80265 series, 3/2
Indirect solenoid actuated poppet valve

- Port size: G1/2 ... G2
- High flow rate
- For high switching frequencies at low electrical power
- High repeatability of switching time
- Variable valve solenoid combination



Technical features

Medium:
Compressed air, filtered, lubricated or non-lubricated

Operation:
Indirect solenoid operated poppet valve

Operating pressure:
-1 ... 10 bar (-14 ... 145 psi)

Orifice:
15 ... 50 mm

Port size:
G1/2, G3/4, G1, G1 1/2, G2

Flow direction:
Fixed

Mounting position:
Any, but preferably with solenoid vertical
In severe shocks solenoid vertical perpendicular to the axis of oscillation

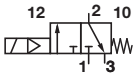
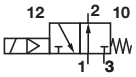
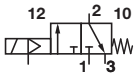
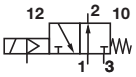
Ambient/Media temperature:
-10 ... +60°C (+14 ... +140°F)
Depending on solenoid system.
Air supply must be dry enough to avoid ice formation at temperatures below +2°C (35°F).

Material:
Body: Aluminium
Seals: PUR
Inner parts: POM

Further versions:
On request

Flow conversion:
Cv US Gallon/min (water) = l/min (air) x 0,001
Kv m^3/h (water) = l/min (air) x 0,000906

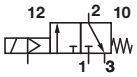
Technical data

Symbol	Port size 1	2	3	Orifice (mm)	Pilot supply	Flow (l/min)	Operating pressure (bar)	(psi)	Pilot pressure (bar)	(psi)	Weight (kg)	Model *1)
	G1/2	G1/2	G3/4	15	Internal	5500	2 ... 10	29 ... 145	–	–	1,3	8026570
	G3/4	G3/4	G1	20	Internal	8000	2 ... 10	29 ... 145	–	–	1,5	8026670
	G1	G1	G1	25	Internal	9000	2 ... 10	29 ... 145	–	–	1,5	8026770
	G1	G1 1/4	G1 1/4	32	Internal	14000	2 ... 10	29 ... 145	–	–	3,0	8026870
	G1 1/2	G1 1/2	G1 1/2	40	Internal	21000	2 ... 10	29 ... 145	–	–	3,8	8026970
	G 2	G 2	G 2	50	Internal	31000	2 ... 10	29 ... 145	–	–	6,8	8027070
	G1/2	G1/2	G3/4	15	Internal	5500	2 ... 10	29 ... 145	–	–	1,3	8028570
	G3/4	G3/4	G1	20	Internal	8000	2 ... 10	29 ... 145	–	–	1,5	8028670
	G1	G1	1	25	Internal	9000	2 ... 10	29 ... 145	–	–	1,5	8028770
	G1	G1 1/4	G1 1/4	32	Internal	14000	2 ... 10	29 ... 145	–	–	3,0	8028870
	G1 1/2	G1 1/2	G1 1/2	40	Internal	21000	2 ... 10	29 ... 145	–	–	3,8	8028970
	G2	G2	G2	50	Internal	31000	2 ... 10	29 ... 145	–	–	6,8	8029070
	G1/2	G 1/2	G3/4	15	External	5500	0 ... 10	0 ... 145	2 ... 10	29 ... 145	1,3	8026571
	G3/4	G3/4	G1	20	External	8000	0 ... 10	0 ... 145	2 ... 10	29 ... 145	1,5	8026671
	G1	G1	G1	25	External	9000	0 ... 10	0 ... 145	2 ... 10	29 ... 145	1,5	8026771
	G1	G1 1/4	G1 1/4	32	External	14000	0 ... 10	0 ... 145	2 ... 10	29 ... 145	3,0	8026871
	G1 1/2	G1 1/2	G1 1/2	40	External	21000	0 ... 10	0 ... 145	2 ... 10	29 ... 145	3,8	8026971
	G2	G2	G2	50	External	31000	0 ... 10	0 ... 145	2 ... 10	29 ... 145	6,8	8027071
	G1/2	G1/2	G3/4	15	External	5500	2 ... 10	29 ... 145	2 ... 10	29 ... 145	1,3	8028571
	G3/4	G3/4	G1	20	External	8000	2 ... 10	29 ... 145	2 ... 10	29 ... 145	1,5	8028671
	G1	G1	G1	25	External	9000	2 ... 10	29 ... 145	2 ... 10	29 ... 145	1,5	8028771
	G1	G1 1/4	G1 1/4	32	External	14000	2 ... 10	29 ... 145	2 ... 10	29 ... 145	3,0	8028871
	G1 1/2	G1 1/2	G1 1/2	40	External	21000	2 ... 10	29 ... 145	2 ... 10	29 ... 145	3,8	8028971
	G2	G2	G2	50	External	31000	2 ... 10	29 ... 145	2 ... 10	29 ... 145	6,8	8029071

