



E920 Pressure transmitter with flush diaphragm

- Pressure and vacuum measurements, absolute or gauge
- Ceramic, TRANSBAR® sensing element
- Zero adjustment ($\pm 10\%$ of range)
- Welded construction – reinforced product
- Modularity of electrical and hydraulic connections
- Stainless steel flush diaphragm
- Conforms to European EMC Directive, CE marked
- Highly resistant to severe process conditions
- Intrinsically safe versions (Y920): LCIE 99-E6074X certificat ; EEX ia IIC T6 or T5 approval
- Marine version (Bureau Veritas, DNV ...)



An all stainless steel construction with flush diaphragm connection makes these transmitters ideally suited for measurements on viscous and heavy fluids such as paint, pulp and paper, and most uses in the refrigeration field. Hydraulic connections: G 1/2, G 3/4, G 1, 1/2 NPT.

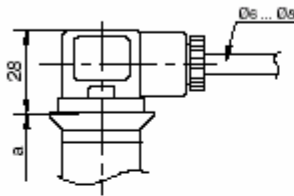
Specifications (20°C)

Measurement range	0...1.6 bar to 0...600 bar compound pressure, gauge or absolute pressure. (according to the pressure connection)	Operating temperature	
Output signal	E922-Y922: 0...10 Vdc / E924-Y924: 1...5 Vdc E923-Y923: 4...20 mA / E926-Y926: 0...20 mA	Ambient (Ta)	Standard E920 -15...+85°C Option Low T _o : -40...+85°C / High T _o : -25...+100°C Standard Y920 -25...+40°C (T6 approval) -25...+70°C (T5 approval)
Supply voltage	E922: 14...40 Vdc Y922: 14...28 Vdc E923-E924: 11...40 Vdc Y923-Y924: 11...28 Vdc E926: 8...40 Vdc Y926: 8...28 Vdc	Fluid	Option High T _o : -25...+150°C (T _a ≤ 50°C)
Option	High voltage: up to 48 Vdc Low voltage: 8...32 Vdc (E923, E924) For intrinsically safe versions Y920, power supply electrical parameters device must be: $U_{app} \leq 28$ Vdc ; $I \leq 120$ mA ; $P \leq 0.8$ W	Zero thermal drift	$\pm 0.025\%$ F.S./°C max. Option: $\pm 0.015\%$ F.S./°C max
Insulation	> 100 M Ω at 250 Vdc. Option: 500 Vdc	Span thermal drift	typically: $\pm 0.01\%$ /°C-max: $\pm 0.015\%$ /°C
Maximum input current	E922-Y922 / E924-Y924: 6 mA E926-Y926: < 25 mA	Wetted parts	St. steel flush diaphragm 1.4404 (316 L) + 1 or 2 NBR O-rings
Load impedance (+ M /-M)	E922-Y922: ≥ 2.5 k Ω E924-Y924: ≥ 1 k Ω E923: $R_{in} \leq (U_{app} - 11)/0.02$ E923: $R_{in} \leq (U_{app} - 8)/0.02$ (low voltage option) E926: $R_{in} \leq (U_{app} - 6)/0.02$	Connection	Electrical: DIN 43650 connector (standard) Pressure: G1/2 (flush diaphragm), 1 or 2 O-rings Filling oil: LRS 1, -15...+150°C (standard) LRS 5, -40...+150°C LRS 7, -20...+80°C (paint application) Many options available
CE-conformity	Standards EN50082-1 and -2 (immunity) Standards EN50081-1 and -2 (emission) with screened cable, screen connected at both ends Pressure standards 97/23/CE	Protection rating (EN 60529)	IP65 (DIN connector) Option: IP67 or IP68 (depending on connection)
Global error (linearity, hysteresis and repeatability) by reference to BFSL	Typically: $\pm 0.2\%$ of F.S. / Max.: $\pm 0.3\%$ of F.S. For P= 600 bar: Typically: $\pm 0.6\%$ of F.S. / Max.: $\pm 1\%$ of F.S.	Typical response time	≤ 3 ms
Storage temperature	-40...+85°C (standard version)	Vibration resistance (EN 60068-2-6)	1,5 mm (10-55 Hz), 20 g (55 Hz-2 kHz)
Compensated temperature range (zero and sensitivity)	-10...+55°C. Option: -10...+70°C	Shock resistance (EN 60028-2-32)	25 falls from 1 m on concrete ground
		Weight	From 0.300 to 0.900 kg. Depending on versions

