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Danfoss Industrial Automation gives you fast access to one of the widest ranges of quality industrial controls available.

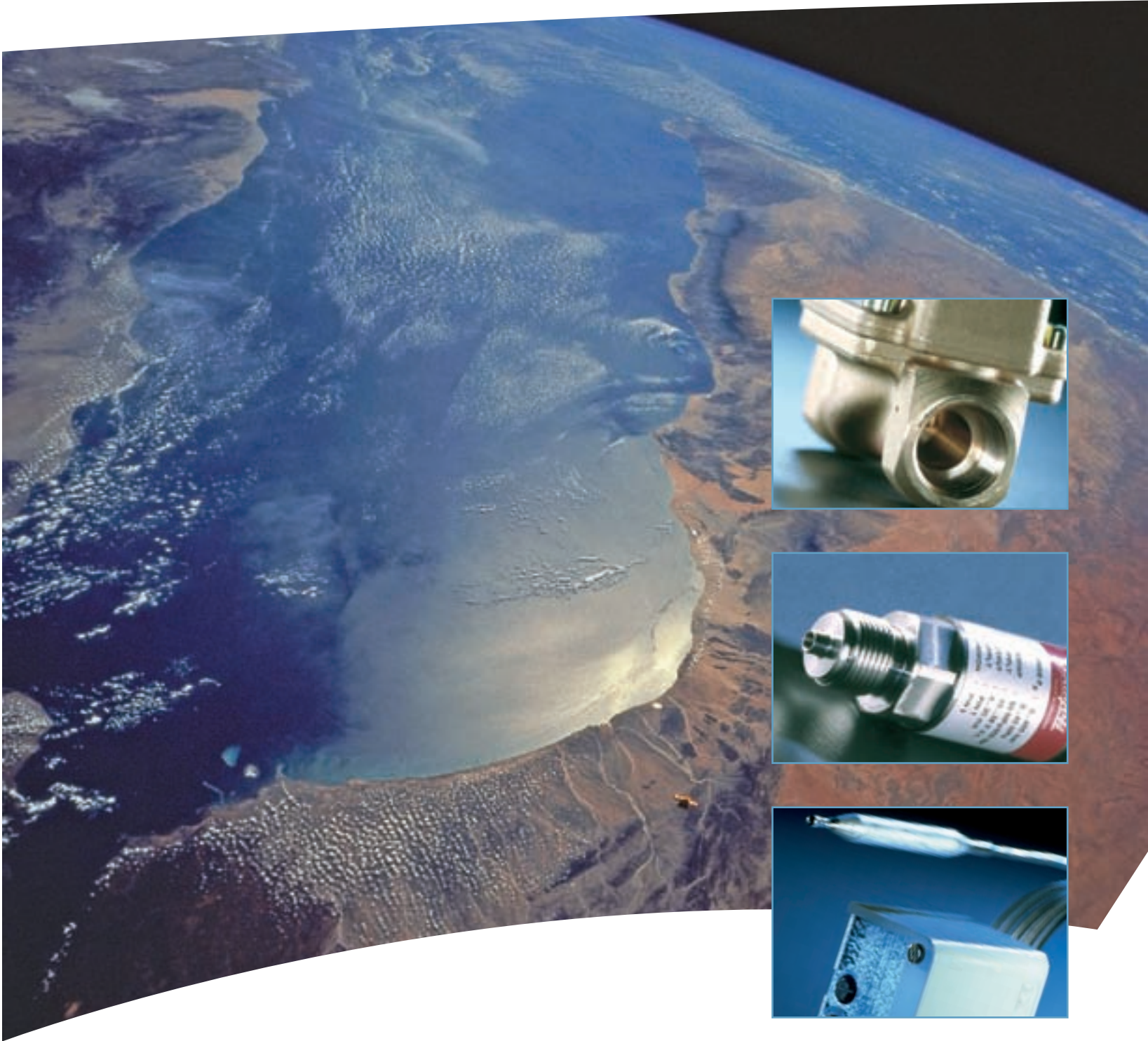
More and more customers are turning to us to improve productivity and lower total costs through our combination of value-added services and product line competencies. More specifically, our industrial monitoring and control technologies are based on the advanced pressure and temperature measure, electrical power and fluid control principles to assure higher accuracy, reliability and a longer life.

- Solenoid valves
- Externally operated valves
- Thermostatically operated valves
- Pressure and temperature switches
- Pressure transducers
- Temperature sensors and transducers

Our specialists can advise you on product selection and configuration.



Condensed Catalog 2006, North America



Condensed Catalog 2006 North America

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Use our website - the fastest route to product information, technical datasheet for download and much more on www.danfoss.com/usic. The site will guide you through to all the information you need.



Quality products you can rely on

The most demanding applications require the most reliable products. Customers around the world know that Danfoss means dependability. We have 70 years of experience in innovative product design and engineering expertise. Danfoss industrial controls are designed and manufactured for extreme conditions on marine diesel engines, mobile hydraulics, and water treatment applications.

This condensed catalog contains a summary of the standard range of pressure and temperature controls and industrial valves sold in the North American

market. The products you see in this catalog are backed by dependable Danfoss service and technical support through sales offices and distribution centers here and around the world.

Danfoss is a global company operating in more than 100 countries with modern, ISO certified factories on four continents, capable of producing more than 120,000 components per day.



Industrial valves

Pressure transducers

Pressure and temperature switches

Pressure test valves

Temperature sensors and transducers

Code number index

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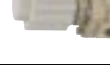
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Industrial valves



Industrial valves selection guide

Type Ordering information found in this catalog on page	Direct-operated				Servo-operated						Proportional	Externally operated	
	EV210B	EV310B	EV210A	EV310A	EV220B 6 - 22	EV220B 15 - 50	EV224B	EV250B	EV225B	EV220A	EV260B	AV210	AVTA
	6				8	10		14	12			20	22
													
Process connection	1/8" to 1/2" NPT or BSPP	1/8" to 3/8" BSPP or flange	1/8" to 1/4" BSPP or flange	1/8" to 1/4" BSPP or flange	1/4" to 1" NPT or BSPP	1/2" to 2" NPT or BSPP	1/2" to 2" NPT or BSPP	3/8" to 1" NPT or BSPP	1/4" to 1" NPT or BSPP	1/4" to 1" NPT or BSPP	1/4" to 3/4" NPT or BSPP	1/2" to 2" NPT or BSPP	1/2" to 2" NPT or BSPP
Function	NC or NO	NC or NO	NC or NO	NC or NO	NC or NO	NC or NO	NC or NO	NC or NO	NC	NC or NO	NC	NC or NO	Proportional
Orifice size	1.5 to 10mm (1/16" to 3/8")	1.5 to 3.5mm (1/16" to 9/64")	1.2 to 3.5mm (3/64" to 9/64")	1.2 to 2.0mm (3/64" to 5/64")	6.4 to 19.1mm (1/4" to 3/4")	14.3 to 50.8mm (9/16" to 2")	19 to 25.4mm (3/5" to 1")	9.5 to 25.4mm (3/8" to 1")	3.2 to 25.4mm (1/8" to 1")	6 to 22mm (15/64" to 7/8")	6.4 to 19.1mm (1/4" to 3/4")	12.7 to 50.8mm (1/2" to 2")	9.4 to 25.4mm to (2/5" to 1")
Flow factor	Kv=0.05 to 1.5 m3/hr (Cv=0.06 to 1.8 USGal/min)	Kv=0.08 to 0.4 m3/hr (Cv=0.09 to 0.47 USGal/min)	Kv=0.04 to 0.26 m3/hr (Cv=0.05 to 0.31 USGal/min)	Kv=0.04 to 0.08 m3/hr (Cv=0.05 to 0.09 USGal/min)	Kv=0.7 to 6 m3/hr (Cv=0.8 to 7 USGal/min)	Kv=4 to 40 m3/hr (Cv=4.7 to 46.8 USGal/min)	Kv=4 to 11 m3/hr (Cv=4.7 to 12.9 USGal/min)	Kv=2.5 to 7 m3/hr (Cv=2.9 to 8.2 USGal/min)	Kv=0.3 to 6 m3/hr (Cv=0.35 to 7 USGal/min)	Kv=1 to 7 m3/hr (Cv=1.18 to 8.24 USGal/min)	Kv=0.8 to 5.0 m3/hr (Cv=0.94 to 6.0 USGal/min)	Kv=5.7 to 74 m3/hr (Cv=6.7 to 86.6 USGal/min)	Kv=2.59 to 7.53 m3/hr (Cv=2.2 to 6.4 USGal/min)
Opening differential pressure	0 to 20 bar (0 to 290 psi)	0 to 20 bar (0 to 290 psi)	0 to 30 bar (0 to 435 psi)	0 to 20bar (0 to 290 psi)	0.1 to 10 bar (1.45 to 145 psi)	0.3 to 10 bar (4.35 to 145 psi)	0.3 to 40 bar (4.35 to 580 psi)	0 to 10 bar (0 to 145 psi)	0 to 10 bar (0 to 145 psi)	0.2 to 16 bar (2.9 to 232 psi)	0.5 to 10bar (7 to 145psi)	0 to 16 bar (0 to 232 psi)	0 to 10 bar (0 to 145 psi)
Media temperature	-10° to 90°C (14° to 194°F)	-10° to 100°C (14° to 212°F)	-30° to 120°C (-22° to 248°F)	-10° to 100°C (14° to 212°F)	-10° to 90°C (14° to 194°F)	-10° to 100°C (14° to 212°F)	-10° to 60°C (14° to 140°F)	-10° to 90°C (14° to 194°F)	Max. 184°C (364°F)	-22° to 100°C (14° to 212°F)	-10° to 80°C (14° to 176°F)	-30° to 180°C (-22 to 356°F)	-25° to 130°C (-13° to 266°F)
Valve body material	Brass or St. steel	Brass or St. steel	Brass or St. steel	Brass or St. steel	Brass or DZR Brass	Brass, DZR Brass or St. steel	Brass or St. steel	DZR Brass	DZR Brass	Brass	Brass	Bronze or St. steel	Brass or St. steel
Internal parts material	St. steel	St. steel	St. steel	St. steel	St. steel	St. steel	St. steel	St. steel	St. steel	St. steel	St. steel	St. steel	Brass or St. steel
Seal material****	EPDM or FKM	FKM	EPDM or FKM	FKM	EPDM, FKM or NBR	EPDM, FKM or NBR	EPDM, FKM or NBR	EPDM or FKM	PTFE	EPDM or FKM	PTFE	PTFE	EPDM or FKM
Approvals	CE, UL, CSA and Marine	CE	CE	CE	CE, UL, CSA and Marine	CE, UL, CSA and Marine	CE	CE, UL and Marine	CE, UL and Marine	CE	CE	CE	CE
Can be used together with:													
Coil type	BA** BT, BU or BY**	BA**	AB** AC** AK** AM** or AP**	AB** AC** AK** or AM	BA, BT, BU or BY**	BA, BT, BU or BY**	BT, BU or BY**	BT, BU or BY**	BR, BT or BU	AB** AK** AM** or AP**	BK, BK or BM		

** Requires DIN connector

Medium	EDPM***	FKM***	NBR***	PTFE***
Water/glycols	-30° to 140°C (-22° to 284°F)	0° to 60°C 0° to 100°C (32° to 140°F, 32° to 212°F)	-10° to 90°C (14° to 194°F)	
Oil		0° to 100°C (32° to 212°F)	-10° to 90°C (14° to 194°F)	
Air		0° to 100°C (32° to 212°F)	-10° to 90°C (14° to 194°F)	
Steam	<140°C (284°F)			<185°C (365°F)

EV210B



Direct-operated 2/2-way solenoid valves

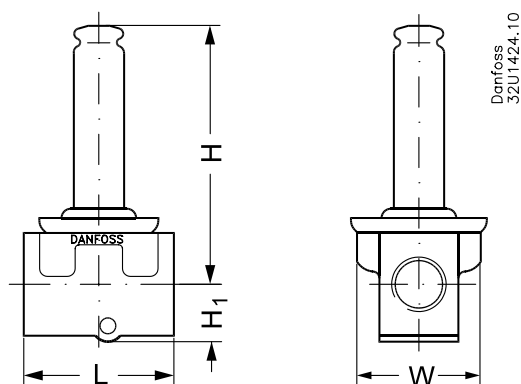
- Normally closed (NC) and normally open (NO) versions
- High opening degree at zero or low differential pressures
- Increased performance without increasing the coil power
- Long lifetime
- Insensitive to dirt
- Increased resistance against corrosion and cavitation with stainless steel version
- Isolating diaphragm available as accessory for secure opening and closure



Technical data

Opening differential pressure	0-20 bar (0 to 290 psi)
Ambient temperature	50°C (120°F)
Media temperature	-10° to 90°C (14° to 194 °F)
Orifice sizes	1.5 to 10mm (1/16" to 3/8")
Process connection	1/8" to 1/2" NPT or BSPP
Body material	Brass or Stainless Steel
Seal material	EPDM or FKM
Enclosure	Up to IP67 / NEMA 6 (depending on coil and connector)

Dimensions and weight



Type	H (NC)		H (NO)		W	
	mm	in	mm	in	mm	in
EV210B 1.5 (1/8" connection)	71.2	2.8	76.2	3.0	33.0	1.3
EV210B 1.5 (1/4" connection)	71.2	2.8	76.2	3.0	33.0	1.3
EV210B 2	71.2	2.8	-	-	33.0	1.3
EV210B 3	71.2	2.8	76.2	3.0	33.0	1.3
EV210B 6	73.7	2.9	-	-	43.2	1.7
EV210B 10	76.2	3.0	-	-	49.3	1.9

Type	L		H1		Weight	
	mm	in	mm	in	kg	lbs
EV210B 1.5 (1/8" connection)	35.6	1.4	12.7	0.5	0.14	0.3
EV210B 1.5 (1/4" connection)	38.1	1.5	12.7	0.5	0.14	0.3
EV210B 2	35.6	1.4	12.7	0.5	0.14	0.3
EV210B 3	40.6	1.6	12.7	0.5	0.18	0.4
EV210B 6	45.7	1.8	12.7	0.5	0.23	0.5
EV210B 10	58.4	2.3	12.7	0.5	0.27	0.6