*1) When ordering please indicate solenoid, voltage, current type (frequency).

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Models for vacuum

Symbol	Port size 1	2	3	Orifice (mm)	Pilot supply	Flow (l/min)	Operating pressure (bar)	(psi)	Pilot pressure (bar)	(psi)	Weight (kg)	Model *1)
	G1/2	G1/2	G3/4	15	External	5500	-1 ... 6	-14 ... 87	4 ... 10	58 ... 145	1,3	8026572
	G3/4	G3/4	G1	20	External	8000	-1 ... 6	-14 ... 87	4 ... 10	58 ... 145	1,5	8026672
	G1	G1	G1	25	External	9000	-1 ... 6	-14 ... 87	4 ... 10	58 ... 145	1,5	8026772
	G1	G1 1/4	G1 1/4	32	External	14000	-1 ... 6	-14 ... 87	4 ... 10	58 ... 145	3,0	8026872
	G1 1/2	G1 1/2	G1 1/2	40	External	21000	-1 ... 6	-14 ... 87	4 ... 10	58 ... 145	3,8	8026972
	G 2	G 2	G 2	50	External	31000	-1 ... 6	-14 ... 87	4 ... 10	58 ... 145	6,8	8027072

*1) When ordering please indicate solenoid, voltage, current type (frequency).

Solenoids

	Power consumption 24 V d.c. (W)	230 V a.c. (VA)	Rated current 24 V d.c. (m A)	230 V a.c. (m A)	Protection class IP/NEMA	Ex-Protection (ATEX-Category)	Temperature Ambient/Media (°C)	Electrical connection	Weight (kg)	Drawing No.	Circuit diagram No.	Model
	16,9	–	703	–	IP65 (with connector)	–	-25 ... +60 Media: +80 max	Connector DIN EN 175301-803, form A *2)	0,26	1	5	0800
	–	17,3	–	75	IP65 (with connector)	–	-25 ... +60 Media: +80 max	Connector DIN EN 175301-803, form A *2)	0,35	2	8	3803
	11,4	–	475	–	IP66 (with cable gland)	II 2G Ex eb mb IIC T4/ T5 Gb II 2D Ex tb IIIC T130°C Db	T4: -40 ... +50 T5: -40 ... +40 -40 ... +50	M20 x 1,5 *2)	0,5	3	6	4280
	–	15,2	–	66	IP66 (with cable gland)	II 2G Ex eb mb IIC T4/ T5 Gb II 2D Ex tb IIIC T130°C Db	T4: -40 ... +50 T5: -40 ... +40 -40 ... +50	M20 x 1,5 *2)	0,5	3	9	4281
	13,6	–	567	–	4x	Cl. I, Div. 1, Gr. A - D Cl. II/III, Div. 1, Gr. E - G T3C (160°C)	-20 ... +60	Flying leads length 460 mm	0,5	4	5	3826
	–	15,7 *3)	–	130 *3)	4x	Cl. I, Div. 1, Gr. A - D Cl. II/III, Div. 1, Gr. E - G T3C (160°C)	-20 ... +60	Flying leads length 460 mm	0,5	4	7	3827

Standard voltages (±10%) 24 V d.c., 230 V a.c., other voltages on request. Design according to VDE 0580, EN 50014/50028. 100% duty cycle.
*2) Connector/cable gland is not scope of delivery, see table »Accessories«
*3) only 120 V 60Hz possible

Model	Approvals ATEX	IECEx	Datasheet
42xx	KEMA 98 ATEX 4452 X	IECEx KEM 09.0068X	7.1.580

