

3/2 way solenoid valve normally closed or normally open

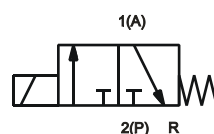
type 84, body brass

direct operated, DN 1,5 – 4,0 mm, G1/8 – G1/4

BONOMI
SCANDINAVIA

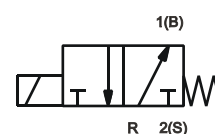


operating mode C



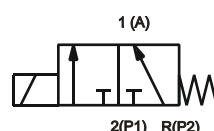
normally closed

operating mode D



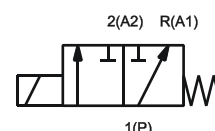
normally open

operating mode E



mixer function

operating mode F



distribution function

SPECIFICATION	
general	
type of construction	3/2-poppet valve, normally closed NC or normally open NO, coil 360° rotatable
operator	solenoid, or optional by manual override
ports	G1/8, G1/4, tube with G1/8 female thread
ambient temperature	-20°C to +50°C, higher allowed ambient temperatures on request
fluid temperature	dependent on sealing material and coil
viscosity	max. 21mm ² /s (cst) bzw 3°E
material	body and tube: brass inner parts and nozzle : stainless steel AISI 303 and AISI 430FR sealing: see type selection
mounting	2 threads M4
installation	in any position, preferable vertical fixed solenoid coil
unit of supply	without connector
electrical data	
voltage	DC voltage or AC voltage
standard voltage	24V DC, 24V AC, 230V AC
special voltage on request	6V-207V DC, 12V-240V, 50Hz or 60Hz
acceptable voltage tolerance	+/- 10%
power consumption	see specifications at solenoid coils
coil type	temperature class F (155°C), winding class H (180°C)
duty cycle	100% ED (DB), continuous operation
protection class	IP65 according DIN EN 60529 (DIN 40050) with correctly mounted connector
pneumatic – hydraulic	
flow medium	all liquids and gases, which don't attack the used material
response time	12 – 20ms
special equipment on request	stainless steel AISI303 in place of brass, coil type with cable, bright nickel-plated or chemical nickel-plated, coil EExmII T5, coils for temperature class H (180°C), other sealing materials

type 84C, 3/2 way solenoid valve normally closed, pressure port at 2 (P), spring set E (13N)					
type * (order-nr.)	ports	NW DN (mm)	maximum differential pressure in bar **	kv-value body nozzle (m³/h)	kv-value pole nozzle (m³/h)
84C-1.1515EA-A E1AA	G1/8	1,5	0 – 18	0,08	0,07
84C-2.1515EA-A E1AA	G1/4				
84C-1.2020EA-A E1AA	G1/8	2,0	0 – 13	0,13	0,12
84C-2.2020EA-A E1AA	G1/4				
84C-1.2525EA-A E1AA	G1/8	2,5	0 – 8	0,19	0,18
84C-2.2525EA-A E1AA	G1/4				
84C-1.3030EA-A E1AA	G1/8	3,0	0 – 6	0,25	0,23
84C-2.3030EA-A E1AA	G1/4				
84C-1.3530EA-A E1AA	G1/8	3,5	0 – 3,5	0,30	0,23
84C-2.3530EA-A E1AA	G1/4				
84C-1.4030EA-A E1AA	G1/8	4,0	0 – 2,5	0,37	0,23
84C-2.4030EA-A E1AA	G1/4				
84C-1.1515EA-A EXFA	G1/8	1,5	0 – 18	0,08	0,07
84C-2.1515EA-A EXFA	G1/4				
84C-1.2020EA-A EXFA	G1/8	2,0	0 – 13	0,13	0,12
84C-2.2020EA-A EXFA	G1/4				
84C-1.2525EA-A EXFA	G1/8	2,5	0 – 8	0,19	0,18
84C-2.2525EA-A EXFA	G1/4				
84C-1.3030EA-A EXFA	G1/8	3,0	0 – 6	0,25	0,23
84C-2.3030EA-A EXFA	G1/4				
84C-1.3530EA-A EXFA	G1/8	3,5	0 – 3,5	0,30	0,23
84C-2.3530EA-A EXFA	G1/4				
84C-1.4030EA-A EXFA	G1/8	4,0	0 – 2,5	o	0,23
84C-2.4030EA-A EXFA	G1/4				