Ordering - EV210B

Versions normally closed

Type	Process Connection	Orifice size		Flow factor		Opening differential pressure		Code no.**
		mm	in	Kv (m ³ / hr)	CV (US Gal/min)	bar	psi	
EV210B 1.5	1/8 - 27 NPT	1.5	1/16	0.05	0.06	0 to 20	0 to 284	032U6501
EV210B 1.5	1/4 - 14 NPT	1.5	1/16	0.05	0.06	0 to 20	0 to 284	032U6502
EV210B 2	1/8 - 27 NPT	2	1/12	0.15	0.18	0 to 20	0 to 284	032U6503
EV210B 3	1/4 - 14 NPT	3	1/8	0.3	0.35	0 to 20	0 to 284	032U6505
EV210B 3	3/8 - 18 NPT	3	1/8	0.3	0.35	0 to 20	0 to 284	032U6506
EV210B 6	3/8 - 18 NPT	6	1/4	0.7	0.82	0 to 1.2	0 to 17	032U6565
EV210B 10	1/2 - 14 NPT	10	3/8	1.5	1.80	0 to 1.8	0 to 11	032U6567

Ordering - EV210B

Versions normally open

Type	Process Connection	Orifice size		Flow factor		Opening differential pressure		Code no.**
		mm	in	Kv (m ³ / hr)	CV (US Gal/min)	bar	psi	
EV210B 1.5	1/8 - 27 NPT	1.5	1/16	0.05	0.06	0 to 20	0 to 284	032U6509
EV210B 3	1/4 - 14 NPT	3	1/8	0.3	0.35	0 to 6	0 to 85	032U6511

** Valve typically ordered with coil and connector (see page 18-19))

EV220B 6-22



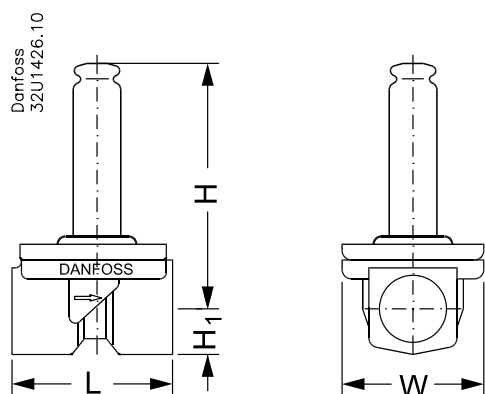
Servo-operated 2/2-way solenoid valves

- The best water hammer damped solenoid valve
- Normally closed (NC) and normally open (NO) versions
- Long lifetime
- Insensitive to dirt
- Broad range of different body and sealing materials
- Temperature range from brine to steam
- Good external tightness even at high differential pressures



Technical data

Opening differential pressure	0.1 to 10 bar (1.45 to 142 psi)
Ambient temperature	80°C (176 °F)
Media temperature	-10° to 90°C (14° to 194°F)
Orifice sizes	6 to 22mm (1/4" to 3/4")
Process connection	1/4" to 1" NPT or BSPP
Body material	Brass or Dezincification Resistant Brass (DZR)
Seal material	EPDM or FKM
Enclosure	Up to IP67 / NEMA 6 (depending on coil and connector)



Dimensions and weight

Type	H (NC)		H (NO)		W	
	mm	in	mm	in	mm	in
EV220B 6	73.7	2.9	78.8	3.1	43.2	1.7
EV220B 10	76.2	3.0	81.3	3.2	48.3	1.9
EV220B 12	76.2	3.0	-	-	53.3	2.1
EV220B 18	83.8	3.3	-	-	61.0	2.4
EV220B 22	99.1	3.9	-	-	61.0	2.4

Type	L		H1		Weight	
	mm	in	mm	in	kg	lbs
EV220B 6	45.7	1.8	12.7	0.5	0.23	0.5
EV220B 10	50.8	2.0	12.7	0.5	0.27	0.6
EV220B 12	58.4	2.3	12.7	0.5	0.36	0.8
EV220B 18	76.2	3.5	17.8	0.7	0.64	1.4
EV220B 22	76.2	3.5	17.8	0.7	0.64	1.4

Ordering - EV220B 6-22

Versions normally closed

Type	Connection	Orifice size		Flow factor		Opening differential pressure		Code no.**	Code no.**
		mm	in	Kv (m ³ /hr)	Cv (US gal/min)	bar	psi	EPDM	FKM
EV220B 6	1/4 - 18 NPT	6	1/4	0.7	0.8	0.1 to 10	1.45 to 145	032U6513	032U6515
EV220B 6	3/8 - 18 NPT	6	1/4	0.7	0.8	0.1 to 10	1.45 to 145	032U6514	032U6516
EV220B 10	3/8 - 18 NPT	10	3/8	1.5	1.7	0.1 to 10	1.45 to 145	032U6517	032U6519
EV220B 10	1/2 - 14 NPT	10	3/8	1.5	1.7	0.1 to 10	1.45 to 145	032U6518	032U6520
EV220B 12	1/2 - 14 NPT	12	1/2	2.5	2.9	0.3 to 10	4.35 to 145	032U6521	032U6522
EV220B 18	3/4 - 14 NPT	18	3/4	6	7	0.3 to 10	4.35 to 145	032U6523	032U6524
EV220B 22	1 - 11 1/2 NPT	22	7/8	6	7	0.3 to 10	4.35 to 145	032U6525	032U6526

Ordering - EV220B 6-22

Versions normally open

Type	Connection	Orifice size		Flow factor		Opening differential pressure		Code no.	Code no.
		mm	in	Kv (m ³ /hr)	Cv (US gal/min)	bar	psi	EPDM	FKM
EV220B 6	3/8 - 18 NPT	6	1/4	0.7	0.8	0.1 to 10	1.45 to 145	032U6528	032U6529
EV220B 10	1/2 - 14 NPT	10	3/8	0.7	0.8	0.1 to 10	1.45 to 145	-	032U6530

** Valve typically ordered with coil and connector (see page 18-19)

EV220B 15-50



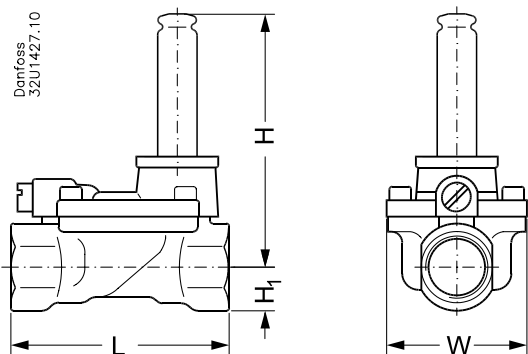
Servo-operated 2/2-way solenoid valves

- The best water hammer damped solenoid valve
- Normally closed (NC) and normally open (NO) versions
- Long lifetime
- Insensitive to dirt
- Broad range of different body and sealing materials
- Temperature range from brine to steam
- Broad range of standard options that include: isolating diaphragm, manual-operating unit and adjustable equalizing orifice
- Good external tightness even at high differential pressures



Technical data

Opening differential pressure	0.3 to 10 bar (4.35 to 145 psi)
Ambient temperature	80°C (176°F)
Media temperature	-10° to 120°C (14° to 248 °F)
Orifice sizes	15 to 50 mm (9/16" to 2")
Process connection	1/2" to 2" NPT or BSPP
Body material	Brass, Dezincification Resistant Brass (DZR), Bronze (EV220B 50) or Stainless Steel
Seal material	EPDM, FKM or NBR
Enclosure	Up to IP67 / NEMA 6 (depending on coil and connector)



Dimensions and weight

Type	H		W		L	
	mm	in	mm	in	mm	in
EV220B 15	94.0	3.7	50.8	2.0	86.4	3.4
EV220B 20	99.1	3.9	58.4	2.3	94.0	3.7
EV220B 25	109.2	4.3	71.1	2.8	111.8	4.4
EV220B 32	114.3	4.5	81.3	3.2	121.9	4.8
EV220B 40	124.5	4.9	94.0	3.7	132.1	5.2
EV220B 50	129.5	5.1	111.8	4.4	162.6	6.4

Type	H1		Weight	
	mm	in	kg	lbs
EV220B 15	15.2	0.6	0.81	1.8
EV220B 20	17.8	0.7	1.0	2.2
EV220B 25	22.9	0.9	1.41	3.1
EV220B 32	27.9	1.1	2.0	4.4
EV220B 40	33.0	1.3	3.22	7.1
EV220B 50	38.1	1.5	4.31	9.5

Ordering - EV220B 15-50

Versions with EPDM seal material

Type	Process Connection	Orifice size		Flow factor		Opening differential pressure		Code no.**	Code no.**	Code no.**
		mm	in	Kv (m ³ /hr)	Cv (US Gal/min)	bar	psi	NC, Brass	NO, Brass	NC, St. Steel
EV220B 15	1/2 - 14 NPT	15	9/16	4	4.7	0.3 to 10	4.35 to 145	032U6532	032U6544	032U8550
EV220B 20	3/4 - 14 NPT	20	3/4	8	9.4	0.3 to 10	4.35 to 145	032U6533	032U6545	032U8551
EV220B 25	1 - 11 1/2 NPT	25	1	11	12.3	0.3 to 10	4.35 to 145	032U6534	032U6546	032U8552
EV220B 32	1 1/4 - 11 1/2 NPT	32	1 1/4	18	21	0.3 to 10	4.35 to 145	032U6535	032U6547	032U8553
EV220B 40	1 1/2 - 11 1/2 NPT	40	1 1/2	24	28	0.3 to 10	4.35 to 145	032U6536	032U6548	032U8554
EV220B 50	2 - 11 1/2 NPT	50	2	40	46.8	0.3 to 10	4.35 to 145	032U6537	032U6549	032U8555

Ordering - EV220B 15-50

Versions with FKM seal material

Type	Process Connection	Orifice size		Flow factor		Opening differential pressure		Code no.**	Code no.**	Code no.**
		mm	in	Kv (m ³ /hr)	Cv (US Gal/min)	bar	psi	NC, Brass	NO, Brass	NC, St. Steel
EV220B 15	1/2 - 14 NPT	15	9/16	4	4.7	0.3 to 10	4.35 to 145	032U6538	032U6550	032U8556
EV220B 20	3/4 - 14 NPT	20	3/4	8	9.4	0.3 to 10	4.35 to 145	032U6539	032U6551	032U8557
EV220B 25	1 - 11 1/2 NPT	25	1	11	12.3	0.3 to 10	4.35 to 145	032U6540	032U6552	032U8558
EV220B 32	1 1/4 - 11 1/2 NPT	32	1 1/4	18	21	0.3 to 10	4.35 to 145	032U6541	032U6553	032U8559
EV220B 40	1 1/2 - 11 1/2 NPT	40	1 1/2	24	28	0.3 to 10	4.35 to 145	032U6542	032U6554	032U8560
EV220B 50	2 - 11 1/2 NPT	50	2	40	46.8	0.3 to 10	4.35 to 145	032U6543	032U6555	032U8561

** Valve typically ordered with coil and connector (see page 18-19)

EV225B



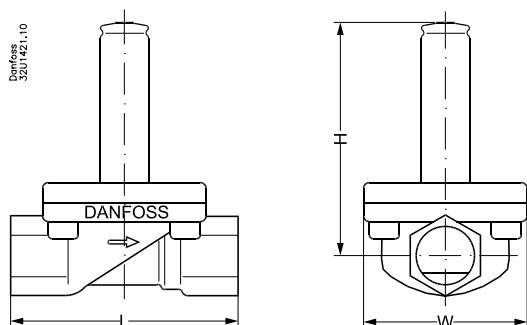
Servo-operated 2/2-way solenoid valves for steam

- Superior in design and performance of big and expensive piston/cylinder design
- No sticking caused by an ordinary piston/cylinder design
- No breakdown caused by aggressive steam produced from technical water
- No internal leakages caused by broken down seats
- No external leakages caused by ordinary sealing material



Technical data

Opening differential pressure	0.2 to 10 bar (2.9 to 145 psi)
Ambient temperature	40°C (104 °F)
Media temperature	184°C (364°F)
Orifice sizes	6 to 25mm (1/4" to 1")
Process connection	1/4" to 1" NPT or BSPP
Body material	Dezincification Resistant Brass (DZR)
Seal material	PTFE
Enclosure	Up to IP67 / NEMA 6 (depending on coil and connector)



Dimensions and weight

Type	H		W		L		Weight	
	mm	in	mm	in	mm	in	kg	lbs
EV225B 6	0.13	3.4	0.07	1.8	0.09	2.4	0.36	0.8
EV225B 10	0.13	3.4	0.07	1.8	0.09	2.4	0.41	0.9
EV225B 15	0.14	3.5	0.09	2.2	0.13	3.2	0.54	1.2
EV225B 20	0.15	3.7	0.11	2.8	0.15	3.9	1.0	2.2
EV225B 25	0.16	4.1	0.11	2.8	0.17	4.2	2.72	3.0

Ordering - EV225B

Type	Process Connection	Orifice size		Flow factor		Opening differential pressure		Code no.**
		mm	in	Kv (m ³ /hr)	Cv (US Gal/min)	bar	psi	
EV215B 3	1/8 - 27 NPT	3	1/8	0.3	0.35	0 to 10	0 to 145	032U3688
EV225B 6	1/4 - 18 NPT	6	1/4	0.9	1.05	0.2 to 10	2.9 to 145	032U3689
EV225B 10	3/8 - 18 NPT	10	3/8	2.2	2.6	0.2 to 10	2.9 to 145	032U3690
EV225B 10	1/2 - 14 NPT	10	3/8	2.2	2.6	0.2 to 10	2.9 to 145	032U3691
EV225B 15	1/2 - 14 NPT	15	9/16	3.0	3.5	0.2 to 10	2.9 to 145	032U3692
EV225B 20	3/4 - 14 NPT	20	3/4	5.0	5.9	0.2 to 10	2.9 to 145	032U3693
EV225B 25	1 - 11 1/2 NPT	25	1	6.0	7	0.2 to 10	2.9 to 145	032U3694