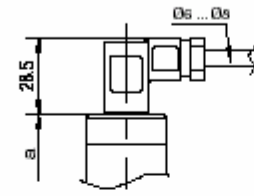
Configuration and dimensions (mm) of the transmitter

Electrical connections

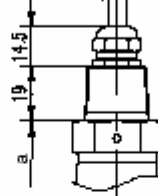
DIN 43650 connector
(standard)



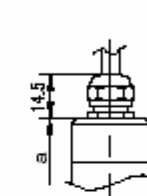
Option 08
DIN 43650C micro plug



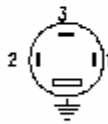
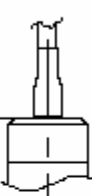
Option 54
Pig tail cable outlet
with 1/2 NPT male (1.5 m)



Option 23
Pig tail + PG7 cable gland
(1.5 m)



Option 22
pig tail
(1.5 m)



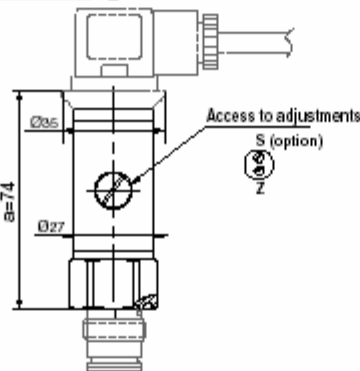
	E/Y923	E/Y922/4/6
1	+A	+M
2	-A	-A / -M
3		+A
⊥	Ground	

	E/Y923	E/Y922/4/6
White	+A	
Blue	-A	-A / -M
Red		+A
Yellow		+M
Ground		⊥

Transmitter body

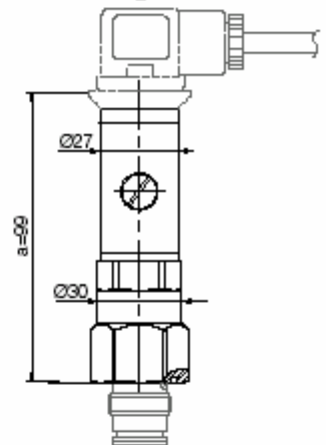
Type A:

G1/2 (standard),
4 ≤ P ≤ 100 bar



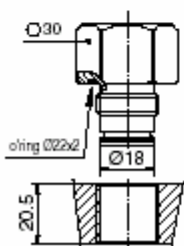
Type B:

G1/2, P > 100 bar
G3/4, P ≥ 2.5 bar
G1, P ≥ 1.6 bar
1/2 NPT, P ≥ 4 bar

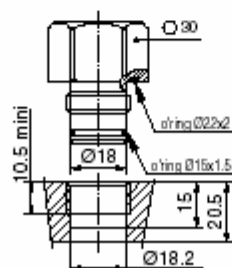


Hydraulic connections

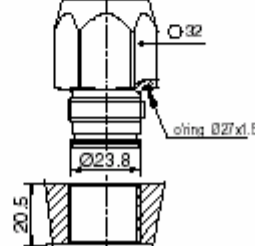
G1/2, 1 o-ring



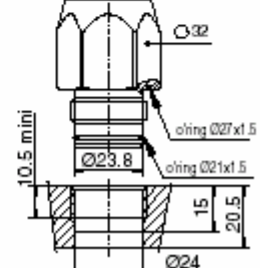
G1/2, 2 o-rings



G3/4, 1 o-ring



G3/4, 2 o-ring



Code: DG

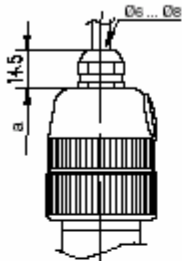
DL

DK

DM

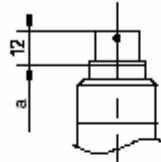


Option 20
Terminal strip outlet +
screwed cap



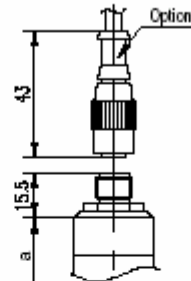
	E/Y923	E/Y922/4/6
1	+A	+M
2	-A	-A/ -M
3		+A
4	Ground	

Option 09
6 contacts HE302 plug



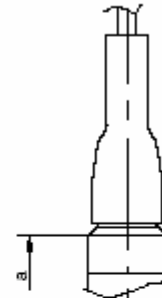
	E/Y923	E/Y922/4/6
A	+A	+A
B		-A/ -M
C	-A	+M
D		
E	Ground	
F		

Option 24
M12 4 contacts plug



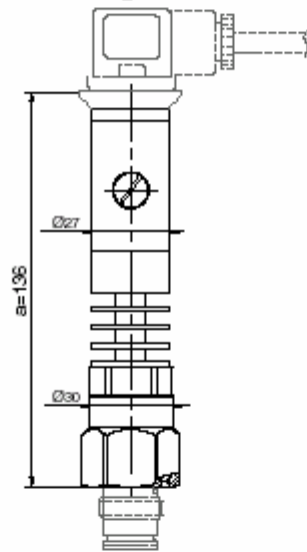
	E/Y923	E/Y922/4/6
1	+A	+A
2		+M
3	Ground	
4	-A	-A/ -M

Option 27
Submersible cable (IP68)



	E/Y923	E/Y922/4/6
White	+A	+M
Blue	-A	-A/ -M
Red		+A
Ground	⊕	

Type C:
high temperature
option
T° ≤ 150°C

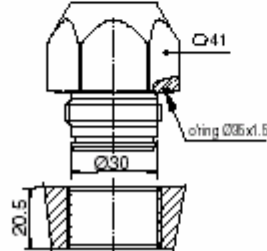


Body transmitter dimension according to
the electrical connection (a in mm)

	a (mm)	Type A	Type B	Type C
DIN 43650 connector		74	99	136
Micro DIN 43650C connector		74	99	136
Fig tail		78.5	103.5	140.5
Fig tail + PG7 cable gland		78.5	103.5	140.5
Fig tail cable outlet with 1/2 NPT		78	103	140
Terminal strip outlet + screwed cap		113	138	175
6 contacts HE302 plug		83.5	108.5	145.5
M12, 4 contacts plug		77	102	139
Submersible cable, IP68 ⁽¹⁾		81.5	106.5	143.5

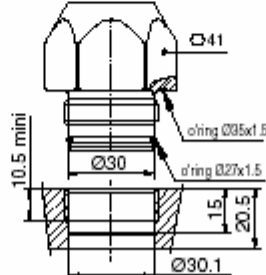
⁽¹⁾ no access to adjustments

G1, 1 o'ring



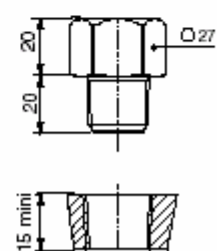
DF

G1, 2 o'ring



DN

1/2 NPT



E5



Options

Uncoded Options (have to be listed after the code)

Degreased
 Lightning protection
 Marine version
 Supply voltage (high/low)⁽¹⁾
 Ambient temperature (high/low)⁽¹⁾
 Compensated temperature range (-10...+70°C)
 Zero thermal drift: ±0.015% of range/°C max.
 Span adjustment ±10% of range
 Span adjustment ±50% of range (except for 0 +1.6 and 0 +600 bar)
 Calibration of sensor with certificate: Q1060
 Other hydraulic connections
 Additional length of cable
 Filling oil: LRS5, LRS7
 Stainless steel surface mounting brackets
 Other units: kPa (code D), MPa (code E), kg/cm² (code F),
 psi (code H), mbar (code N)

