

Pressure transducers



Pressure transducers selection guide

Type	MBS 32 MBS 33	MBS 3000	MBS 3200	MBS 4500	MBS 33M	MBS 3100	MBS 5100	EIMP2	MBS 4010	MBS 4510	MBS 4701	MBS 8200	MBS 9200	MBS 6000 MBS 6100 (Common Rail)	MBS 3207
Types with pulse snubber	MBS 4050	MBS 3050	MBS 3250			MBS 3150	MBS 5150				MBS 4751	MBS 8250	MBS 9250		MBS 3257
Ordering information found in this catalog on page		26	30				32								
Measuring range	0 to 1 bar - 0 to 600 bar (0 to 14.5 - 0 to 8,700 psi)	0 to 1 bar - 0 to 600 bar (0 to 14.5 - 0 to 8,700 psi)	0 to 1 bar - 0 to 600 bar (0 to 14.5 - 0 to 8,700 psi)	0 to 1 bar - 0 to 600 bar (0 to 14.5 - 0 to 8,700 psi)	0 to 1 bar - 0 to 600 bar (0 to 14.5 - 0 to 8,700 psi)	0 to 1 bar - 0 to 600 bar (0 to 14.5 - 0 to 8,700 psi)	0 to 1 bar - 0 to 600 bar (0 to 14.5 - 0 to 8,700 psi)	-1 to 1.5 bar - 0 to 400 bar (-14.5 to 21.75 psi -0 to 5,800 psi)	0 to 4 bar - 0 to 60 bar (0 to 58 psi - 0 to 870 psi)	0-250 mbar to 0-25 bar (0-3.6 psi to 0-362.5 psi)	0 to 1 bar - 0 to 600 bar (0 to 14.5 - 0 to 8,700 psi)	0 to 1 bar - 0 to 600 bar (0 to 14.5 - 0 to 8,700 psi)	0 to 1 bar - 0 to 600 bar (0 to 14.5 - 0 to 8,700 psi)	0 to 1,800 bar - 0 to 3,000 bar (0 to 26,100 psi - 0 to 43,500 psi)	0 to 1 bar - 0 to 600 bar (0 to 14.5 - 0 to 8,700 psi)
Pressure reference	Absolute or gauge	Absolute or gauge	Absolute or gauge	Absolute or gauge	Absolute or gauge	Absolute or gauge	Absolute or gauge	Gauge	Absolute or gauge	Absolute or gauge	Absolute or gauge	Absolute or gauge	Absolute or gauge	Absolute	Absolute or gauge
Output signal	ratiometric	4 to 20 mA, voltage	4 to 20 mA	4 to 20 mA	4 to 20 mA	4 to 20 mA, voltage, or ratiometric	4 to 20 mA	4 to 20 mA	4 to 20 mA	4 to 20 mA	4 to 20 mA	4 to 20 mA, voltage or ratiometric	4 to 20 mA, voltage or ratiometric	4 to 20 mA, voltage or ratiometric	CANopen
Process connection	NPT, BSP, UNF or Metric	NPT, BSP, UNF or Metric	NPT, BSP, UNF or Metric	NPT, BSP, UNF or Metric	NPT, BSP, UNF or Metric	NPT, BSP, UNF or Metric	Flange, NPT, BSP or Metric	G $\frac{1}{2}$ A, G $\frac{3}{8}$ A or G $\frac{1}{4}$ int.	G $\frac{1}{2}$ A, ISO 228/1	G $\frac{1}{2}$ A conical metal	NPT, BSP or Metric	NPT, BSP or Metric	NPT, BSP or Metric	M14 x 1.5 or M18 x 1.5	NPT, BSP or Metric
Electrical connection	Various plugs or cable	Various plugs or cable	Various plugs or cable	DIN plug	DIN plug or cable	DIN plug	DIN Plug	Terminal connection	DIN plug or cable	DIN plug	Various plugs or cable	Various plugs or cable	Various plugs or cable	Various plugs or cable	M12 x 1
Operating temperature	-40° to 85°C (-40° to 185°F)	-40° to 85°C (-40° to 185°F)	-40° to 125°C (-40° to 257°F)	-40° to 85°C (-40° to 185°F)	-40° to 85°C (-40° to 185°F)	-40° to 85°C (-40° to 185°F)	-40° to 85°C (-40° to 185°F)	-10° to 70°C (-14° to 158°F)	-10° to 85°C (-14° to 185°F)	-10° to 85°C (-14° to 185°F)	-40° to 125°C (-40° to 257°F)	-40° to 125°C (-40° to 257°F)	-40° to 125°C (-40° to 257°F)	-40° to 125°C (-40° to 257°F)	-40° to 125°C (-40° to 257°F)
Enclosure	IP 65/67 NEMA 13/6	IP 65/67 NEMA 13/6	IP 65/67 NEMA 13/6	IP 65 NEMA 13	IP 65/67 NEMA 13/6	IP 65 NEMA 13	IP 65 NEMA 13	IP 67 NEMA 6	IP 65/67 NEMA 13/6	IP 65 NEMA 13	IP 65 NEMA 13	IP 65/67 NEMA 13/6	IP 65/67 NEMA 13/6	IP 65/67 NEMA 13/6	IP 67 NEMA 6
Zero point and span adjustable				•			•	•		•	•				
Wetted parts material	AlSi 316L	AlSi 316L	AlSi 316L	AlSi 316L	AlSi 316L	AlSi 316L	Anodised AlSi 316L	AlSi 316L 17-4 PH	AlSi 316L	AlSi 316L	AlSi 316L	AlSi 316L	AlSi 316L	AlSi 316L	AlSi 316L
Accuracy (typical)	±0.3% FS (MBS 32/33) ±0.5% FS (MBS 4050)	±0.5% FS	±0.5% FS	±0.2% FS	±0.3% FS	±0.5% FS	±0.1% FS	±0.3% FS	±0.3% FS	±0.2% FS	±0.5% FS	±0.5% FS	±0.5% FS	±0.1% FS	±0.3%
Approvals	CE and UL	CE and UL	CE and UL	CE and UL	CE and UL	CE, UL and Marine	CE, UL and Marine	CE, UL and Marine	CE and UL	CE and UL	CE, UL and Ex	CE and UL	CE and UL	CE and UL	CE and UL