** Valve typically ordered with coil and connector (see page 18-19)

EV250B



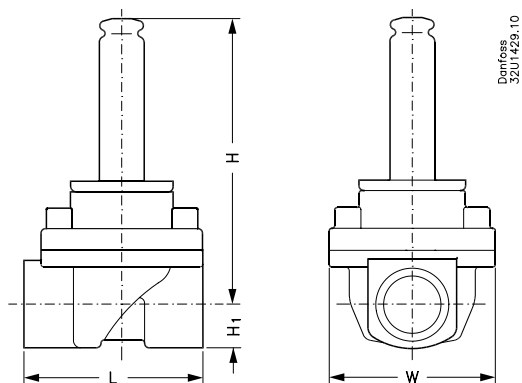
Assisted lift operated 2/2-way solenoid valves

- Optimum water hammer damped solenoid valve
- High opening degree at zero or low differential pressures
- The easy choice if you don't have any pressure information
- Especially applicable for aggressive low-pressure steam
- Good external tightness even at high differential pressures



Technical data

Opening differential pressure	0 to 10 bar (0 to 145 psi)
Ambient temperature:	80°C (176 °F)
Media temperature	-10° to 90°C (14° to 194 °F)
Orifice sizes	10 to 22mm (3/8" to 1")
Process connection	1/2" to 1" NPT or BSPP
Body material	Dezincification Resistant Brass (DZR)
Seal material	EPDM or FKM



Dimensions and weight

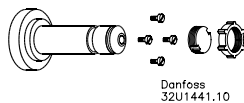
Type	H		W		L		H1		Weight	
	mm	in	mm	in	mm	in	mm	in	kg	lbs
EV250B 10BD	66.0	2.6	50.8	2.0	58.4	2.3	12.7	0.5	0.59	1.3
EV250B 12BD	76.2	3.0	50.8	2.0	61.0	2.4	12.7	0.5	0.59	1.3
EV250B 18BD	83.8	3.3	55.9	2.2	91.4	3.6	17.8	0.7	0.82	1.8
EV250B 22BD	91.4	3.6	63.5	2.5	88.9	3.5	22.9	0.9	1.09	2.4

Ordering - EV250B

Type	Process Connection	Orifice size		Flow factor		Operating differential pressure		Code no.**	Code no.**
		mm	in	Kv (m ³ /hr)	Cv (US Gal/min)	bar	psi	EPDM	FKM
EV250B 10BD	3/8 - 18 NPT	9.5	3/8	2.5	2.9	0 to 10	0 to 145	032U5260	032U5261
EV250B 12BD	1/2 - 14 NPT	12	1/2	4	4.7	0 to 10	0 to 145	032U5262	032U5263
EV250B 18BD	3/4 - 14 NPT	18	3/4	6	7.0	0 to 10	0 to 145	032U5264	032U5265
EV250B 22BD	1 - 11 1/2 NPT	22	1	7	8.2	0 to 10	0 to 145	032U5266	032U5267

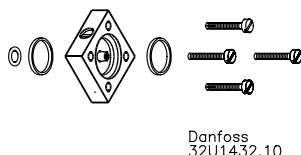
** Valve typically ordered with coil and connector (see page 18-19)

Accessories and spare part kits for solenoid valves



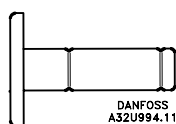
Isolating diaphragm kits for EV210B and EV220B

Seal material	Code no.
EPDM	042U1009
FKM	042U1010



Manual override kits for EV210B and EV220B

Material	Code no.
Brass	032U0150
St. Steel	032U0149



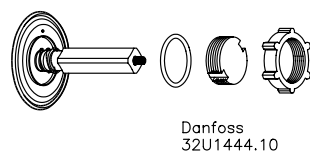
Assembled Normally Open (NO) units for EV210B and EV220B

Seal material	Code no.
EPDM	032U2005
FKM	032U2004



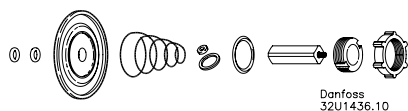
For EV210B

Type	Code no.	Code no.
	FKM	EPDM
EV210B 1.5, 2 and 3	032U2003	032U6000
EV210B 6 and 10	032U2011	032U2006
EV210B 1.5 NO and 3 NO	032U2004	032U2005



For EV220B 6-22

Type	Code no.	Code no.
	EPDM	FKM
EV220B 6	032U1062	032U1063
EV220B 10	032U1065	032U1066
EV220B 12	032U1068	032U1067
EV220B 18 and 22	032U1070	032U1069

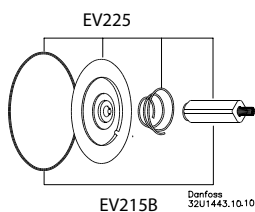


For EV220B 15-50

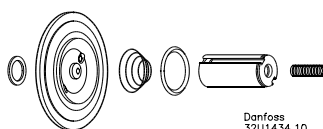
Type	Code no.	Code no.	Code no.	Code no.
	EPDM	FKM	EPDM	FKM
	Brass	Brass	St. Steel or DZR brass	St. Steel or DZR brass
EV220B 15	032U1071	032U1072	032U6320	032U6326
EV220B 20	032U1073	032U1074	032U6321	032U6327
EV220B 25	032U1075	032U1076	032U6322	032U6328
EV220B 32	032U1077	032U1078	032U6323	032U6329
EV220B 40	032U1079	032U1080	032U6324	032U6330
EV220B 50	032U1081	032U1082	032U6325	032U6331

Spare part kits for solenoid valves

For EV215B and EV225B

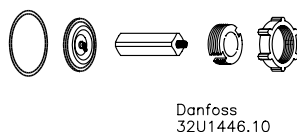


Type	Code no.
EV215B 3	032U3170
EV225B 6 and 10	032U3171
EV225B 15	032U3172
EV225B 20 and 25	032U3173



For EV220A

Type	Code no.	Code no.	Code no.
	EPDM	NBR	FKM
EV220A 6B and 10B	042U1000	042U1001	042U1002
EV220A 12B and 14B	042U1003	042U1004	042U1005
EV220A 18B and 22B	042U1006	042U1007	042U1008



For EV250B

Type	Code no.	Code no.
	EPDM	FKM
EV250B 10 and 12	032U5277	032U5278
EV250B 18 and 22	032U5279	032U5280

Coils for solenoid valves



BT (junction box)

for EV210B, EV215B, EV220B, EV225B and EV250B

Voltage	Frequency	Ambient temperature		Power consumption	Enclosure	Code no.
<i>V_{ac}</i>	<i>Hz</i>	°C	°F	<i>W</i>	<i>IP / NEMA</i>	
24	50 / 60	-40 to 50	-40 to 122	17.5	30 / 2	018F7683
110	50 / 60	-40 to 50	-40 to 122	17.5	30 / 2	018F7682
120	60	-40 to 50	-40 to 122	17.5	30 / 2	
208 to 240	60	-40 to 50	-40 to 122	17.5	30 / 2	018F7681
230	50	-40 to 50	-40 to 122	17.5	30 / 2	



BU (conduit boss)

for EV210B, EV215B, EV220B, EV225B and EV250B

Voltage	Frequency	Ambient temperature		Power consumption.	Enclosure	Code no.
<i>V_{ac}</i>	<i>Hz</i>	°C	°F	<i>W</i>	<i>IP / NEMA</i>	
24	50 / 60	-40 to 50	-40 to 122	17.5	66 / 4	018F7693
110	50 / 60	-40 to 50	-40 to 122	17.5	66 / 4	018F7692
120	60	-40 to 50	-40 to 122	17.5	66 / 4	
208 to 240	60	-40 to 50	-40 to 122	17.5	66 / 4	018F7691
230	50	-40 to 50	-40 to 122	17.5	66 / 4	



BY (clip-on)

for EV210B, EV220B and EV250B

Voltage	Frequency	Ambient temperature		Power consumption	Enclosure	Code no.
<i>V_{ac}</i>	<i>Hz</i>	°C	°F	<i>W</i>	<i>IP / NEMA</i>	
24	50 / 60	-40 to 50	-40 to 122	14	66 / 4	018F7655
110	50 / 60	-40 to 50	-40 to 122	14	66 / 4	018F7663
230	50	-40 to 50	-40 to 122	14	66 / 4	018F7658
208 to 240	60	-40 to 50	-40 to 122	14	66 / 4	

Coils for solenoid valves



BA (direct current)

for EV210B, EV220B and EV250B

Voltage	Power consumption	Ambient temperature		Enclosure	Code no.
VDC	W	max. °C	max. °F	IP / NEMA	
12	15	50	104	66 / 4	042N7550
24	15	50	104	66 / 4	042N7551



BE (direct current)

for EV210B, EV220B and EV250B

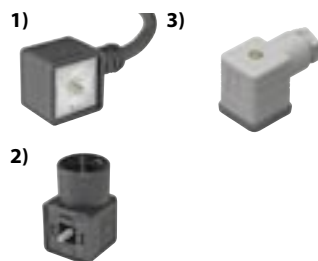
Voltage	Power cons.	Ambient temperature		Enclosure	Code no.
VDC	W	max. °C	max. °F	IP / NEMA	
12	18	50	122	67 / 6	042N6756
24	18	50	122	67 / 6	042N6757



BR (direct current for steam)

for EV215B and EV225B

Voltage	Power cons.	Ambient temperature		Enclosure	Code no.
VDC	W	max. °C	max. °F	IP / NEMA	
24	17	40	104	54 / 2	032K140902



Connectors for coils

for BY and BA coils

Description	Enclosure	Code no.
	IP / NEMA	
1) Plug with 1.22 m (4') cable	65 / 13	042N0120
2) Plug with 1/2 - 14 NPT conduit	65 / 13	042N0154
3) Plug Pg 11	65 / 13	042N0156

AV210



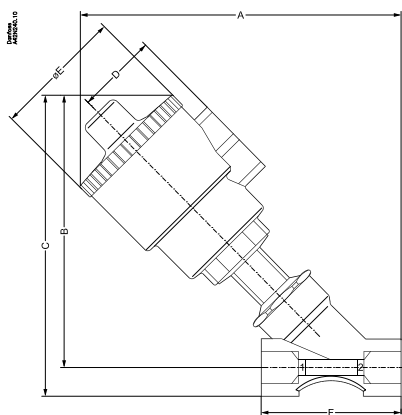
Angle seated externally operated valves

- Insensitive to dirt - the troubleshooter valve
- Normally closed (NC) and normally open (NO) versions
- Insensitive to media pressures and viscosity
- Wide temperature range
- Good internal tightness even at high differential pressures
- Reliable and unique design



Technical data

Pressure range	0 to 16 bar (0 to 232 psi)
Media temperature	-30° to 180°C (-22° to 356°F)
Orifice sizes	15 to 50mm (9/16" to 2")
Process connection	1/2" to 2" NPT or BSPP
Body material	Bronze or Stainless Steel
Seal material	PTFE



Dimensions and weight

Type	A		B		C		D	
	cm	in	cm	in	cm	in	cm	in
AV210B 15	16.4	6.4	13.97	5.5	15.24	6.0	4.32	1.7
AV210B 20	17.27	6.8	14.73	5.8	16.26	6.4	4.32	1.7
AV210C 25	20.57	8.1	17.53	6.9	19.56	7.7	5.08	2.0
AV210D 32	25.4	10.0	22.10	8.7	24.38	9.6	6.60	2.6
AV210D 40	26.92	10.6	23.62	9.3	26.42	10.4	6.60	2.6
AV210E 50	31.50	12.4	27.69	10.9	30.99	12.2	7.62	3.0

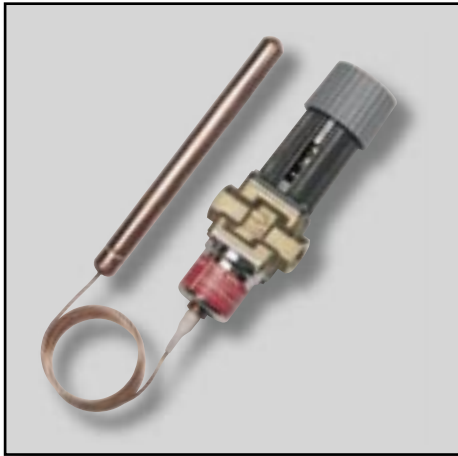
Type	Ø E		F		Weight	
	cm	in	cm	in	kg	lbs
AV210B 15	7.11	2.8	6.60	2.6	1.0	2.2
AV210B 20	7.11	2.8	7.62	3.0	1.04	2.6
AV210C 25	8.38	3.3	8.89	3.5	1.59	3.5
AV210D 32	11.68	4.6	10.92	4.3	2.99	6.6
AV210D 40	11.68	4.6	11.94	4.7	3.40	7.5
AV210E 50	13.97	5.5	14.99	5.9	5.31	11.7

Ordering - AV210

Versions normally closed

Type	Process connection	Orifice size		Flow factor		Differential pressure range		Code no.	Code no.
		mm	in	Kv (m ³ /hr)	Cv (US Gal/min)	bar	psi	Bronze	St. Steel
AV210B 15	1/2 - 14 NPT	15	9/16	5.7	6.7	0 to 16	0 to 232	042N4503	042N4551
AV210B 20	3/4 - 14 NPT	20	3/4	10	11.7	0 to 10	0 to 145	042N4504	042N4552
AV210C 25	1 - 11 1/2 NPT	25	1	20	23.4	0 to 11	0 to 160	042N4506	042N4554
AV210D 32	1 1/4 - 11 1/2 NPT	32	1 1/4	29	33.9	0 to 14	0 to 203	042N4508	042N4556
AV210D 40	1 1/2 - 11 1/2 NPT	40	1 1/2	46	53.8	0 to 11	0 to 160	042N4509	042N4557
AV210E 50	2 - 11 1/2 NPT	50	2	74	86.6	0 to 10	0 to 145	042N4511	042N4559

AVTA



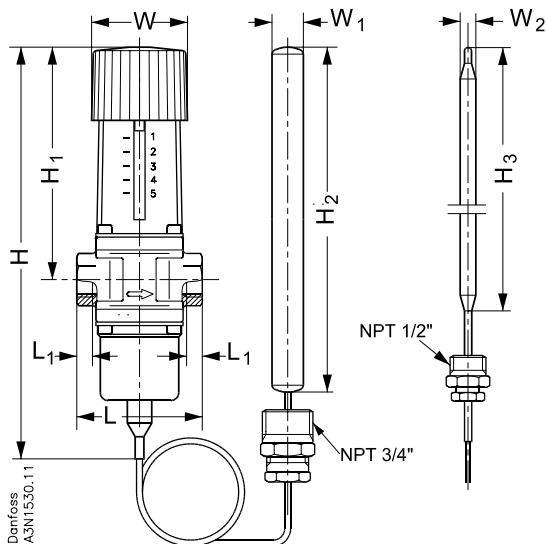
Thermostatically operated valves with capillary sensor