Coded Options

Other electrical connections:

- 08. DIN 43650C micro plug (IP65⁽²⁾)
- 22. Pig tail (1.5 m) (IP65)
- 23. Pig tail (1.5 m) + PG7 cable gland (IP65, IP67⁽³⁾)
- 54. Pig tail cable outlet with 1/2 NPT male (1.5 m) (IP65)
- 20. Terminal strip outlet + screwed cap (IP65, IP67)
- 09. 6 contacts HE302 plug (IP65)
- 24. M12, 4 contacts plug (IP65)
- 27. Submersible cable (IP68 version⁽⁴⁾)

⁽¹⁾ see specifications for details / ⁽²⁾ P65: water spray / ⁽³⁾ IP67: temporary immersion /

⁽⁴⁾ IP68: prolonged immersion

Measuring Ranges

Pressure range	compound	-1+0.6 ⁽¹⁾	-1+1.5 ⁽²⁾	-1+3	-1+5	-1+9	-1+15	-1+24	-1+39	—	—	—	—	—	—
	pressure	1.6 ⁽¹⁾	2.5 ⁽²⁾	4	6	10	16	25	40	60	100	160	250	400	600
Measurement range		1.75	2.75	4.4	6.6	11	17.6	27.5	44	66	110	176	275	440	660
Max. over pressure		3	4	8	12	20	32	50	80	120	200	320	500	600	800
Burst pressure		6	7	12	18	30	48	75	120	180	300	480	600	800	1000

⁽¹⁾ G 1 connection only

⁽²⁾ G 3/4 and G 1 connections only

Ordering - E920

	x92x	xxx	xxxx
Model	1'...3' digit		
Standard	E92		
Intrinsically safe	Y92		
Output signal	4' digit		
0...10 Vdc	2		
4...20 mA	3		
1...5 Vdc	4		
0...20 mA	6		
Hydraulic connection	5'...6' digit		
G1/2 flush diaphragm 1 o'ring (standard)	DG		
G1/2 flush diaphragm 2 o'rings (standard)	DL		
G3/4 flush diaphragm 1 o'ring	DK		
G3/4 flush diaphragm 2 o'rings	DM		
G1 flush diaphragm 1 o'ring	DF		
G1 flush diaphragm 2 o'rings	DN		
1/2 NPT flush diaphragm (without o'ring)	E5		
Sensor seal	7' digit		
NBR (Nitril) standard	3		
CR (Neoprene)	4		
EPDM ⁽³⁾	5		
FKM (Viton ⁽⁴⁾)	9		
Pressure range	8'...10' digit		
See codes in tables			xxx
Pressure type	11' digit		
Absolute			A
Gauge			R

code	Range in bar			
	Vacuum pressure		Pressure	
B72	-1	+ 0.6 ⁽¹⁾	-	R
B74	-1	+ 1.5 ⁽²⁾	-	R
B76	-1	+ 3	-	R
B77	-1	+ 5	-	R
B79	-1	+ 9	-	R
B81	-1	+ 15	-	R
B82	-1	+ 24	-	R
B1L	-1	+ 39	-	R
B16	0	+ 1.6 ⁽¹⁾	A	R
B18	0	+ 2.5 ⁽²⁾	A	R
B19	0	+ 4	A	R
B20	0	+ 6	A	R
B22	0	+ 10	A	R
B24	0	+ 16	A	R
B26	0	+ 25	A	R
B27	0	+ 40	A	R
B29	0	+ 60	A	R
B31	0	+ 100	A	R
B33	0	+ 160	A	R
B35	0	+ 250	A	R
B38	0	+ 400	A	R
B39	0	+ 600	A	R

⁽¹⁾ G 1 connection only

⁽²⁾ G3/4 and G 1 connections only

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⁽³⁾ for low temperature applications (-40°C)