Can be used together with:

MBV5000 test valve															
MBD1000 display (Plug Pgs or Pg11 only)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

MBS3000 / MBS3050



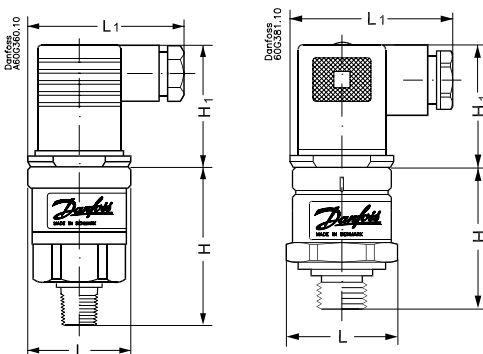
Pressure transducers

- Millions of cycles, high overpressure and excellent long term stability
- Laser trimmed electronic circuit in thick film for improved accuracy and low thermal shifting
- Fully welded sensor: no internal O-rings and all housing and wetted parts in stainless steel (AISI 316L)
- Long term stability and reliability based on the very robust piezo-resistive technology
- Patented sealing against ingress of moisture
- High robustness against environmental influences
- Integrated pulse snubber minimizes the risk for break down due to cavitations, liquid hammer or pressure peaks in the system (MBS3050)



Technical data

Measuring Range	Pabs and Pe 0 to 1 bar (0 to 14.5 psi) to 0 to 620 bar (0 to 9000 psi)
Process connection	NPT, BSPP, UNF or metric
Output signal	4 to 20 mA or voltage
Supply voltage	Output signal = 4 to 20 mA 9 to 32 V dc
	Output signal = 0 to 5 V, 1 to 5 V or 1 to 6 V 9 to 30 V dc
	Output signal = 15 to 30 V 15 to 30 V dc
Electrical connection	various plugs or cable
Enclosure	Plug: IP 65 / NEMA 13
	Cable: IP 67 / NEMA 6
Operating temperature	-40° to 85°C (-40° to 185°F)