- Self acting - needs no electricity
- Exact temperature control
- Insensitive to dirt - the reliable fit and forget valve
- Insensitive to pressures
- From zero differential pressure
- Good external tightness even at high differential pressures
- Broad range of different body materials, connections and temperatures



Technical data

Media temperature	-25° to 130°C (-13° to 266°F)
Orifice sizes	15 to 25mm (9/16" to 1")
Process connection	1/2" to 1" NPT or BSPP
Body material	Brass or Stainless Steel
Charge type	Universal, adsorption or mass



Dimensions and weight

Type	H		H1		H2		H3		W	
	cm	in	cm	in	cm	in	cm	in	cm	in
AVTA 15	24.13	9.5	13.21	5.2	21.01	8.27	16.0/19.05	6.3/7.5	5.59	2.2
AVTA 20	24.13	9.5	13.21	5.2	21.01	8.27	16.0/19.05	6.3/7.5	5.59	2.2
AVTA 25	25.14	9.9	13.72	5.4	21.01	8.27	16.0/19.05	6.3/7.5	5.59	2.2

Type	W1		W2		L		L1		Weight	
	cm	in	cm	in	cm	in	cm	in	kg	lbs
AVTA 15	1.78	0.7	0.94	0.37	7.11	2.8	1.52	0.6	1.45	3.2
AVTA 20	1.78	0.7	0.94	0.37	9.14	3.6	1.52	0.6	1.50	3.3
AVTA 25	1.78	0.7	0.94	0.37	9.50	3.74	1.52	0.8	1.63	3.6

Ordering - AVTA

Versions with universal charge type, capillary tube length equals 2.01m (6'6")

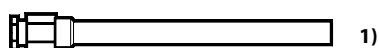
Type	Process Connection	Regulation range		Sensor temperature		Orifice size		Flow factor		Code no.
		°C	°F	max °C	max °F	mm	in	Kv (m³/hr)	Cv (US Gal/min)	
AVTA 15	1/2 - 14 NPT	0 to 30	32 to 86	57	135	15	9/16	1.87	2.2	003N6132
AVTA 20	3/4 - 14 NPT	0 to 30	32 to 86	57	135	20	3/4	3.4	4	003N7132
AVTA 25	1 - 11 1/2 NPT	0 to 30	32 to 86	57	135	25	1	5.44	6.4	003N8132
AVTA 15	1/2 - 14 NPT	25 to 65	77 to 149	90	194	15	9/16	1.87	2.2	003N6262
AVTA 20	3/4 - 14 NPT	25 to 65	77 to 149	90	194	20	3/4	3.4	4	003N7162
AVTA 25	1 - 11 1/2 NPT	25 to 65	77 to 149	90	194	25	1	5.44	6.4	003N8162
AVTA 15	1/2 - 14 NPT	50 to 90	122 to 194	125	257	15	9/16	1.87	2.2	003N6182
AVTA 20	3/4 - 14 NPT	50 to 90	122 to 194	125	257	20	3/4	3.4	4	003N7182
AVTA 25	1 - 11 1/2 NPT	50 to 90	122 to 194	125	257	25	1	5.44	6.4	003N8182

Ordering - AVTA

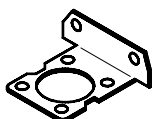
Versions with adsorption charge type, capillary tube length equals 2.32m (7'6")

Type	Process Connection	Regulation range		Sensor temperature		Orifice size		Flow factor		Code no.
		°C	°F	max °C	max °F	mm	in	Kv (m³/hr)	Cv (US Gal/min)	
AVTA 15	1/2 - 14 NPT	10 to 80	50 to 176	130	266	15	9/16	1.87	2.2	003N6115
AVTA 20	3/4 - 14 NPT	10 to 80	50 to 176	130	266	20	3/4	3.4	4	003N7120
AVTA 25	1 - 11 1/2 NPT	10 to 80	50 to 176	130	266	25	1	5.44	6.4	003N8125

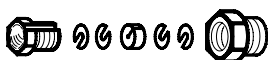
Accessories and spare parts for AVTA



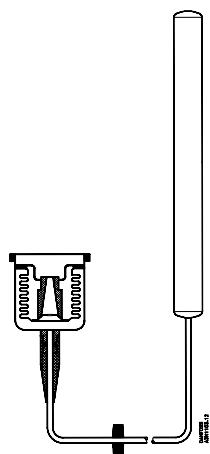
1)



2)



3)



4)

1) Sensor pocket, Ø0.7", 3/4 - 14 NPT	Brass	003N0051
1) Sensor pocket, Ø0.7", 3/4 - 14 NPT	Stainless Steel	003N0053
2) Mounting bracket	-	003N0388
3) Capillary tube gland	1/2 - 14 NPT	003N0157
3) Capillary tube gland	3/4 - 14 NPT	003N0056

4) service elements

Sensor charge	Regulation range		Capillary tube length		Code no.
	°C	°F	m	ft	
Adsorption	10 to 80	50 to 176	2.32	7.5	003N0278
Universal	0 to 30	32 to 86	2.01	6.5	003N0075
Universal	0 to 30	32 to 86	5.03	16.42	003N0077
Universal	25 to 65	77 to 149	2.01	6.5	003N0078
Universal	25 to 65	77 to 149	5.03	16.42	003N0080
Universal	25 to 65	77 to 149	2.01 armoured	6.5 armoured	003N0063
Universal	25 to 65	77 to 149	3.05	10	003N0079
Universal	50 to 90	122 to 194	2.01	6.5	003N0062
Mass	0 to 30	32 to 86	2.01	6.5	003N0066
Mass	25 to 65	77 to 149	2.01	6.5	003N0091
Mass	25 to 65	77 to 149	5.03	16.42	003N0068

Pressure transducers



Pressure transducers selection guide

Type	MBS 32 MBS 33	MBS 3000	MBS 3200	MBS 4500	MBS 33M	MBS 3100	MBS 5100	EMP 2	MBS 4010	MBS 4510	MBS 4701	MBS 8200	MBS 9200	MBS 6000 MBS 6100 (Common Rail)	MBS 3207
Types with pulse snubber	MBS 2050	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	28				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 25 bar (-14.5 to 21.75 psi -0 to 362.5 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	ratimetric	4 to 20 mA, voltage	4 to 20 mA	4 to 20 mA	4 to 20 mA	4 to 20 mA, voltage, or ratimetric	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 ratimetric	4 to 20 mA, voltage, or ratimetric	4 to 20 mA, voltage, or ratimetric	CAN open
Process connection	NPT, BSPP, UNF or Metric	NPT, BSPP, UNF or Metric	NPT, BSPP, UNF or Metric	NPT, BSPP, UNF or Metric	NPT, BSPP, UNF or Metric	NPT, BSPP, UNF or Metric	Flange, NPT, BSPP or Metric	G $\frac{1}{4}$ A, G $\frac{3}{8}$ A or G $\frac{1}{2}$ int.	G $\frac{1}{4}$ A, ISO 228/1	G $\frac{1}{4}$ A conical metal	NPT, BSPP or Metric	NPT, BSPP or Metric	NPT, BSPP or Metric	M $\frac{1}{4}$ x 1.5 or M $\frac{1}{8}$ x 1.5	NPT, BSPP 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 Pg9 or Pg11 only)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

MBS 3000 / MBS 3050



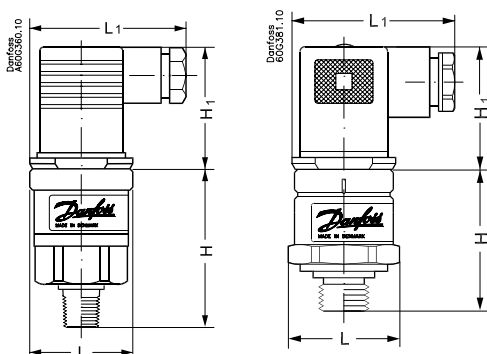
Pressure transducers

- 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 (MBS 3050)



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
MBS 3000	55.88	2.2	33.02	1.3	40.64	1.6	50.8	2.0	0.20	0.44
MBS 3050*	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 MBS 3000

Ordering - MBS 3000

Pressure range		Pressure 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>	<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 - MBS 3050

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>mA</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

MBS 2250



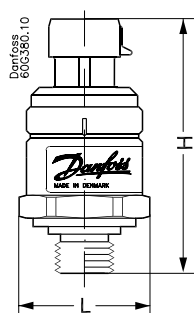
Pressure transducers

- 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 - MBS 2250

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

MBS 3200



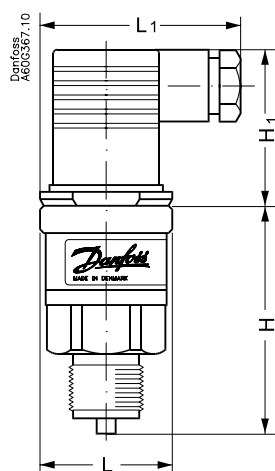
Pressure transducers

- 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 (o 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 MBS 3200

Pressure range		Process 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	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

MBS 5100 / MBS 5150



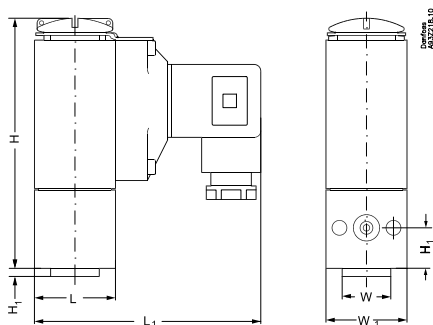
Block-type pressure transducers with ship approvals

- 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 (MBS 5150)
- Can be used with MBV 5000 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 - MBS 5100

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 - MBS 5150

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



Pressure and temperature switches



Pressure and temperature switches selection guide

Pressure switches																	Temperature switches						Differential switches		
Type	KPU	KPI	RT	KPS	CAS	MBV 5000 MBV 5100	CS	KPU	KP	RT	KPS	MBV 8000 MBV 8100	RT	CAS	MBV 5080 MBV 5180	RT									
Ordering information found in this catalog on page		40	38	42		44			49	48	50	52			46										
																									
Measuring range	-0.9 to 28 bar (-13.05 to 406 psi)	-0.9 to 28 bar (-13.05 to 406 psi)	-1 to 30 bar (-14.5 to 435 psi)	0 to 60 bar (0 to 870 psi)	0 to 60 bar (0 to 870 psi)	-0.2 to 400 bar (-2.9 to 5,800 psi)	2 to 20 bar (29 to 290 psi)	0° to 150°C (32° to 302°F)	0° to 150°C (32° to 302°F)	-60° to 300°C (-76° to 572°F)	-10° to 200°C (14° to 392°F)	-10° to 200°C (14° to 392°F)	0° to 20°C (32° to 68°F)	0.2 to 2.5 bar (2.9 to 36.25 psi)	0.3 to 5 bar (4.35 to 72.5 psi)	0 to 11 bar (0 to 159.5 psi)									
Contact system	SPDT	SPDT	SPDT	SPDT	SPDT	SPDT	TP-ST/SPDT	SPDT	SPDT	SPDT	SPDT	SPDT	SPDT	SPDT	SPDT	SPDT									
Contact rating	FLA 24A @ 240Vac	FLA 16A @ 120Vac	FLA 4A @ 400Vac	FLA 6A @ 400Vac	Pilot duty (AC15) 0.1A @ 220Vac	Pilot duty (AC15) 0.5A @ 250 Vac	FLA 12A @ 220 to 400Vac	FLA 24A @ 240Vac	FLA 16A @ 120Vac	FLA 4A @ 400Vac	FLA 6A @ 400Vac	Pilot duty (AC15) 0.5A @ 250 Vac	FLA 4A @ 400Vac	Pilot duty (AC15) 0.5A @ 250 Vac	Pilot duty (AC15) 0.5A @ 250 Vac	FLA 4A @ 400Vac									
Electrical connection	Screw terminals	Screw terminals	Screw terminals	Screw terminals	Screw terminals	DIN plug or Amp	Screw terminals	Screw terminals	Screw terminals	Screw terminals	Screw terminals	DIN plug	Screw terminals	Screw terminals	DIN plug	Screw terminals									
Process connection	NPT	BSPP or NPT	BSPP or NPT	BSPP or NPT	BSPP or NPT	Flange, BSPP or NPT	BSPP or NPT	Remote or room sensor	Remote or room sensor	Remots or room sensor	Remote or rigid sensor	Remote or rigid sensor	Remote sensors	BSPP or NPT	Flange, BSPP or NPT	BSPP or NPT									
Contact material	Silver or Gold	Silver or Gold	Silver or Gold	Gold	Silver	Silver	Silver	Silver or Gold	Silver	Silver or Gold	Gold	Silver	Silver or Gold	Silver	Silver	Silver or Gold									
Differential	Adjustable	Adjustable	Adjustable	Adjustable	Fixed	Fixed	Adjustable	Adjustable	Adjustable	Adjustable	Adjustable	Fixed	Adjustable	Adjustable	Adjustable	Adjustable									
Approvals	UL and CE	UL and CE	CE and Marine	CE and Marine	CE and Marine	CE and Marine (MBV 5100 only)	CE	UL and CE	UL and CE	CE and Marine	CE and Marine	CE and Marine (MBV 8100 only)	CE and Marine	CE and Marine	Marine (MBV 5180)	CE and Marine									
Enclosure	IP 33/44/55 NEMA 3R/12	IP 33/44/55 NEMA 3R/12	IP 54/66 NEMA 35/4	IP 67 NEMA 6	IP 67 NEMA 6	IP 65 NEMA 13	IP 43/55 NEMA 12	IP 33/44/55 NEMA 3R/12	IP 33/44/55 NEMA 3R/12	IP 54/66 NEMA 35/4	IP 67 NEMA 6	IP 65 NEMA 13	IP 54/66 NEMA 35/4	IP 67 NEMA 6	IP 65 NEMA 13	IP 54/66 NEMA 35/4									
Can be used together with:																									
MBV 5000 test valve						●						●			●										

