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

For ultrapure media and special gas system
wetted parts st. steel 316L
electro polishied on wetted parts
max. Ra ≤ 0.18 µm (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 finishe Ra≤0.13㎛
- 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



Pressure transmitter series EDA.375

General specification

Pressure ranges
from 0…1 to 0…350 bar

Accuracy
included Linearity+Hysteresis+Repeatability
A4: ± 0.5% FS
A7: ± 0.25% FS
A9: ± 0.1% FS [positive range ≥ 2 bar, possible]

Production environment
Clean room class 5 per ISO 14644

Output type

Current output:	4…20mA, 2-wire system
Voltage output:	0…10V, 3-wire system
	0…5V, 3-wire system
	1…5V, 3-wire system
	0.5…4.5V, 3-wire system

Power supply

2-wires:	DC 8…30V
3-wires:	DC 12…30V

Loard resistance

2-wires:	< (U - 8V) / 25 mA
3-wires:	> 5k Ω

Response time
≤ 5ms

Isolation
> 100MΩ at 100 VDC

Materials

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

Temperature range

Compensated temperature range:	-10…80℃
Operating:	-20…100℃
	-40…+125 ℃ / option
Ambient:	-40…125℃
Storage:	-40…140℃

Thermal error

Zero thermal error:	±0.75%FS @ 25℃, typical
Span thermal error:	±0.75%FS @ 25℃, 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 ≤ 0.13 µm (RA 5)
max. Ra ≤ 0.18 µm (RA 7) according to SEMI F19

Weight
Approx. 160g

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Seoul 08215 Korea
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Technical specifications

Input pressure range

Norminal pressure:
from 0…1 to 0…350 bar

Output signal / Supply

Current:

2-wire system	4…20mA	Vs = 8…30 VDC

Voltage:

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

Performance

[1]Accuracy: ≤ ±0.5%FSO @ 25℃
≤ ±0.25%FSO @ 25℃
≤ ±0.1%FSO @ 25℃

[1] accuracy according to IEC 60770 - limit point adjustment including non-linearity, hysteresis as well as repeatability

Permissible load / R_L
Current: 2-wire, < (U - 8V) / 25 mA
Voltage: 3-wire, > 5k Ω

Influence effects:

Supply:	0.05%FSO/10V
Longterm stability:	≤±0.5%FS / year
Response time:	<5ms

Thermal effects (Offset and Span) / Permissible temperatures

FS thermal error:	±0.75%FS @ 25℃, typical
Zero thermal error:	±0.75%FS @ 25℃, typical
Operating temperature:	-20…100℃
	-40…+125 ℃ / option
Compensated tempearture:	-10…80℃

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
O5	0.5…4.5V /5V, ratio-metric

Electrical connection	
P	mPm plug
D	DIN 43650 A
M	M12 plug
C	2m cable

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

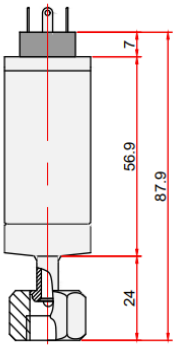
Code	Description
PAA	absolute pressure range [5…6 weeks delivery]
xL	x m cable exstension (예: 5L = 5 m, 3L = 3 m)
T4	-40…+125 °C
AC25	Restrictor screw in socket hole
TP	St. steel tag plate, 60 x 20 x 0.5t
DMCC	Manufacture calibration certificate

