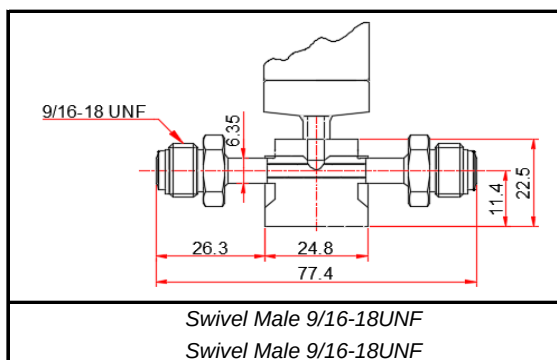
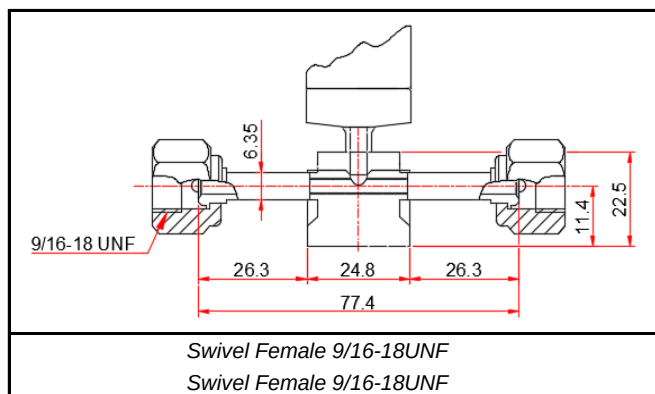
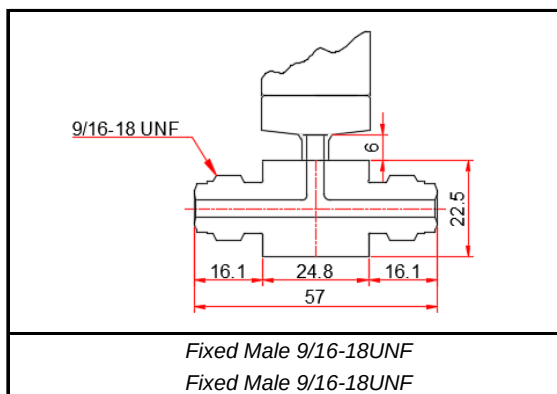


Modular surface mounting

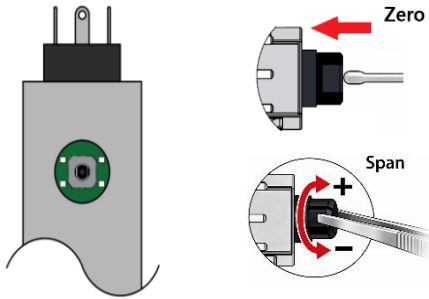


Plane figure of surface mounting

Process connection



Zero & Span adjustment methods



Zero Adjustment

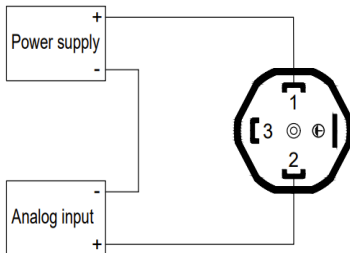
Press the button three times
to set the current pressure value to zero.

Span Adjustment

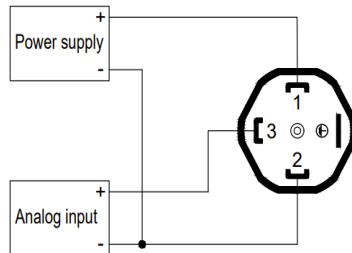
Rotate the adjustment screw to set the span value.
Press and hold the button for 3 seconds to save the setting.

Pin assignment

DIN 43650A connector according to DIN EN 175301-803A



2-wire / current, 4...20mA



3-wire / voltage, 0...10V, 0...5V, 1...5V

Pin No.	2-Wire	3-Wire
1	+Vcc	+Vcc
2	Output(mA)	GND
3		Output(VDC)