Dimensions and weight

Type	H		L		H1		L1		Weight	
	mm	in	mm	in	mm	in	mm	in	kg	lbs
MBS3000	55.88	2.2	33.02	1.3	40.64	1.6	50.8	2.0	0.20	0.44
MBS3050*	49.14	1.93	32	1.26	40.64	1.6	50.8	2.0	0.18	0.40

* For process connection SAE-4, 7/16 UNF. For all other process connections use dimensions for MBS3000

Ordering - MBS3000

Pressure range		Pressure connection	Output signal	Electrical connection	Proof pressure		Burst pressure		Code no.
<i>bar (gauge)</i>	<i>psi (gauge)</i>				<i>max. bar</i>	<i>max. psi</i>	<i>min. bar</i>	<i>min. psi</i>	
0 to 1	0 to 14.5	1/4 - 18 NPT	4 to 20	plug Pg 9	2.1	30	51.7	750	060G1563
0 to 3.4	0 to 50	1/4 - 18 NPT	4 to 20	plug Pg 9	8.3	120	51.7	750	060G3737
0 to 6	0 to 87	1/4 - 18 NPT	4 to 20	plug Pg 9	8.3	120	51.7	750	060G1135
0 to 6.7	0 to 100	1/4 - 18 NPT	4 to 20	plug Pg 9	20.7	300	51.7	750	060G1141
0 to 10.3	0 to 150	1/4 - 18 NPT	4 to 20	plug Pg 9	20.7	300	51.7	750	060G1142
0 to 13.8	0 to 200	1/4 - 18 NPT	4 to 20	plug Pg 9	20.7	300	51.7	750	060G1143
0 to 20.7	0 to 300	1/4 - 18 NPT	4 to 20	plug Pg 9	51.7	750	100	1,450	060G1144
0 to 34.5	0 to 500	1/4 - 18 NPT	4 to 20	plug Pg 9	51.7	750	100	1,450	060G1145
0 to 51.7	0 to 750	1/4 - 18 NPT	4 to 20	plug Pg 9	51.7	750	100	1,450	060G1146

Ordering - MBS3050

Versions with pulse snubber

Pressure range		Pressure connection	Output signal	Electrical connection	Proof pressure		Burst pressure		Code no.
<i>bar (gauge)</i>	<i>psi (gauge)</i>				<i>max. bar</i>	<i>max. psi</i>	<i>min. bar</i>	<i>min. psi</i>	
68.95	0 to 1000	1/4 - 18 NPT	4 to 20	plug Pg 9	413.8	6000	413.8	6000	060G5513
68.95	0 to 1000	SAE-4,7/16 UNF	4 to 20	plug Pg 9	413.8	6000	413.8	6000	060G5508
137.9	0 to 2000	1/4 - 18 NPT	4 to 20	plug Pg 9	827.6	12000	827.6	12000	060G5514
137.9	0 to 2000	SAE-4,7/16 UNF	4 to 20	plug Pg 9	827.6	12000	827.6	12000	060G5509
206.84	0 to 3000	SAE-4,7/16 UNF	4 to 20	plug Pg 9	1241.4	18000	1241.4	18000	060G5510
413.69	0 to 6000	SAE-4,7/16 UNF	4 to 20	plug Pg 9	1500	21750	2000	29000	060G5511
620.53	0 to 9000	SAE-4,7/16 UNF	4 to 20	plug Pg 9	1500	21750	2000	29000	060G5512

MBS2250



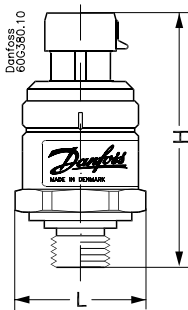
Pressure transducers

- Millions of cycles, high overpressure and excellent long term stability
- Laser trimmed electronic circuit in thick film for improved accuracy and low thermal shifting
- Fully welded sensor: no internal O-rings and all housing and wetted parts in stainless steel (AISI 316L)
- Long term stability and reliability based on the very robust piezo-resistive technology
- Patented sealing against ingress of moisture
- High robustness against environmental influences
- Integrated pulse snubber minimizes the risk for break down due to cavitations, liquid hammer or pressure peaks in the system