RT



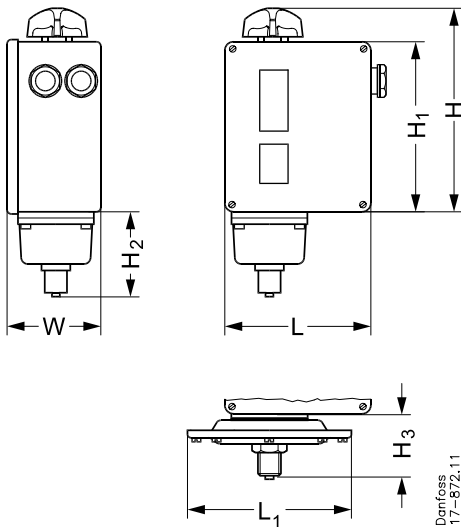
Pressure switches

- Wide application range
- Available with all relevant marine approvals
- High reliability
- Wide regulation range
- Very low differential
- High level of enclosure



Technical data

Process connection	BSPF, NPT or UNF	
Enclosure	IP 66 / NEMA 4X	
Media temperature	-40° to 100°C (-40° to 212°F)	
Ambient temperature	-50° to 70°C (-58° to 158°F)	
Electrical connection	Two Pg13.5 for 6 to 14mm (0.24" to 0.55") cable	
Contact system	SPDT (interchangeable to other types)	
Contact rating	Non-inductive Amperes	10A @ 400Vac
	FLA	4A @ 400Vac
	Pilot duty AC	3A @ 400Vac
	Pilot duty DC	12W @ 240Vdc



Danfoss
17-872,11

Dimensions and weight

Type	H		H1		H2		H3	
	mm	in	mm	in	mm	in	mm	in
RT5, 110 112, 116, 117, 123, 200	144.78	5.7	124.46	4.9	60.96	2.4	-	-
RT113	149.86	5.9	124.46	4.9	60.96	-	45.72	1.8
RT 121	144.78	5.7	124.46	4.9	60.96	2.4	-	-

Type	W		L		L1		Weight	
	mm	in	mm	in	mm	in	mm	lbs.
RT5, 110 112, 116, 117, 123, 200	73.66	2.9	109.22	4.3	-	-	1.0	2.2
RT113	73.66	-	109.22	4.3	111.76	4.4	1.0	2.2
RT 121	73.66	2.9	109.22	4.3	-	-	1.0	2.2

(Total measurements are dependant on the pressure connection)

Ordering - RT

Type	Process connection	Pressure range		Differential		Operating pressure		Code no.
		<i>bar</i>	<i>psi</i>	<i>bar</i>	<i>psi</i>	<i>max. bar</i>	<i>max. psi</i>	
RT 5	G3/8A (BSPP)	4 to 17	58 to 247	1.2 to 4	17 to 58	22	319	017-525566
RT 110	G3/8A (BSPP)	0.2 to 3	2.9 to 43.5	0.08 to 0.25	1.16 to 3.63	7	101.5	017-529166
RT 113	G3/8A (BSPP)	0 to 0.3	0 to 4.4	0.01 to 0.05	0.15 to 0.73	0.4	7.25	017-519666
RT 116	G3/8A (BSPP)	1 to 10	14.5 to 145	0.3 to 1.3	4.35 to 18.85	22	301	017-520366
RT 117	G3/8A (BSPP)	10 to 30	145 to 435	1 to 4	14.5 to 58	42	609	017-529566
RT 200	G3/8A (BSPP)	0.2 to 6	2.9 to 87	0.25 to 1.2	3.63 to 17.40	22	309	017-523766
RT 121	G3/8A (BSPP)	-1 to 0	-14.5 to 0	0.09 to 0.4	1.3 to 5.8	7	101.5	017-521566
RT 112	G3/8A (BSPP)	0.1 to 1.1	14.5 to 16	0.07 to 0.16	1.02 to 2.32	7	101.5	017-519166

KP / KPI



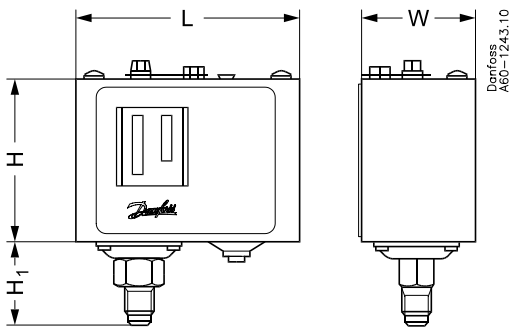
Pressure switches

- Wide regulation range
- Small dimensions
- Ultra-short bounce times
- Easy electrical connection
- Long operation life
- High contact load
- High pulsation protection



Technical data

Process connection	G 1/4"A (BSP; ISO 228/1)	
Enclosure	IP 30 / NEMA 2 (see accessories for higher enclosure covers)	
Media temperature	-40° to 100°C (-40° to 212°F)	
Ambient temperature	-40° to 65°C (-40 to 149°F)	
Electrical connection	Cable entry for 6 to 14mm (0.24 to 0.55 in) diameter cable	
	Rubber boot or 1/2 -14 NPT conduit nut	
Contact system	SPDT	
Contact rating	Non-inductive Amperes	16A @ 400Vac
	FLA	16A @ 120Vac
	Pilot duty DC	12W @ 240Vdc



Dimensions and weight

H		W		L	
mm	in	mm	in	mm	in
60.96	2.4	43.18	1.7	838.2	33.0

H1		Weight	
mm	in	kg	lbs
33.02	1.3	0.30	0.66

Ordering - KP / KPI

Type	Process connection	Pressure range		Differential		Operating pressure		Reset	Code no.	Code no.
		bar	psi	bar	psi	max. bar	max. psi		Silver contacts	Gold contacts
KP 34	1/4 - 18 NPT (female)	0.13 to 1	2 to 15	0.20	3	4	58	Max.	060-214866	-
KP 34	1/4 - 18 NPT (female)	0.13 to 1	2 to 15	0.13 to 0.41	2 to 6	4	58	Automatic	060-214966	-
KP 35	1/4 - 18 NPT (female)	0.41 to 3.44	6 to 50	0.48	7	10	145	Max.	060-215066	-
KP 35	1/4 - 18 NPT (female)	0.41 to 3.44	6 to 50	0.41 to 2.2	6 to 32	10	145	Automatic	060-215166	-
KP 36	1/4 - 18 NPT (female)	1 to 10.3	15 to 150	0.69 to 4	10 to 58	16.9	245	Automatic	060-214466	-
KP 36	1/4 - 18 NPT (female)	1 to 10.3	15 to 150	0.69	10	16.9	245	Max.	060-214566	-
KP 37	1/4 - 18 NPT (female)	4 to 20.7	58 to 300	1.8 to 2.9	26 to 43	27.9	405	Automatic	060-214666	-
KP 37	1/4 - 18 NPT (female)	4 to 20.7	58 to 300	2.9	43	27.9	405	Max.	060-214766	-
KP35	G1/4A (BSPP)	-0.2 to 7.5	-2.9 to 109	0.7 to 4	10 to 58	17	246.5	Automatic	060-113366	060-504766
KP36	G1/4A (BSPP)	2 to 14	29 to 203	0.7 to 4	10 to 58	17	246.5	Automatic	060-110866	060-113766
KP36	G1/4A (BSPP)	4 to 12	29 to 203	0.5 to 1.6	7.25 to 23.2	17	246.5	Automatic	060-122166	-
KPI35	G1/4A (BSPP)	-0.2 to 8	-2.9 to 116	0.4 to 1.5	5.8 to 21.75	18	261	Automatic	060-121766	060-316466
KPI35	G1/4A (BSPP)	-0.2 to 8	-2.9 to 116	0.5 to 2	7.25 to 29	18	261	Automatic	060-121966	-
KPI36	G1/4A (BSPP)	4 to 12	58 to 174	0.5 to 1.6	7.5 to 23.2	18	261	Automatic	060-118966	060-113866
KPI36	G1/4A (BSPP)	2 to 12	29 to 174	0.5 to 1.6	7.5 to 23.2	18	261	Automatic	060-316966	-
KPI38	G1/4A (BSPP)	8 to 28	116 to 406	1.8 to 6	26 to 87	30	435	Automatic	060-508166	-

KPS



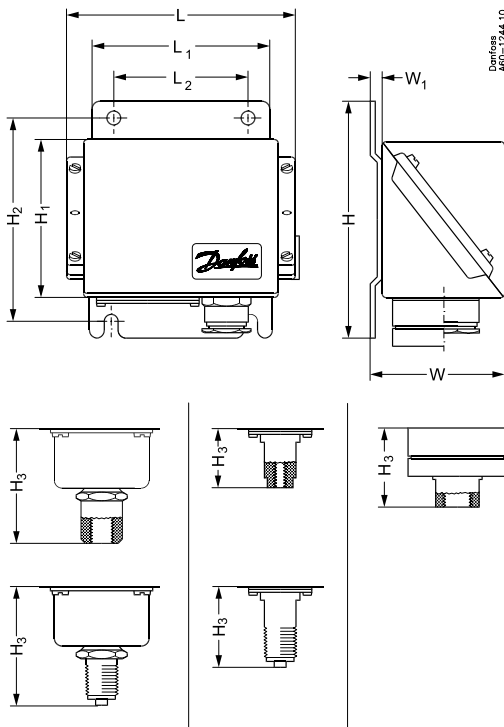
Pressure switches

- For harsh environments
- Available with all relevant land and marine approvals
- Robust and compact construction
- Resistance to shock and vibrations
- Covers most outdoor as well as indoor application requirements
- Suitable for alarm and regulation systems in factories, diesel plants, compressors, power stations and on board ships
- Long operation life



Technical data

Process connection	BSPP or NPT	
Enclosure	IP 67 / NEMA 6	
Ambient temperature	-40° to 70°C (-40° to 158°F)	
Electrical connection	Pg13.5 for 5 to 14mm (0.20" to 0.55") cable	
Contact system	SPDT, gold plated	
Contact rating	Non-inductive Amperes	10A @ 440Vac
	FLA	6A @ 440Vac
	Pilot duty AC	4A @ 440Vac
	Pilot duty DC	12W@220Vdc



Dimensions and weight

Type	H		W		L		H1		H2		H3 (G1/4A)	
	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
KPS31 - 33	119.38	4.7	68.58	2.7	116.84	4.6	78.74	3.1	104.14	4.1	58.42	2.3
KPS35 - 39	119.38	4.7	68.58	2.7	116.84	4.6	78.74	3.1	104.14	4.1	30.48	1.2
KPS43 - 47	119.38	4.7	68.58	2.7	116.84	4.6	78.74	3.1	104.14	4.1	40.64	1.6

Type	H3 (G3/8A)		W1		L1		L2		Weight	
	mm	in	mm	in	mm	in	mm	in	mm	lbs
KPS31 - 33	60.96	2.4	6.35	0.25	88.9	3.5	68.58	2.7	1.0	2.2
KPS35 - 39	40.64	1.6	6.35	0.25	88.9	3.5	68.58	2.7	1.0	2.2
KPS43 - 47	-	-	6.35	0.25	88.9	3.5	68.58	2.7	1.32	2.9

Ordering - KPS

Type	Process connection	Pressure range		Differential		Media temperature		Operating pressure		Code no.
		<i>bar</i>	<i>psi</i>	<i>bar</i>	<i>psi</i>	°C	°F	<i>max. bar</i>	<i>max. psi</i>	
KPS31	G1/4A	0 to 2.5	0 to 36.25	0.1	1.45	-40 to 100	-40 to 212	6	87	060-311066
KPS31	G3/8A	0 to 2.5	0 to 36.25	0.1	1.45	-40 to 100	-40 to 212	6	87	060-310966
KPS33	G1/4A	0 to 3.5	0 to 51	0.2	2.9	-40 to 100	-40 to 212	10	145	060-310466
KPS33	G3/8A	0 to 3.5	0 to 51	0.2	2.9	-40 to 100	-40 to 212	10	145	060-310366
KPS35	G1/4A	0 to 8	0 to 116	0.4 to 1.5	5.8 to 22	-40 to 100	-40 to 212	12	174	060-310566
KPS35	G3/8A	0 to 8	0 to 116	0.4 to 1.5	5.8 to 22	-40 to 100	-40 to 212	12	174	060-310066
KPS35	G1/4A	0 to 8	0 to 116	0.4	5.8	-40 to 100	-40 to 212	12	174	060-310866
KPS37	G1/4A	6 to 18	87 to 261	0.85 to 2.5	12.3 to 36	-40 to 100	-40 to 212	22	319	060-310666
KPS37	G3/8A	6 to 18	87 to 261	0.85 to 2.5	12.3 to 36	-40 to 100	-40 to 212	22	319	060-310166
KPS39	G1/4A	10 to 35	145 to 507.5	2.0 to 6	29 to 87	-40 to 100	-40 to 212	45	652.5	060-310766
KPS39	G3/8A	10 to 35	145 to 507.5	2.0 to 6	29 to 87	-40 to 100	-40 to 212	45	652.5	060-310266
KPS43	G1/4	1 to 10	14.5 to 145	0.7 to 2.8	10 to 40.6	-25 to 100	-13 to 212	120	1740	060-312066
KPS45	G1/4	4 to 40	58 to 580	2.2 to 11	32 to 159.5	-25 to 100	-13 to 212	120	1740	060-312166
KPS47	G1/4	6 to 60	87 to 870	3.5 to 17	51 to 246.5	-25 to 100	-13 to 212	120	1740	060-312266

MBC 5000 / MBC 5100



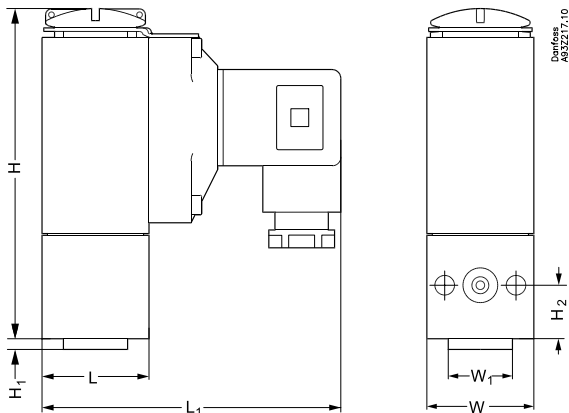
Block type compact pressure switches

- Compact design
- Wide regulation range
- Available with all relevant ship approvals (MBC5100)
- High vibration stability
- Built-in microswitch
- Wide application range
- To be used with MBV5000 block valve (flange versions)