How to order

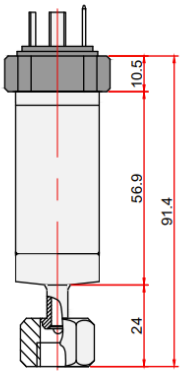
EDA.375. A4. O1. D. R33. S3

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

Single Straight thread

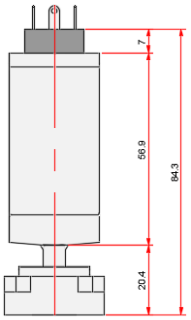


mPm plug type / IP65

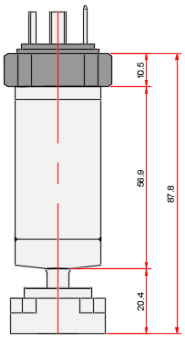


DIN 43650A type / IP65

Modular surface mount

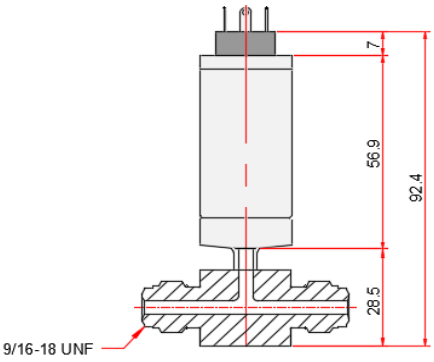


mPm plug type / IP65

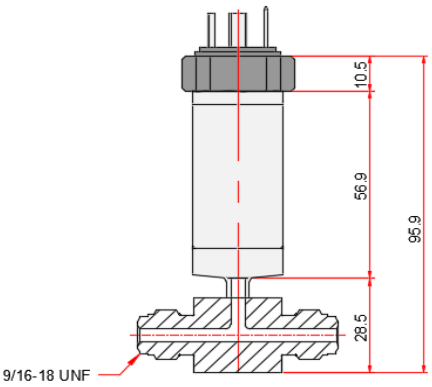


DIN 43650A type / IP65

Flow through

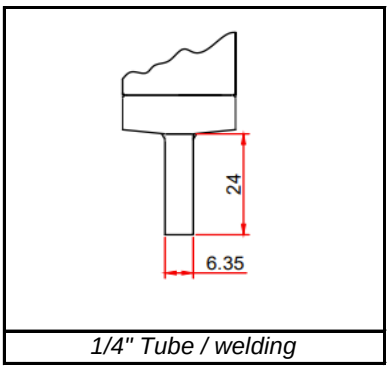


mPm plug type / IP65

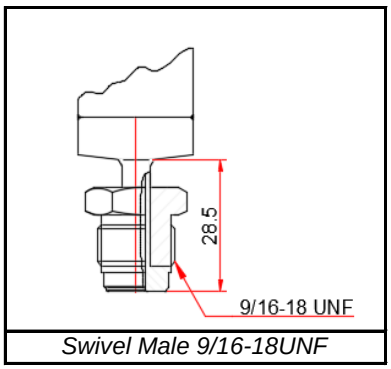


DIN 43650A type / IP65