Technical data

Measuring Range	Pabs and Pe 0 to 1 bar (0 to 14.5 psi) to 0 to 620 bar (0 to 9000 psi)
Process connection	NPT, BSPP, UNF or metric
Output signal	Ratiometric, 10 to 90% of supply voltage
Supply voltage	4.75 to 8 V dc
Electrical connection	various plugs or cable
Enclosure	Plug: IP 65 / NEMA 13 Cable: IP 67 / NEMA 6
Operating temperature	-40° to 125°C (-40° to 257°F)



Dimensions and weight

H		L		Weight	
mm	in	mm	in	kg	lbs
62	2.44	32	1.26	0.12	0.26

Ordering - MBS2250

Pressure range		Pressure connection	Output signal	Electrical connection	Proof pressure		Burst pressure		Code no.
<i>bar (gauge)</i>	<i>psi (gauge)</i>		<i>voltage</i>		<i>max. bar</i>	<i>max. psi</i>	<i>min. bar</i>	<i>min. psi</i>	
0 to 3.45	0 to 50	SAE-4, 7/16 UNF	10% to 90% ratiometric	packard-round	20.7	300	20.7	300	060G5500
0 to 41.37	0 to 600	SAE-4, 7/16 UNF	10% to 90% ratiometric	packard-round	124.1	1800	124.1	1800	060G5501
0 to 137.9	0 to 2000	SAE-4, 7/16 UNF	10% to 90% ratiometric	packard-round	827.6	12000	827.6	12000	060G5502
0 to 206.84	0 to 3000	SAE-4, 7/16 UNF	10% to 90% ratiometric	packard-round	1241.4	18000	1241.4	18000	060G5503
0 to 344.74	0 to 5000	SAE-4, 7/16 UNF	10% to 90% ratiometric	packard-round	1500	21750	2000	29000	060G5504
0 to 413.69	0 to 6000	SAE-4, 7/16 UNF	10% to 90% ratiometric	packard-round	1500	21750	2000	29000	060G5505
0 to 482.63	0 to 7000	SAE-4, 7/16 UNF	10% to 90% ratiometric	packard-round	1500	21750	2000	29000	060G5506
0 to 620.53	0 to 9000	SAE-4, 7/16 UNF	10% to 90% ratiometric	packard-round	1500	21750	2000	29000	060G5507

MBS3200



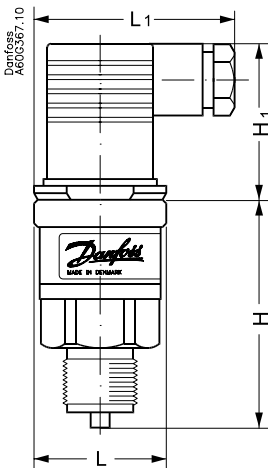
Pressure transducers

- Millions of cycles, high overpressure and excellent long term stability
- Laser trimmed electronic circuit in thick film for improved accuracy and low thermal shifting
- Fully welded sensor: no internal O-rings and all housing and wetted parts in stainless steel (AISI 316L)
- Long term stability and reliability based on the very robust piezo-resistive technology
- Patented sealing against ingress of moisture
- High robustness against environmental influences



Technical data

Measuring Range	Pabs and Pe 0 to 1 bar (0 to 14.5 psi) to 0 to 600 bar (0 to 8700 psi)		
Process connection	NPT, BSPP, UNF or metric		
Output signal	4 to 20 mA or voltage		
Supply voltage	Output signal = 4 to 20 mA	9 to 34 V dc	
	Output signal = 0 to 5 V, 1 to 5 V or 1 to 6 V	10 to 30 V dc	
	Output signal = 0 to 10 V	15 to 30 V dc	
Electrical connection	various plugs or cable		
Enclosure	Plug: IP 65 / NEMA 13		
	Cable: IP 67 / NEMA 6		
Operating temperature	-40° to 125°C (-40° to 257°F)		