Technical data

Process connection	BSPP or NPT with or without 7/32" flange		
Enclosure	IP 65 / NEMA 13		
Operation temperature	-40° to 85°C (-40° to 185°F) - bellows version		
	-10° to 85°C (14 to 185°F) - diaphragm version		
	-40° to 85°C (-40° to 185°F) - piston version		
Transport temperature	-50 to 85°C (-58 to 185°F) - bellows version		
	-50 to 85°C (-58 to 185°F) - diaphragm version		
	-40° to 85°C (-40° to 185°F) - piston version		
Electrical connection	Plug Pg11 (Pg9 and Pg13.5 available on request)		
Contact system	SPDT microswitch		
Contact rating	Non-inductive Amperes	10A @ 250Vac	
	FLA	3A @ 250Vac	
	Pilot duty AC	0.5A @ 250Vac	
	Pilot duty DC	12W@125Vdc	



Dimensions and weight

H		H1		H2		W	
mm	in	mm	in	mm	in	mm	in
91.44	3.6	30.48	1.2	15.24	0.6	83.82	3.3

W1		L		L1		Weight	
mm	in	mm	in	mm	in	kg	lbs
30.48	1.2	2.54	0.1	20.32	0.8	0.36	0.8

Ordering - MBC 5000

Version	Process connection	Pressure range		Differential		Operating pressure		Code no.
		<i>bar</i>	<i>psi</i>	<i>bar</i>	<i>psi</i>	<i>max. bar</i>	<i>max. psi</i>	
Bellows	G1/4 w/ flange	-0.2 to 1	-2.9 - 14.5	0.15 to 0.45	2.2 to 6.5	15	220	061B200566
Bellows	G1/4 w/ flange	-0.2 to 4	-2.9 - 58	0.15 to 0.45	2.2 to 6.5	15	220	061B200466
Bellows	G1/4 w/ flange	-0.2 to 10	-2.9 - 145	0.15 to 0.60	2.2 to 8.7	15	220	061B200266
Bellows	G1/4 w/ flange	5 to 30	72.5 - 435	0.40 to 1.5	5.8 to 21.75	45	650	061B200366
Diaphragm	G1/4 w/ flange	1 to 10	14.5 - 145	0.30 to 2.0	4.35 to 29	150	2175	061B300466
Diaphragm	G1/4 w/ flange	5 to 20	72.5 - 290	0.4 to 2.5	5.8 to 36.25	150	2175	061B300266
Diaphragm	G1/4 w/ flange	5 to 40	72.5 - 580	1.0 to 7.0	14.5 to 101.5	150	2175	061B300566
Diaphragm	G1/4 w/ flange	10 to 100	145 - 1450	1.7 to 14	24.65 to 203	150	2175	061B300366
Piston	G1/4	16 to 160	232 to 2320	12 to 30	174 to 435	600	8700	061B500266
Piston	G1/4	25 to 250	362.5 to 3625	12 to 40	174 to 580	600	8700	061B500166
Piston	G1/4	40 to 400	580 to 5800	15 to 50	174 to 725	600	8700	061B500066

Ordering - MBC 5100

Versions with marine approvals

Version	Process connection	Pressure range		Differential		Operating pressure		Code no.
		<i>bar</i>	<i>psi</i>	<i>bar</i>	<i>psi</i>	<i>max. bar</i>	<i>max. psi</i>	
Bellows	G1/4 w/ flange	-0.2 to 1	-2.9 to 14.5	0.15 to 0.45	2.2 to 6.53	15	220	061B000566
Bellows	G1/4 w/ flange	-0.2 to 4	-2.9 to 58	0.15 to 0.45	2.2 to 6.53	15	220	061B000466
Bellows	G1/4 w/ flange	-0.2 to 10	-2.9 to 145	0.15 to 0.60	2.2 to 8.7	15	220	061B000266
Bellows	G1/4 w/ flange	0.5 to 3	7.25 to 43.5	0.15 to 0.30	2.2 to 4.35	15	220	061B002966
Bellows	G1/4 w/ flange	1 to 6	14.5 to 87	0.15 to 0.45	2.2 to 6.53	15	220	061B000766
Bellows	G1/4 w/ flange	5 to 30	72.5 to 435	0.40 to 1.5	5.8 to 21.75	45	650	061B000366
Diaphragm	G1/4 w/ flange	0.5 to 3	7.25 to 43.5	0.25 to 0.8	3.63 to 11.6	150	2175	061B101766
Diaphragm	G1/4 w/ flange	1 to 6	14.5 to 87	0.30 to 2.0	4.35 to 29	150	2175	061B100966
Diaphragm	G1/4 w/ flange	1 to 10	14.5 - 145	0.30 to 2.0	4.35 to 29	150	2175	061B100466
Diaphragm	G1/4 w/ flange	5 to 20	72.5 to 291	0.4 to 2.5	5.8 to 36.25	150	2175	061B100266
Diaphragm	G1/4 w/ flange	5 to 25	72.5 to 362.5	0.4 to 2.5	5.8 to 36.25	150	2175	061B102466
Diaphragm	G1/4 w/ flange	5 to 40	72 to 580	1.0 to 7.0	14.5 to 101.5	150	2175	061B100566
Diaphragm	G1/4 w/ flange	10 to 100	145 to 1450	1.7 to 14	24.65 to 203	150	2175	061B100366
Piston	G1/4	16 to 160	232 to 2320	12 to 30	174 to 435	600	8700	061B510066
Piston	G1/4	25 to 250	362.5 to 3625	12 to 40	174 to 580	600	8700	061B510166
Piston	G1/4	40 to 400	580 to 5800	15 to 50	217.5 to 72.5	600	8700	061B510266

MBC 5080 / MBC 5180



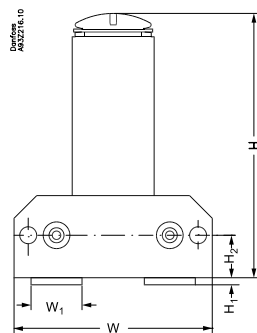
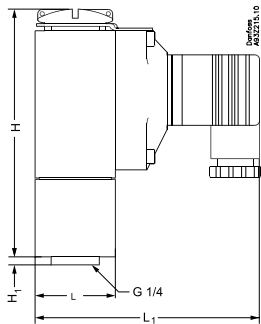
Block type differential pressure switches

- Compact design
- Wide regulation range
- Available with all relevant ship approvals (MBC 5180)
- High vibration stability
- Built-in microswitch
- Wide application range
- To be used with MBV 5000 block valve (flange versions)



Technical data

Process connection	G 1/4" (BSP; ISO 228/1) with or without 7/32" flange	
Enclosure	IP 65 / NEMA 4	
Operation temperature	-10 to 85°C (14° to 185°F)	
Transport temperature	-50 to 85°C (-58° to 185°F)	
Electrical connection	Pg11 (Pg9 and Pg13.5 available on request)	
Contact system	SPDT microswitch	
Contact rating	Non-inductive Amperes	10A @ 250Vac
	FLA	3A @ 250Vac
	Pilot duty AC	0.5A @ 250Vac
	Pilot duty DC	12W@125Vdc



Dimensions and weight

H		H1		H2		W	
mm	in	mm	in	mm	in	mm	in
91.44	3.6	30.48	1.2	15.24	0.6	83.82	3.3

W1		L		L1		Weight	
mm	in	mm	in	mm	in	mm	lbs
30.48	1.2	2.54	0.1	20.32	0.8	0.41	0.9

Ordering - MBC 5080

Process connection	Pressure range		Differential		Operating pressure		Code no.
	<i>bar</i>	<i>psi</i>	<i>bar</i>	<i>psi</i>	<i>max. bar</i>	<i>max. psi</i>	
2 x G1/4	0 to 30	0 to 435	0.3 to 5	4.35 to 72.5	45	652.5	061B127066

Ordering - MBC 5180

Versions with marine approvals

Process connection	Pressure range		Differential		Operating pressure		Code no.
	<i>bar</i>	<i>psi</i>	<i>bar</i>	<i>psi</i>	<i>max. bar</i>	<i>max. psi</i>	
2 x G1/4	0 to 30	0 to 435	0.3 to 5	4.35 to 72.5	45	652.5	061B129066
2 x G1/4 w/ flange	0 to 30	0 to 435	0.3 to 5	4.35 to 72.5	45	652.5	061B128066

RT



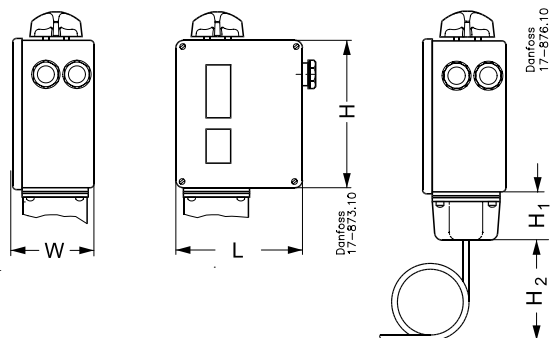
Temperature switches

- Wide application range
- Available with all relevant marine approvals
- High reliability
- Wide regulation range
- High stability and accuracy
- High level of enclosure



Technical data

Sensor type	Remote or room sensor		
Enclosure	IP 66 / NEMA 4		
Ambient temperature	-50° to 70°C (-58 to 158°F)		
Electrical connection	Two Pg13.5 for 6 to 14mm (0.24" to 0.55") cable		
Contact system	SPDT (interchangeable to other types)		
Contact rating	Non-inductive Amperes	10A @ 400Vac	
	FLA	4A @ 400Vac	
	Pilot duty AC	3A @ 400Vac	
	Pilot duty DC	12W @ 240Vdc	
Charge type	Vapor, adsorption or partial		



Dimensions and weight

H		W		L	
mm	in	mm	in	mm	in
124.46	4.9	73.66	2.9	109.22	4.3

H1		H2		Weight	
mm	in	mm	in	kg	lbs
38.1	1.5	48.26	1.9	1.0	2.2

Ordering - RT

Type	Setting range		Remote sensor length		Differential		Differential		Sensor temperature		Charge	Code no.
	°C	°F	m	ft	low °C	low °F	high °C	high °F	max. °C	max. °F		
RT 3	-25 to 15	-13 to 59	2	6.56	2.8 to 10	5.0 to 18	1 to 4	1.8 to 7.2	150	302	Vapor	017-501466
RT 14	-5 to 30	23 to 86	2	6.56	2 to 8	3.6 to 14.4	2 to 10	3.6 to 18	150	302	Adsorption	017-509966
RT 101	25 to 90	77 to 194	2	6.56	2.4 to 10	4.3 to 18	3.5 to 20	6.3 to 36	300	572	Adsorption	017-500366
RT 107	70 to 150	158 to 302	2	6.56	6 to 25	10.8 to 45	1.8 to 8	3.2 to 14.4	215	419	Partial	017-513566

KP



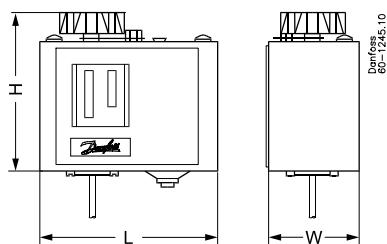
Temperature switches

- Wide regulation range
- Small dimensions
- Ultra-short bounce times
- Easy electrical connection
- Long operation life
- High contact load
- High pulsation protection



Technical data

Sensor type	Remote or room sensor	
Enclosure	IP 33 / NEMA 3R (IP 55 cover available)**	
Ambient temperature	-40° to 65°C (-40° to 149°F)	
Electrical connection	Pg 13.5 for cable diameters from 3/16" to 9/16"	
Contact system	SPDT	
Contact rating	Non-inductive Amperes	16A @ 400Vac
	FLA	16A @ 120Vac
	Pilot duty DC	12W @ 240Vdc
Charge type	Adsorption	



Dimensions and weight

H		L		W		Weight	
mm	in	mm	in	mm	in	kg	lbs
73.66	2.9	83.82	3.3	43.18	1.7	0.36	0.8

Ordering - KP

Type	Setting range		Differential		Sensor temperature		Remote sensor length		Reset	Contact material	Code no.
	°C	°F	°C	°F	max. °C	max. °F	m	ft			
KP 78	30 to 90	86 to 194	5 to 15	9 to 27	150	302	2	6.56	Automatic	Silver	060L118466
KP 79	50 to 100	122 to 212	5 to 15	9 to 27	150	302	2	6.56	Automatic	Silver	060L112666
KP 79	50 to 98.9	122 to 210	16.2 to 48.6	9 to 27	150	302	2	6.56	Automatic	Silver	060L223866
KP 79	50 to 98.9	122 to 210	18	10	150	302	2	6.56	Max.	Silver	060L223966
KP 81	80 to 150	176 to 302	7 to 20	12.6 to 36	200	492	2	6.56	Automatic	Silver	060L112566
KP 81	80 to 150	176 to 302	7 to 20	12.6 to 36	200	492	3	9.84	Automatic	Silver	060L118366
KP 81	80 to 150	176 to 302	7 to 20	12.6 to 36	200	492	5	16.40	Automatic	Silver	060L117066
KP 81	80 to 150	176 to 302	8	14.4	200	492	2	6.56	Max.	Silver	060L115566
KP 81	80 to 115.6	176 to 240	16.2 to 81	9 to 45	248.9	480	2	6.56	Automatic	Silver	060L224066
KP 81	80 to 115.6	176 to 240	28.8	16	248.9	480	2	6.56	Max.	Silver	060L224166

**Please see Accessories section

KPS



Temperature switches

- Robust design
- Available with all relevant ship approvals
- Wide temperature range
- Gold-plated contacts
- Sea water resistance



Technical data

Sensor type	Remote or rigid sensor		
Enclosure	IP 67 / NEMA 6		
Ambient temperature	-40° to 70°C (-40 to 158°F)		
Electrical connection	Pg13.5 for 5 to 14mm (0.20" to 0.55") cable		
Contact system	SPDT, gold plated		
Contact rating	Non-inductive Amperes	10A @ 440Vac	
	FLA	6A @ 440Vac	
	Pilot duty AC	4A @ 440Vac	
	Pilot duty DC	12W@220Vdc	
Charge type	Adsorption		