Accessories

Electrical connection

Cable gland
Protection class Ex e, Ex d (ATEX)



Page 5

For solenoid	Thread	Cable ø (mm)	Material	Protection class (ATEX)	Ambient temperatur limitation *3)	Model
42xx	M20 x 1,5	7,0 ... 12,0	Kunststoff	II 2G Ex e / II 2D Ex t	Siehe Tabelle	0589735
42xx	M20 x 1,5	10,0 ... 14,0	Kunststoff	II 2G Ex e / II 2D Ex t	Siehe Tabelle	0589736
42xx	M20 x 1,5	6,0 ... 12,0	Kunststoff	II 2G Ex e / II 2D Ex t	Siehe Tabelle	0589737
42xx	M20 x 1,5	5,0 ... 10,0	Kunststoff	II 2G Ex e / II 2D Ex t	Siehe Tabelle	0589739

*3) The limitation of the temperature range to the mentioned range is due to the self-heating of the solenoid.

Partnumbers for international approval

Country/Admission	Solenoid/Code	42xx
Europa/ATEX	Standard	x
International/IECEx	Standard	x
China/NEPSI	-01	x
Brasilien/INMETRO	-02	x
Korea/KOSHA (only gas approval)	-03	x
Russland, Kasachstan & Weißrussland/TR-CU 012	-04	x
Indien/CCOE	Standard	x
Taiwan/ITRI	Standard	x
FM/USA	Standard	–
CSA/Kanada	Standard	–

Example: 0000000428002400-04
(Coil: 4280; Voltage: 24V DC; Approval: TR-CU 012)

For solenoid	Ambient temperatur limitation solenoid 42xx 0589735 & 0589736 *4)	0589737	0589739 *4)
423x/428x	T4 & Dust Ex: -35°C...+50°C T5: -35°C...+40°C	T4 & Dust Ex: -40°C...+50°C T5: -40°C...+40°C	T4 & Dust Ex:-40°C...+50°C T6: -40°C...+40°C

*4) Tested for the lower level of mechanical risk (4 joule), an additional protection against
impacts might be needed.

Connector
DIN EN 175301-803



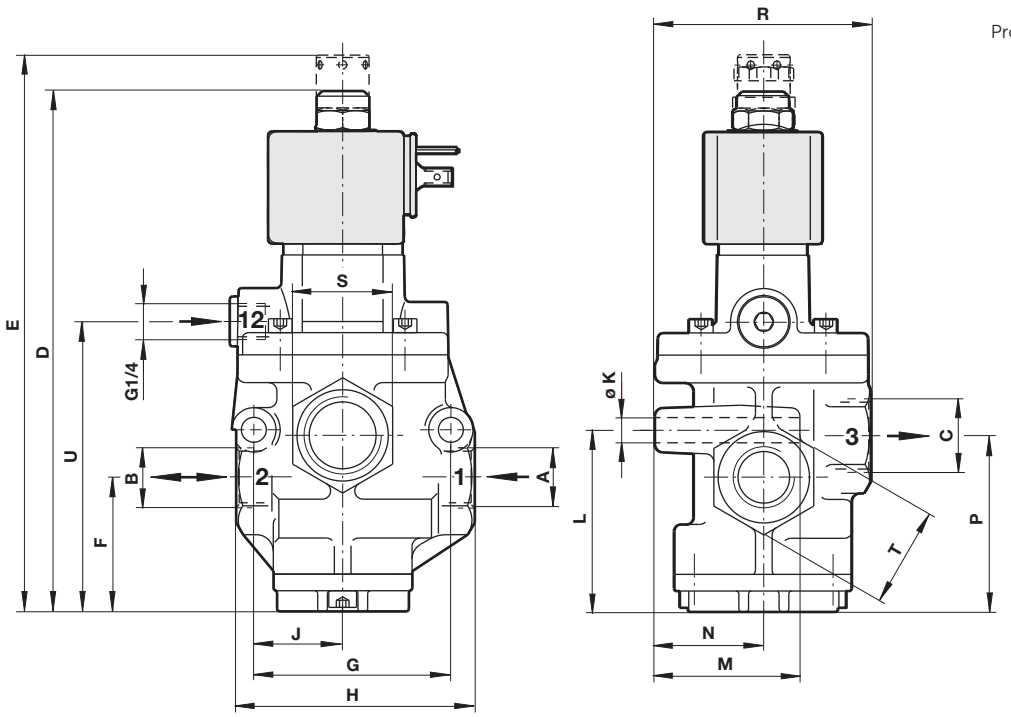
0570275 (form A)