Dimensions and weight

H		L		H1		L1		Weight	
mm	in	mm	in	mm	in	mm	in	kg	lbs
66.04	2.6	33.02	1.3	40.64	1.6	50.8	2.0	0.20	0.44

Ordering MBS3200

Pressure range		Process connection	Output signal	Electrical connection	Proof pressure		Burst pressure		Code no.
<i>bar (gauge)</i>	<i>psi (gauge)</i>				<i>mA</i>	<i>max. bar</i>	<i>max. psi</i>	<i>min. bar</i>	
0 to 1	0 to 14.5	G1/2A (BSPP)	4 to 20	plug Pg 9	6	87	100	1,450	060G1870
0 to 1.6	0 to 23	G1/2A (BSPP)	4 to 20	plug Pg 9	12	174	100	1,450	060G1871
0 to 2.5	0 to 36	G1/2A (BSPP)	4 to 20	plug Pg 9	24	348	100	1,450	060G1872
0 to 4	0 to 58	G1/2A (BSPP)	4 to 20	plug Pg 9	24	348	100	1,450	060G1873
0 to 6	0 to 87	G1/2A (BSPP)	4 to 20	plug Pg 9	60	870	100	1,450	060G1874
0 to 10	0 to 145	G1/2A (BSPP)	4 to 20	plug Pg 9	60	870	100	1,450	060G1875
0 to 16	0 to 232	G1/2A (BSPP)	4 to 20	plug Pg 9	150	2,175	150	2,175	060G1876
0 to 25	0 to 363	G1/2A (BSPP)	4 to 20	plug Pg 9	150	2,175	150	2,175	060G1877
0 to 40	0 to 580	G1/2A (BSPP)	4 to 20	plug Pg 9	300	4,350	400	5,800	060G1878
0 to 60	0 to 870	G1/2A (BSPP)	4 to 20	plug Pg 9	360	5,220	800	11,600	060G1879
0 to 160	0 to 2,320	G1/2A (BSPP)	4 to 20	plug Pg 9	1,200	17,400	1,200	17,400	060G1881
0 to 250	0 to 3,625	G1/2A (BSPP)	4 to 20	plug Pg 9	1,500	21,750	2,000	29,000	060G1882

MBS5100 / MBS5150



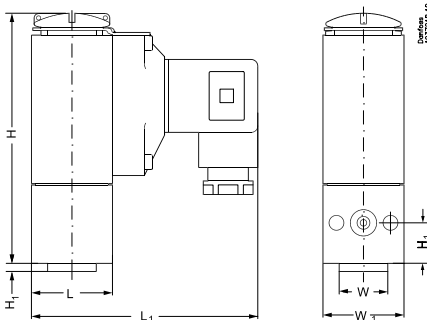
Block-type pressure transducers with ship approvals

- Available with all relevant marine approvals
- Millions of cycles, high overpressure and excellent long term stability
- Laser trimmed electronic circuit in thick film for improved accuracy and low thermal shifting
- Fully welded sensor: no internal O-rings and all housing and wetted parts in stainless steel (AISI 316L)
- Long term stability and reliability based on the very robust piezo-resistive technology
- Patented sealing against ingress of moisture
- High robustness against environmental influences
- Integrated pulse snubber minimizes the risk for break down due to cavitations, liquid hammer or pressure peaks in the system (MBS5150)
- Can be used with MBV5000 block valve (flange versions)



Technical data

Measuring Range	Pabs and Pe 0 to 1 bar (0 to 14.5 psi) to 0 to 600 bar (0 to 8700 psi)
Process connection	NPT, BSPP, UNF or metric
Output signal	4 to 20 mA
Supply voltage	10 to 30 V dc
Electrical connection	various plugs
Enclosure	IP 65 / NEMA 13
Operating temperature	-40° to 85°C (-40° to 185°F)



Dimensions and weight

H		L		W		H1	
mm	in	mm	in	mm	in	mm	in
91.44	3.6	30.48	1.2	30.48	1.2	3.05	0.12

H2		L1		W1		Weight	
mm	in	mm	in	mm	in	kg	lbs
14.99	0.59	83.82	3.3	20.07	0.79	0.40	0.88