type 84C, 3/2 way solenoid valve normally closed, pressure port at 2 (P), spring set F (22N)					
type * (order-nr.)	ports	NW DN (mm)	maximum differential pressure in bar **	kv-value body nozzle (m³/h)	kv-value pole nozzle (m³/h)
84C-1.1515FA-A E3AE	G1/8	1,5	0 – 30	0,08	0,07
84C-2.1515FA-A E3AE	G1/4				
84C-1.2020FA-A E3AE	G1/8	2,0	0 – 23	0,13	0,12
84C-2.2020FA-A E3AE	G1/4				
84C-1.2525FA-A E3AE	G1/8	2,5	0 – 18	0,19	0,18
84C-2.2525FA-A E3AE	G1/4				
84C-1.3030FA-A E3AE	G1/8	3,0	0 – 14	0,25	0,23
84C-2.3030FA-A E3AE	G1/4				
84C-1.3530FA-A E3AE	G1/8	3,5	0 – 10	0,30	0,23
84C-2.3530FA-A E3AE	G1/4				
84C-1.4030FA-A E3AE	G1/8	4,0	0 – 8	0,37	0,23
84C-2.4030FA-A E3AE	G1/4				

* Type designation (order-nr.) must be completed with sealing material, coil and supply voltage. (see order code)

** All specifications refer to fluids with a maximum viscosity of 37 cst. (5°E). Higher viscosities cause extended response time and need a special specification of the valve.

sealing material	Code	fluid temperature	applicable for	standard voltage	Code
NBR (Perbunan)	B	max. 80 °C	neutral gases and liquids	24V = DC	02400
EPDM	E	max. 120 °C	hot water, steam, not for oil and grease	24V ~ (50Hz)	02450
FPM	V	max. 130 °C	oil, petrol, oxygen	230V ~ (50Hz)	23050

coil power consumption at 20 °C, protection class, interface					
coil type	inrush power ~ (50Hz) VA	rated power ~ (50Hz) VA	power = (DC) (W)	protection class with/without connector	interface
E1AA	32	14	12	IP65 / IP00	Connector DIN EN 175301 – 803 (DIN 43650), type A
E3AE	70	32	27	IP65 / IP00	Connector DIN EN 175301 – 803 (DIN 43650), type A
EXFA	9	9	10,3	IP65	Coil explosion proof according to ATEX II 2G Ex mb II T4 II 2D ExtDA21 IP65 T130°C cable length 3 meter

ORDER CODE	84 C - 2 B 20 20 E A - A E1AA 23050						
	type	function	ports	seals material	nominal size seat body	nominal size seat pole	supply voltage
type	type 84, body brass, tube stainless steel						
function	C = normally closed, D = normally open, E = mixer function, F = distribution function						
ports	1 = G1/8, 2 = G1/4						
seal material	B = NBR (Perbunan), E = EPDM, V = FPM						
nominal size seat body	15 = 1,5 mm, 20 = 2,0 mm, 25 = 2,5mm, 30 = 3,0 mm, 35 = 3,5mm, 40 = 4,0 mm						
nominal size seat pole	15 = 1,5 mm, 20 = 2,0 mm, 25 = 2,5mm, 30 = 3,0 mm,						
external core spring	A = normally open, E = normally closed (spring set 13N), F = normally closed (spring set 22N)						
internal core spring	A = normally closed, B = normally open						
short circuit ring	A = copper short circuit ring, X = without short circuit ring						
coil type	see specifications of the particular coil						
supply voltage	always 5-digit, see code of standard voltage						

type 84D, 3/2 way solenoid valve normally open, pressure port at 3 (R)