Dimensions and weight

Type	H		W		L		Weight	
	mm	in	mm	in	mm	in	kg	lbs
Fig 1	119.38	4.7	68.58	2.7	116.84	4.6	1.18	2.6
Fig 2	106.68	4.2	60.96	2.4	116.84	4.6	1.0	2.2
Fig.3	119.38	4.7	68.58	2.7	116.84	4.6	1.18	2.6

Fig.1

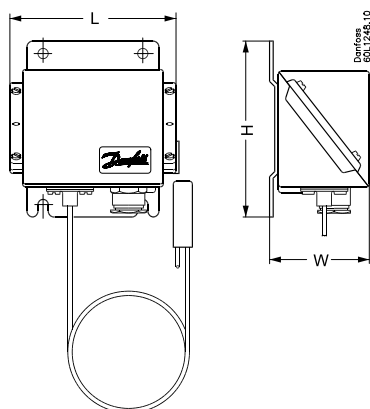


Fig 2

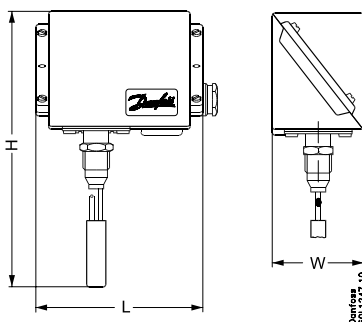
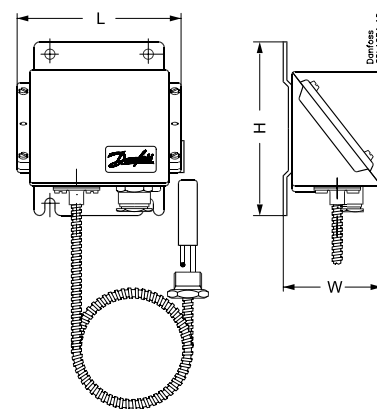


Fig 3



Ordering - KPS

Remote sensor length equals 2m (6.56')

Type	Setting range		Differential		Sensor temperature		Reset	Code no.	Code no.	Code no.
	°C	°F	°C	°F	max. °C	max. °F		Rigid sensor*	Remote sensor**	Armoured remote sensor**
KPS 76	-10° to 30	14 to 86	3 to 10	37.5 to 50	80	176	Automatic	-	060L311366	060L311266
KPS 77	20 to 60	68 to 140	3 to 14	37.5 to 57	130	266	Automatic	060L311866	060L310266	060L310166
KPS 79	50 to 100	122 to 212	4 to 16	39 to 61	200	392	Automatic	060L312166	060L310566	060L310466
KPS 80	70 to 120	158 to 248	4.5 to 18	40 to 64.4	220	428	Automatic	060L312666	060L312966	060L312866
KPS 81	60 to 150	140 to 302	5 to 25	41 to 77	250	482	Automatic	-	060L310766	060L310666
KPS 83	100 to 200	212 to 392	6.5 to 30	43.7 to 86	300	572	Automatic	-	060L310966	060L310866

* Suitable sensor pocket insertion length equals 75mm (3")

** Suitable sensor pocket insertion length equals 65mm (2 1/2"), 75mm (3") or 110mm (4 1/3")

MBC 8000 / MBC 8100



Block type compact temperature switches

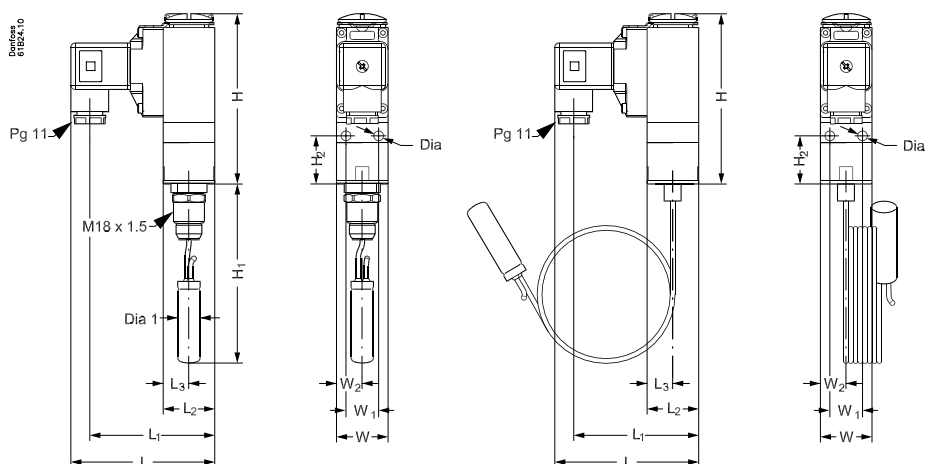
- Compact design
- Available with all relevant ship approvals (MBC 8100)
- Wide regulation range
- Vibration and shock stability
- Built-in microswitch
- Wide application range

Technical data

Sensor type	Remote or rigid sensor	
Enclosure	IP 65 / NEMA 13	
Ambient temperature	-40° to 70°C (-40 to 158°F)	
Electrical connection	Plug Pg 9, Pg 11 or Pg 13.5	
Contact system	SPDT microswitch	
Contact rating	Non-inductive Amperes	10A @ 250Vac
	FLA	3A @ 250Vac
	Pilot duty AC	0.5A @ 250Vac
	Pilot duty DC	12W@125Vdc
Charge type	Adsorption	

Dimensions and weight

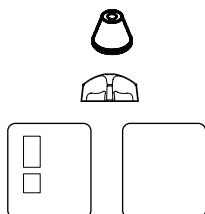
H		H1		H2		Dia 1		L		L1		L2		L3		W		W1		W2	
mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
99	3.90	105	4.13	28	1.10	13	0.51	82	3.23	71	2.80	30	1.18	15	0.59	30	1.18	20	0.79	15	0.59



Ordering - MBC 8100

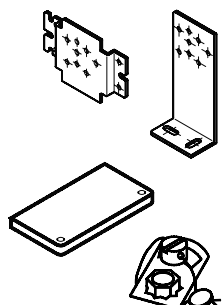
Setting range		Differential		Remote sensor length		Sensor temperature		Code no.	Code no.	Code no.
°C	°F	°C	°F	m	ft	max. °C	max. °F	Rigid sensor	Remote sensor	Armored remote sensor
-10 to 30	14 to 86	3	5.4	2	6.56	80	176	-	061B820166	061B810166
20 to 60	68 to 140	3	5.4	2	6.56	130	266	061B800266	-	061B810266
50 to 100	122 to 212	4	7.2	2	6.56	200	392	061B800366	061B820366	061B810366
70 to 120	158 to 248	5	9	2	6.56	220	428	061B800466	-	061B810466
60 to 150	140 to 302	6	10.8	2	6.56	250	482	061B800566	061B820566	061B810566

Accessories for temperature switches



For RT

	Code no.
Seal cap (setting only to be altered by tools; replaces knob)	017-436066
Spare setting knob	017-436366
Spare cover with windows	017-436166
Blank cover	017-436266



For KP / KPI

	Code no.
Wall bracket	060-105566
Wall bracket, angle-type	060-105666
Top cover for setting spindles, IP 44	060-109766
Protective cap, IP 44	060-003166
Blank cover, IP55 / NEMA 12	060-033066
Transparent cover, IP 55 / NEMA 12	060-062866
Setting sealing screw	060-105766

Sensor pockets for RT and KP temperature switches

Process connection	Insertion length		Material	Code no.
	mm	in		
G1/2 (BSPP)	112	4 2/5	Brass	017-437066
G1/2 (BSPP)	112	4 2/5	18/8 steel	017-436966
G1/2 (BSPP)	465	18 1/3	Brass	017-421666

Sensor pockets for KPS temperature switches and MBC 8000 / MBC 8100

Process connection	Insertion length		Material	Code no.
	mm	in		
1/2 - 14 NPT	65	2 1/2	Brass	060L326566
1/2 - 14 NPT	75	3	Brass	060L326466
1/2 - 14 NPT	110	4 1/3	Brass	060L328066
1/2 - 14 NPT	110	4 1/3	18/8 steel	060L327066

Other

Description	Code no.
Gasket set for KPS temperature switch with remote sensor	060-327366
Heat conductive compound, tube	041E0110
Gasket set for KPS temperature switch with armoured remote sensor	060L036666

MBV 5000



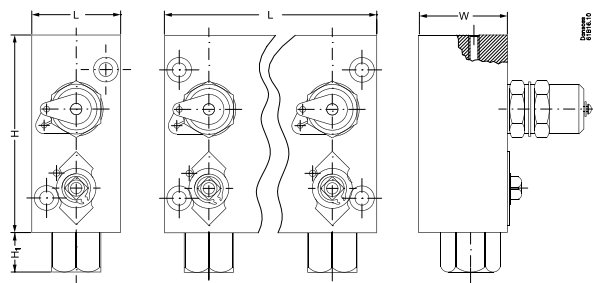
Pressure test valves

- Compact design
- Light material
- Many configuration possibilities
- Low installation costs
- Fast and easy to operate
- For use with the MBC block pressure switches, temperature switches and block MBS pressure transducers



Technical data

Pressure input connection	BSPP or metric
Pressure output connection	M5x8 flange
Test pressure connection	M16x2
Operating pressure	0 to 120 bar (0 to 1,740 psi)
Operating temperature	-20° to 120°C (-5 - 248°F)
Proof pressure	180 bar (2,610 psi)
Burst pressure	250 bar (3,625 psi)



Dimensions and weight

Outputs no.	H		H1		W		L		Weight	
	mm	in	mm	in	mm	in	mm	in	kg	lbs
1	80.01	3.15	17.02	0.67	39.88	1.57	36.07	1.42	0.40	0.88
2	80.01	3.15	17.02	0.67	39.88	1.57	76.2	3.00	0.80	1.76
3	80.01	3.15	17.02	0.67	39.88	1.57	116.08	4.57	1.20	2.65
4	80.01	3.15	17.02	0.67	39.88	1.57	155.96	6.14	1.60	3.53
5	80.01	3.15	17.02	0.67	39.88	1.57	196.09	7.72	2.0	4.41

Ordering - MBV 5000

Inputs no.	Test connections no.	Code no. 1 output	Code no. 2 outputs	Code no. 3 outputs	Code no. 4 outputs	Code no. 5 outputs
1	1	061B7000	061B7009	061B7010	061B7011	061B7012
1	2	-	061B7005	-	-	-
1	3	-	-	061B7006	-	-
1	4	-	-	-	061B7007	-
1	5	-	-	-	-	061B7008
2	2	-	061B7001	-	-	-
3	3	-	-	061B7002	-	-
4	4	-	-	-	061B7003	-
5	5	-	-	-	-	061B7004

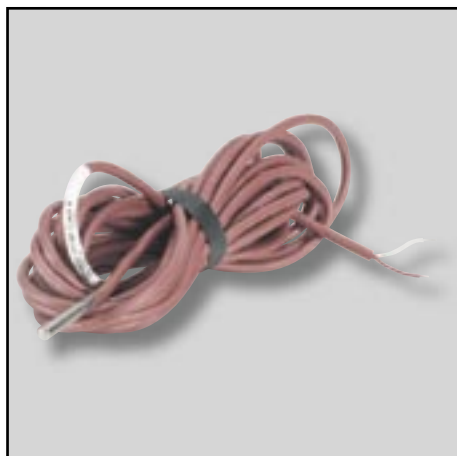
Temperature sensors and transducers



Temperature sensors and transducers selection guide

Type	MBT 153	MBT 3270	MBT 3260	MBT 5250	MBT 3560 MBT 5560	MBT 5252	MBT 5111	MBT 5113	MBT 5116	MBT 9110
Ordering information found in this catalog on page	58			59	62	60				
										
Available with 4-20mA or voltage output					•	•		•	•	•
Sensor element	Pt 100, Pt 1000, NTC or PTC	Pt 100, Pt 1000, NTC or PTC	Pt 100 or Pt 1000	Pt 100, Pt 1000, NTC or PTC		Pt 100, Pt1000, NTC or PTC	Thermo-couple	Thermo-couple	Pt 100	
Measuring insert	Fixed	Fixed	Fixed	Changeable	Fixed	Changeable	Fixed	Changeable	Changeable	
Media temperature	-50° to 200°C (-58° to 392° F)	-40° to 125°C (-40° to 257° F)	-50° to 120°C (-58° to 248° F)	-50° to 200°C (-58° to 392° F)	-50° to 200°C (-58° to 392° F)	-50° to 400°C (-58° to 752° F)	50° to 800°C (122° to 1472° F)	50° to 800°C (122° to 1472° F)	-50° to 600°C (-58° to 1112° F)	
Process connection	BSPP or NPT (when mounted with MBT120)	BSPP, NPT or Metric	BSPP or NPT	BSPP or NPT	BSPP or NPT	BSPP or NPT	BSPP or NPT	BSPP or NPT	BSPP or NPT	
Electrical connection	Cable	Various plugs or cable	Plug	Plug	Various plugs or cable	B-head (pg. 16)	Cable	B-head (pg. 16)	B-head (Pg 16), Slim-line (Pg 13.3)	
Enclosure	IP 67 NEMA 6	IP 65 NEMA 13	IP 54 NEMA 12	IP 65 NEMA 13	IP 65/67 NEMA 13/6	IP 65 NEMA 13		IP 65 NEMA 13	IP 65 NEMA 13	IP 54 NEMA 3S
Protection tube material	St. steel (when mounted with MBT 120)	St. steel or brass	Brass	St. steel	St. steel	St. steel	St. steel	St. steel	St. steel	
Approvals				Marine	CE and Marine (MBT 5560)	CE and Marine	Marine	CE and Marine	CE and Marine	CE and Marine
Can be used together with:										
MBD1000 display (plug Pg11 only)					•					

MBT 153

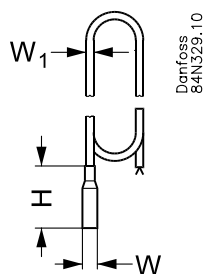


Cable type temperature sensor

- Reliable, robust and accurate temperature measurement and regulation
- Short response times
- Extremely flexible
- Can be combined with a sensor pocket (MBT 120)* to protect the silicone cable from the media
- Available with all relevant marine approvals