Ordering - MBS5100

Pressure range		Process connection	Output signal	Electrical connection	Proof pressure		Burst pressure		Code no.
<i>bar</i>	<i>psi</i>				<i>max. bar</i>	<i>max. psi</i>	<i>max. bar</i>	<i>min. psi</i>	
0 to 1	0 to 14.5	G 1/4 (BSPP) w/flange	4 to 20	plug Pg 11	2	30	51.7	750	060N1032
0 to 2.5	0 to 36	G 1/4 (BSPP) w/flange	4 to 20	plug Pg 11	8.3	120	51.7	750	060N1033
0 to 4	0 to 58	G 1/4 (BSPP) w/flange	4 to 20	plug Pg 11	8.3	120	51.7	750	060N1034
0 to 6	0 to 87	G 1/4 (BSPP) w/flange	4 to 20	plug Pg 11	8.3	120	51.7	750	060N1035
0 to 10	0 to 145	G 1/4 (BSPP) w/flange	4 to 20	plug Pg 11	20.7	300	51.7	750	060N1036
0 to 16	0 to 232	G 1/4 (BSPP) w/flange	4 to 20	plug Pg 11	51.7	750	100	1,450	060N1037
0 to 25	0 to 362.5	G 1/4 (BSPP) w/flange	4 to 20	plug Pg 11	51.7	750	100	1,450	060N1038
0 to 40	0 to 580	G 1/4 (BSPP) w/flange	4 to 20	plug Pg 11	100	1,450	827.6	12,000	060N1039
0 to 60	0 to 870	G 1/4 (BSPP) w/flange	4 to 20	plug Pg 11	200	2,900	827.6	12,000	060N1040
0 to 100	0 to 1,450	G 1/4 (BSPP) w/flange	4 to 20	plug Pg 11	200	2,900	827.6	12,000	060N1041

Ordering - MBS5150

Versions with pulse snubber

Pressure range		Process connection	Output signal	Electrical connection	Proof pressure		Burst pressure		Code no.
<i>bar</i>	<i>psi</i>				<i>max. bar</i>	<i>max. [psi]</i>	<i>max. bar</i>	<i>min. [psi]</i>	
0 to 1	0 to 14.5	G 1/4 (BSPP) w/flange	4 to 20	plug Pg 11	2	30	51.7	750	060N1081
0 to 2.5	0 to 36	G 1/4 (BSPP) w/flange	4 to 20	plug Pg 11	8.3	120	51.7	750	060N1083
0 to 4	0 to 58	G 1/4 (BSPP) w/flange	4 to 20	plug Pg 11	8.3	120	51.7	750	060N1084
0 to 6	0 to 87	G 1/4 (BSPP) w/flange	4 to 20	plug Pg 11	8.3	120	51.7	750	060N1063
0 to 10	0 to 145	G 1/4 (BSPP) w/flange	4 to 20	plug Pg 11	20.7	300	51.7	750	060N1064
0 to 16	0 to 232	G 1/4 (BSPP) w/flange	4 to 20	plug Pg 11	51.7	750	100	1,450	060N1065
0 to 25	0 to 362.5	G 1/4 (BSPP) w/flange	4 to 20	plug Pg 11	51.7	750	100	1,450	060N1085
0 to 40	0 to 580	G 1/4 (BSPP) w/flange	4 to 20	plug Pg 11	100	1,450	827.6	12,000	060N1066
0 to 60	0 to 870	G 1/4 (BSPP) w/flange	4 to 20	plug Pg 11	200	2,900	827.6	12,000	060N1086
0 to 100	0 to 1,450	G 1/4 (BSPP) w/flange	4 to 20	plug Pg 11	200	2,900	827.6	12,000	060N1087

Accessories for pressure transducers



Description	Code no.
1) Plug with 1/2 - 14 NPT conduit	060G000812
2) Plug with 1.83m (6') cable	060G0009
3) Adaptor - G1/2A (BSPP) female, 1/4 - 18 NPT male	060G1027
4) Isolation valve - G1/2A (BSPP) female, 1/4 - 18 NPT male	061B0008
5) Plug-in display for 4 to 20 mA and plug (Pg9 or Pg11) versions	060G2850