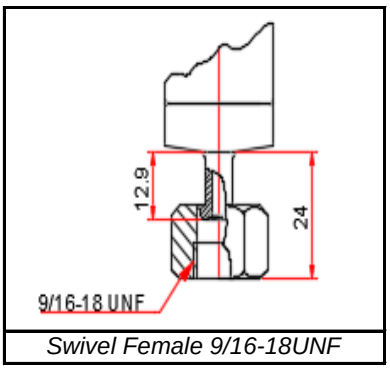
Process connection



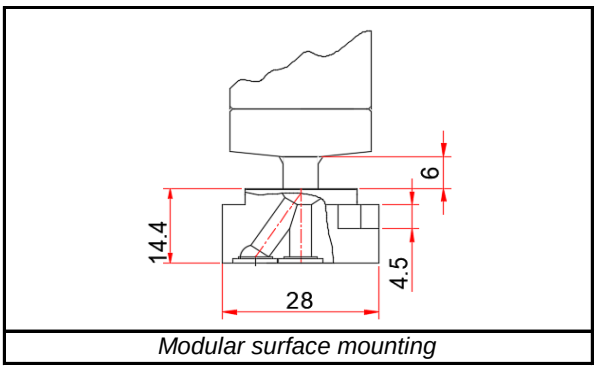
1/4" Tube / welding



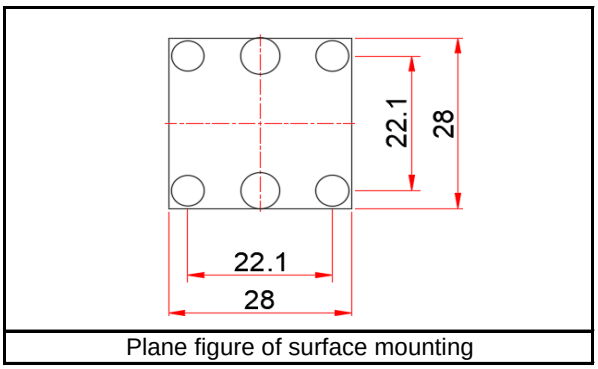
Swivel Male 9/16-18UNF



Swivel Female 9/16-18UNF

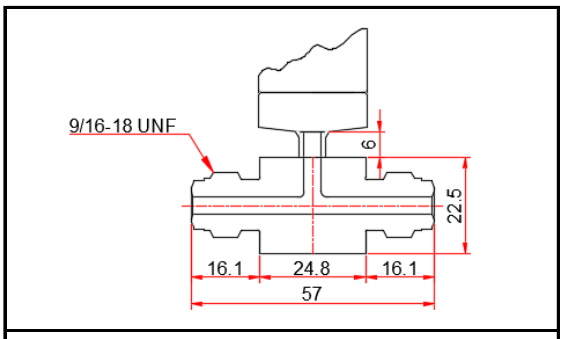


Modular surface mounting

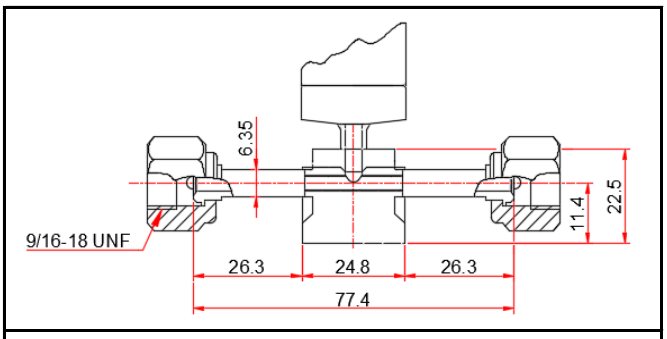


Plane figure of surface mounting

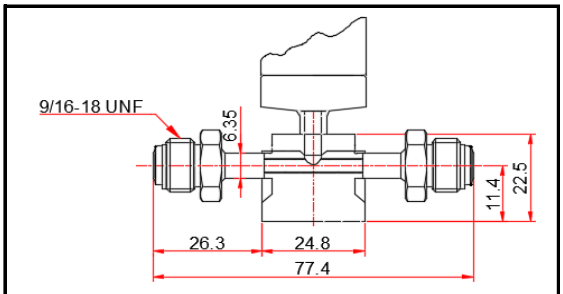
Process connection



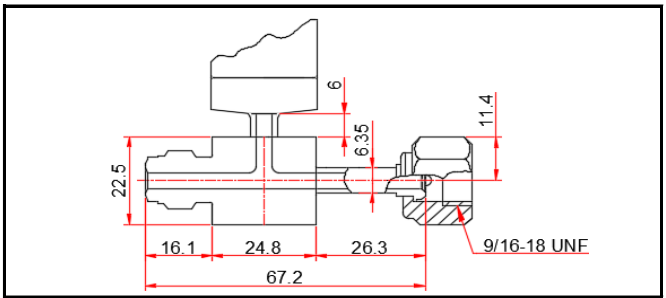
Fixed Male 9/16-18UNF
Fixed Male 9/16-18UNF



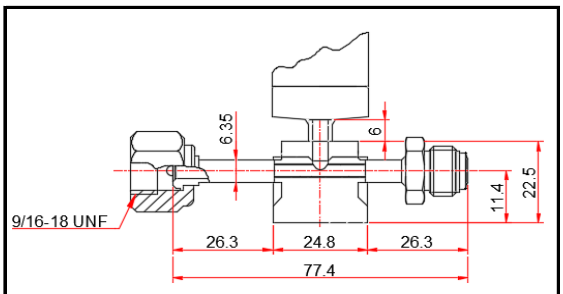
Swivel Female 9/16-18UNF
Swivel Female 9/16-18UNF