Technical data

Measuring range	-50° to 200°C (-58 to 392°F)
Cable type	PVC (Teflon cable available upon request)
Connection	2-wire or 4-wire
Sensor element	Pt 100 or Pt 1000



Dimensions and weight

H		W		W1		Weight	
mm	in	mm	in	mm	in	kg	lbs
40.6	1.6	5.6	0.22	4.8	0.19	0.18	0.4

Ordering - MBT 153

Sensor element	Cable length		Max. temperature		Code no.	Code no.
	ft	m	°C	°F	2-wire	4-wire
Pt 100	11.5	3.5	100	212	084Z6030	-
Pt 100	28.0	8.5	100	212	084Z6032	-
Pt 1000	18.0	5.5	100	212	084Z6034	-
Pt 1000	11.5	3.5	100	212	084Z6033	-
Pt 1000	28.0	8.5	100	212	084Z6035	-
Pt 100	11.5	3.5	200	392	084Z6036	084Z6215
Pt 100	18.0	5.5	200	392	084Z6037	084Z6042
Pt 100	28.0	8.5	200	392	084Z6038	084Z6216
Pt 1000	11.5	3.5	200	392	084Z6039	-

*See sensor pockets, MBT120, on page 64

MBT 5250

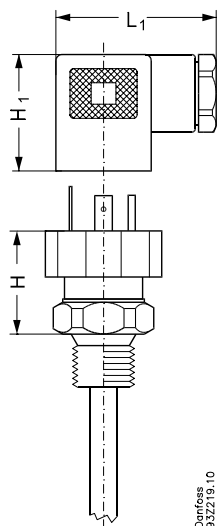


Temperature sensors

- Gold plated male and female connectors
- Available with all relevant marine approvals
- Interchangeable measuring insert
- High resistance towards vibration
- Can be combined with transducer, type MBT 9110, to provide 4-20mA signal
- Corrosion resistant sensor tube made of AISI 316 Ti
- Spring loaded element place-holder

Technical data

Measuring range	-50° to 200°C (-58° to 392°F)
Process connection	BSPP or NPT
Sensor element	Pt 100, Pt 1000, NTC* or PTC*
Electrical connection	Plug - Pg9, Pg11 or Pg13.5 (DIN 43650)
Enclosure	IP65 / NEMA 13



Dimensions and weight

H		L		L1		Weight	
mm	in	mm	in	mm	in	kg	lbs
55.9	2.2	10.2	0.4	50.8	2.0	0.14	0.3

Ordering - MBT 5250

Insertion length		Electrical connection	Process connection	Code no.
mm	in			
50	2	plug Pg 11	1/2 - 14 NPT	084Z8066
80	3 1/8	plug Pg 11	1/2 - 14 NPT	084Z8019
100	4	plug Pg 11	1/2 - 14 NPT	084Z8067
150	6	plug Pg 11	1/2 - 14 NPT	084Z8065
200	7 7/8	plug Pg 11	1/2 - 14 NPT	084Z8068

* Available upon request

MBT 5252



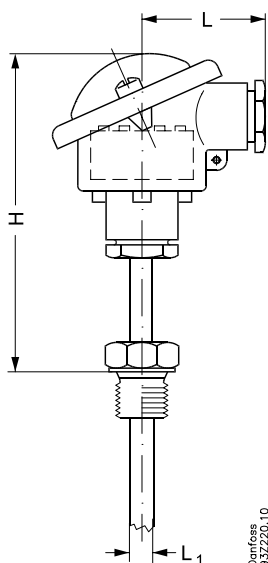
Temperature sensors and transducers

- Reliable, robust and accurate temperature measurement and regulation in industrial and maritime applications
- Heavy duty
- Versions available for high media temperatures (up to 400°C (752°F))
- High resistance towards vibration
- Available with all relevant marine approvals
- Available with built-in transducer, type MBT 9100, to provide 4 to 20 mA signal
- Interchangeable measuring insert
- Corrosion resistant sensor tube made of AISI 316 Ti
- Spring loaded element place-holder



Technical data

Measuring range	Low temperature version	-50° to 200°C (-58° to 392°F)
	High temperature version	-50° to 400°C (-58° to 752°F)
Process connection	BSPP or NPT	
Extension length	50 mm (2")	
Sensor element	Pt 100, Pt 1000, NTC* or PTC*	
Supply voltage	4 to 20 mA version only	8 to 35 V dc
Electrical connection	Plug - Pg9 (B-mini) or Pg16 (B-head)	
Enclosure	IP 65 / NEMA 13	



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932220.10

Dimensions and weight

H		L		L1		Weight	
mm	in	mm	in	mm	in	kg	lbs
124.5	4.9	10.2	0.4	50.8	2.0	0.45	1.0

* Available upon request

Ordering - MBT 5252

Insertion length		4 to 20 mA transducer output		Electrical connection	Process connection	Code no.
<i>mm</i>	<i>in</i>	°C	°F			
50	2	0 to 100	32 to 212	2-wire	1/2 - 14 NPT	084Z6171
80	3 1/8	0 to 100	32 to 212	2-wire	1/2 - 14 NPT	084Z6172
100	4	0 to 100	32 to 212	2-wire	1/2 - 14 NPT	084Z6173
150	6	0 to 100	32 to 212	2-wire	1/2 - 14 NPT	084Z6174
200	7 7/8	0 to 100	32 to 212	2-wire	1/2 - 14 NPT	084Z6175
250	9 7/8	0 to 100	32 to 212	2-wire	1/2 - 14 NPT	084Z6176
50	2	-	-	2-wire, 3 terminals	1/2 - 14 NPT	084Z6165
80	3 1/8	-	-	2-wire, 3 terminals	1/2 - 14 NPT	084Z6166
100	4	-	-	2-wire, 3 terminals	1/2 - 14 NPT	084Z6167
150	6	-	-	2-wire, 3 terminals	1/2 - 14 NPT	084Z6168
200	7 7/8	-	-	2-wire, 3 terminals	1/2 - 14 NPT	084Z6169
250	9 7/8	-	-	2-wire, 3 terminals	1/2 - 14 NPT	084Z6170

MBT 3560 / MBT 5560



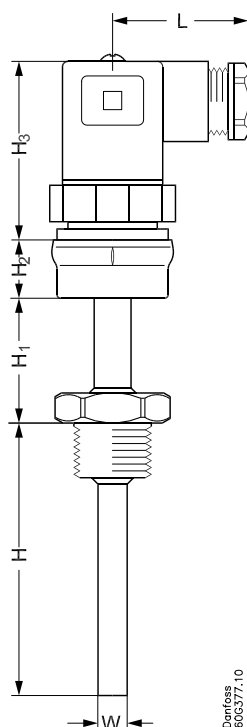
Temperature transducers

- Reliable, robust and accurate temperature measurement and regulation
- Ultra compact design
- Customized setting of temperature range available upon request
- Fixed measuring insert
- Available with all relevant marine approvals (MBT 5560)
- Corrosion resistant sensor tube made of AISI 316 Ti
- Spring loaded element place-holder



Technical data

Measuring range	With 33mm (1.3") extension	-50° to 200°C (-60° to 390°F)
	Without extension	-50° to 100°C (-60° to 212°F)
Process connection	BSPP or NPT	
Output signal	4 to 20 mA or ratiometric	
Supply voltage	Output signal = 4 to 20 mA	10 to 30 V dc
	Output signal = ratiometric	4.75 to 8 V dc
Electrical connection	Various plugs or cable	
Enclosure	IP 65 / NEMA 13 or IP 67 / NEMA 6	



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606377.10

Dimensions and weight

H		H1		H2		H3	
mm	in	mm	in	mm	in	mm	in
50 to 250	2 to 9.8	33	1.3	16	5/8	49	1.93

L		W		Weight	
mm	in	mm	in	kg	lbs
37	1.45	8	10/32	0.17	0.37

Ordering - MBT 3560

Insertion length		Extension length		4 to 20 mA transducer setting		Electrical connection	Process connection	Code no.
mm	in	mm	in	°C	°F			
50	2	-	-	0 to 100	32 to 212	2-wire	G 1/4 A (BSPP)	084Z4030
100	4	-	-	0 to 100	32 to 212	2-wire	G 1/4 A (BSPP)	084Z4031
150	6	-	-	0 to 100	32 to 212	2-wire	G 1/4 A (BSPP)	084Z4032
200	7 7/8	-	-	0 to 100	32 to 212	2-wire	G 1/4 A (BSPP)	084Z4033
250	9 7/8	-	-	0 to 100	32 to 212	2-wire	G 1/4 A (BSPP)	084Z4034
50	2	33	1.3	0 to 200	32 to 392	2-wire	G 1/4 A (BSPP)	084Z4035
100	4	33	1.3	0 to 200	32 to 392	2-wire	G 1/4 A (BSPP)	084Z4036
150	6	33	1.3	0 to 200	32 to 392	2-wire	G 1/4 A (BSPP)	084Z4037
200	7 7/8	33	1.3	0 to 200	32 to 392	2-wire	G 1/4 A (BSPP)	084Z4038
250	9 7/8	33	1.3	0 to 200	32 to 392	2-wire	G 1/4 A (BSPP)	084Z4039

Ordering - MBT 5560

Versions with marine approvals

Insertion length		Extension length		4 to 20 mA transducer setting		Electrical connection	Process connection	Code no.
mm	in	mm	in	°C	°F			
50	2	-	-	0 to 100	32 to 212	2-wire	G 1/4 A (BSPP)	084Z4020
100	4	-	-	0 to 100	32 to 212	2-wire	G 1/4 A (BSPP)	084Z4021
150	6	-	-	0 to 100	32 to 212	2-wire	G 1/4 A (BSPP)	084Z4022
200	7 7/8	-	-	0 to 100	32 to 212	2-wire	G 1/4 A (BSPP)	084Z4023
250	9 7/8	-	-	0 to 100	32 to 212	2-wire	G 1/4 A (BSPP)	084Z4024
50	2	33	1.3	0 to 200	32 to 392	2-wire	G 1/4 A (BSPP)	084Z4025
100	4	33	1.3	0 to 200	32 to 392	2-wire	G 1/4 A (BSPP)	084Z4026
150	6	33	1.3	0 to 200	32 to 392	2-wire	G 1/4 A (BSPP)	084Z4027
200	7 7/8	33	1.3	0 to 200	32 to 392	2-wire	G 1/4 A (BSPP)	084Z4028
250	9 7/8	33	1.3	0 to 200	32 to 392	2-wire	G 1/4 A (BSPP)	084Z4029



Accessories and spare parts for temperature sensors and transducers

Sensor pockets for MBT 153 - MBT 120

Insertion length		Process connection	Code no.
mm	in		
50	2	1/2 - 14 NPT	084Z6070
100	4	1/2 - 14 NPT	084Z6071
200	7 7/8	1/2 - 14 NPT	084Z6073
250	9 7/8	1/2 - 14 NPT	084Z6074

Measuring inserts for MBT 5250 - MBT 150

Insertion length		Sensor element	Code no.
mm	in		
50	2	Pt 100	084Z8049
50	2	Pt 1000	084Z6012
80	3 1/8	Pt 100	084Z8072
100	4	Pt 100	084Z8015
100	4	Pt 1000	084Z6014
150	5 9/10	Pt 100	084Z8016
200	7 7/8	Pt 100	084Z8073

Measuring inserts for MBT 5252 without transducers - MBT 152

Insertion length		Sensor element	Code no.
mm	in		
50	2	Pt 100	084Z4302
80	3 1/8	Pt 100	084Z4303
100	4	Pt 100	084Z4304
150	6	Pt 100	084Z4305
200	7 7/8	Pt 100	084Z4306

Measuring inserts for MBT 5252 with 4 to 20 mA transducers - MBT 152

Insertion length		Transducer setting		Code no.
mm	in	°C	°F	
50	2	0 to 100	32 to 212	084Z4308
80	3 1/8	0 to 100	32 to 212	084Z4309
100	4	0 to 100	32 to 212	084Z4310
150	6	0 to 100	32 to 212	084Z4311
200	7 7/8	0 to 100	32 to 212	084Z4312
250	9 7/8	0 to 100	32 to 212	084Z4313

Sensor pockets for MBT 3560 / MBT 5560 - MBT 120

MBT3560 / MBT5560 Insertion length		Pocket insertion length		Process connection	Code no.
mm	in	mm	in		
50	2	37.5	1.47	G 1/2 A (BSPP)	084Z7258
50	2	37.5	1.47	1/2 - 14 NPT	084Z3033
100	4	87.5	3.44	G 1/2 A (BSPP)	084Z7259
100	4	87.5	3.44	1/2 - 14 NPT	084Z3053
150	6	137.5	5.41	G 1/2 A (BSPP)	084Z7260
200	7 7/8	187.5	7.38	G 1/2 A (BSPP)	084Z7261
250	9 7/8	237.5	9.35	G 1/2 A (BSPP)	084Z7262

Plug-in display for MBT 3560 / MBT 5560 - MBD 1000*

	Code no.
	060G2850

* For plug Pg9 versions only



Code number index

003N0051	23	018F7692	18	032U6320	16
003N0053	23	018F7693	18	032U6321	16
003N0056	23	032K140902	19	032U6322	16
003N0062	23	032U0149	16	032U6323	16
003N0063	23	032U0150	16	032U6324	16
003N0066	23	032U1062	16	032U6325	16
003N0068	23	032U1063	16	032U6326	16
003N0075	23	032U1065	16	032U6327	16
003N0077	23	032U1066	16	032U6328	16
003N0078	23	032U1067	16	032U6329	16
003N0079	23	032U1068	16	032U6330	16
003N0080	23	032U1069	16	032U6331	16
003N0091	23	032U1070	16	032U6501	7
003N0157	23	032U1071	16	032U6502	7
003N0278	23	032U1072	16	032U6503	7
003N0388	23	032U1073	16	032U6505	7
003N6115	23	032U1074	16	032U6506	7
003N6132	23	032U1075	16	032U6509	7
003N6182	23	032U1076	16	032U6511	7
003N6262	23	032U1077	16	032U6513	9
003N7120	23	032U1078	16	032U6514	9
003N7132	23	032U1079	16	032U6515	9
003N7162	23	032U1080	16	032U6516	9
003N7182	23	032U1081	16	032U6517	9
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