type * (order-nr.)	threaded connection	NW DN body nozzle (mm)	NW DN pole nozzle (mm)	maximum differential pressure in bar **		kv-value body nozzle (m³/h)	kv-value pole nozzle (m³/h)
				fluid compressed air	fluid water		
84D-1.1515AB-A E1AA	G1/8	1,5	1,5	0 – 26	0 – 23	0,08	0,07
84D-2.1515AB-A E1AA	G1/4						
84D-1.2020AB-A E1AA	G1/8	2,0	2,0	0 – 16	0 – 14	0,13	0,12
84D-2.2020AB-A E1AA	G1/4						
84D-1.2525AB-A E1AA	G1/8	2,5	2,5	0 – 11	0 – 10	0,19	0,18
84D-2.2525AB-A E1AA	G1/4						
84D-1.3030AB-A E1AA	G1/8	3,0	3,0	0 – 7	0 – 6	0,25	0,23
84D-2.3030AB-A E1AA	G1/4						
84D-1.1515AB-A EXFA	G1/8	1,5	1,5	0 – 26	0 – 23	0,08	0,07
84D-2.1515AB-A EXFA	G1/4						
84D-1.2020AB-A EXFA	G1/8	2,0	2,0	0 – 16	0 – 14	0,13	0,12
84D-2.2020AB-A EXFA	G1/4						
84D-1.2525AB-A EXFA	G1/8	2,5	2,5	0 – 11	0 – 10	0,13	0,18
84D-2.2525AB-A EXFA	G1/4						
84D-1.3030AB-A EXFA	G1/8	3,0	3,0	0 – 7	0 – 6	0,25	0,23
84D-2.3030AB-A EXFA	G1/4						

* Type designation (order-nr.) must be completed with sealing material, coil and supply voltage. (see order code)

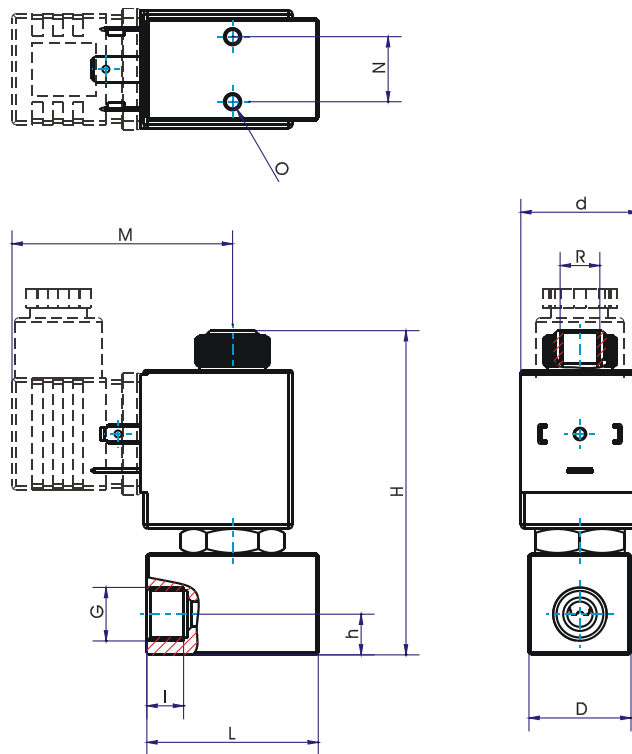
** All specifications refer to fluids with a maximum viscosity of 31 cst. (3°E). Higher viscosities cause extended response time and need a special specification of the valve.

type 84E, 3/2 way solenoid valve with mixer function

technical data on request according to the input pressures at 2 und p2.

type 84F, 3/2 way solenoid valve with distribution function

technical data on request according to the pressure level at 1,2 und R.



dimension table for type 84 in mm, weight approx. in g

G	N	O	H	h	I	L	D	R	coil E1AA		coil EXFA		coil E3AE		weight approx .g		
									M	d	M	d	M	d	coil E1AA	coil EXFA	coil E3AE
G 1/8	16	M4	80	10	9	42	25	G 1/8	52	30	45	30	54	36	360	700	446
G 1/4															350	690	436