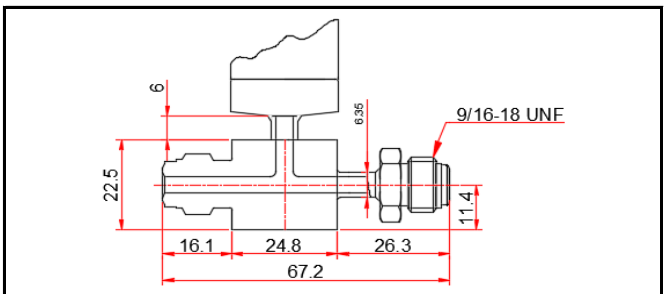
Swivel Male 9/16-18UNF
Swivel Male 9/16-18UNF



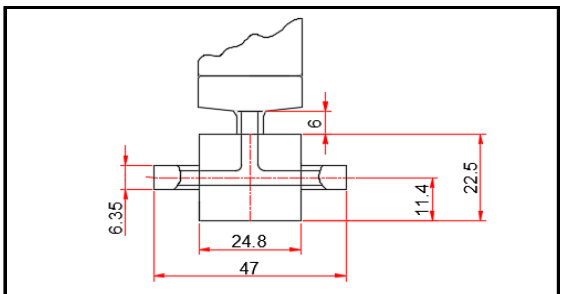
Fixed Male 9/16-18UNF
Swivel Female 9/16-18UNF



Swivel Female 9/16-18UNF
Swivel Male 9/16-18UNF

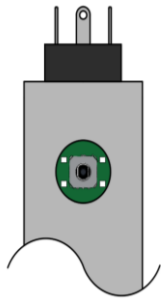


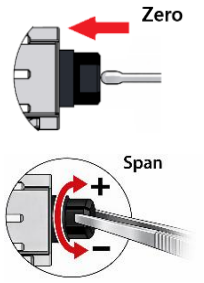
Fixed Male 9/16-18UNF
Swivel Male 9/16-18UNF



1/4" Tube welding
1/4" Tube welding

Zero & Span adjustment methods





Zero Adjustment

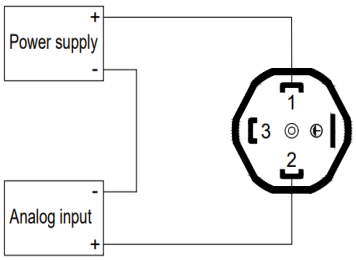
Press the button three times
to set the current pressure value to zero.

Span Adjustment

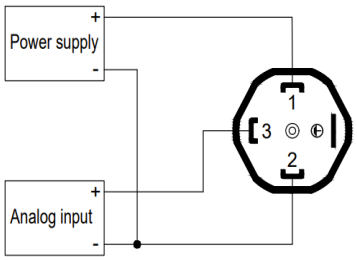
Rotate the adjustment screw to set the span value.
Press and hold the button for 3 seconds to save the setting.

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

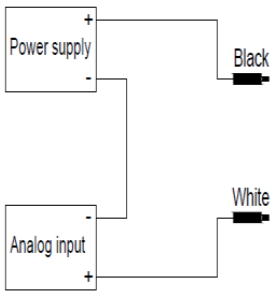
Pin No.	2-Wire	3-Wire
1	+Vcc	+Vcc
2	Output(mA)	GND
3		Output(VDC)

M12 x 1, 5-pin / male

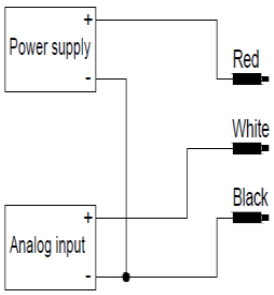


Pin No.	2-Wire	3-Wire
1	+Vcc	+Vcc
2	Output(mA)	GND
3		Output(VDC)
4		

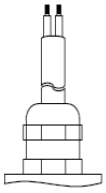
Flying leads with 2m cable



2-wire / current, 4…20mA



3-wire / voltage, 0…10V, 0…5V, 1…5V



	2-Wire	3-Wire
White	Output(mA)	Output(VDC)
Red		+Vcc
Black	+Vcc	GND

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