Further Connectors see Data-sheet 7.1.507

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Drawing - Valve

Dimensions in mm
Projection/First angle



1 Solenoid can be indexed by 4 x 90°

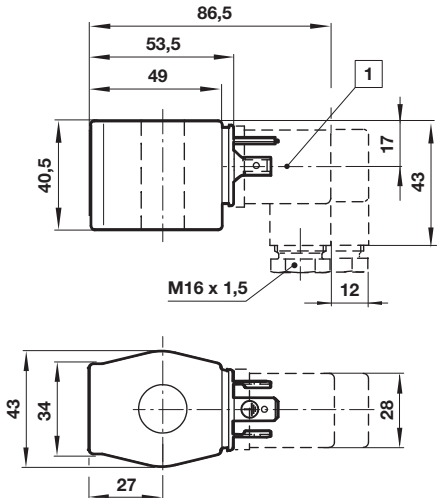
A	B	C	D	E	F	G	H	J	ø K	L	M	P	R	S	T	U	Model
G1/2	G1/2	G3/4	187,5	–	48	71	86	32	9	65,5	52	63,5	78	36	36	104,5	802657
G3/4	G3/4	G1	197,5	–	51,5	82,5	112	39	9	74,5	54	73	92	46	46	114,5	802667
G1	G1	G1	197,5	–	51,5	82,5	112	39	9	74,5	54	73	92	46	46	114,5	802677
G1	G1 1/4	G1 1/4	239	–	70	104	142	48	11	108	64	98	108	60	60	148	802687
G1 1/2	G1 1/2	G1 1/2	265	–	85	118	164	50,5	14	121,5	70	115,5	123	60	68	168	802697
G2	G2	G2	304	–	98	148	200	66	18	144	85	137	153	90	90	204	802707
G1/2	G1/2	G3/4	–	200,5	48	71	86	32	9	65,5	52	63,5	78	36	36	104,5	802857
G3/4	G3/4	G1	–	210,5	51,5	82,5	112	39	9	74,5	54	73	92	46	46	114,5	802867
G1	G1	G1	–	210,5	51,5	82,5	112	39	9	74,5	54	73	92	46	46	114,5	802877
G1	G1 1/4	G1 1/4	–	252	70	104	142	48	11	108	64	98	108	60	60	148	802887
G1 1/2	G1 1/2	G1 1/2	–	279	85	118	164	50,5	14	121,5	70	115,5	123	60	68	168	802897
G2	G2	G2	–	317	98	148	200	66	18	144	85	137	153	90	90	204	802907

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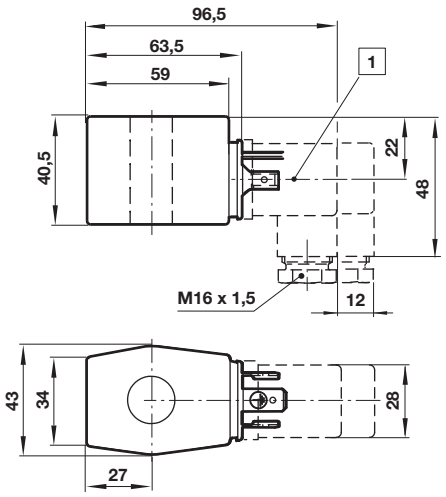
Drawings - Solenoids

Dimensions in mm
Projection/First angle

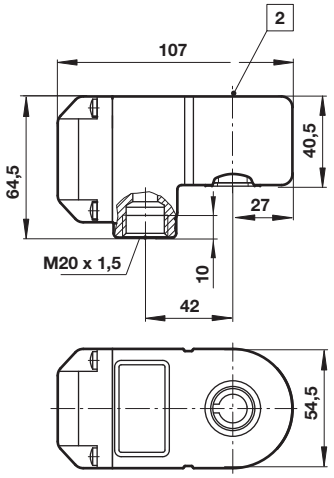
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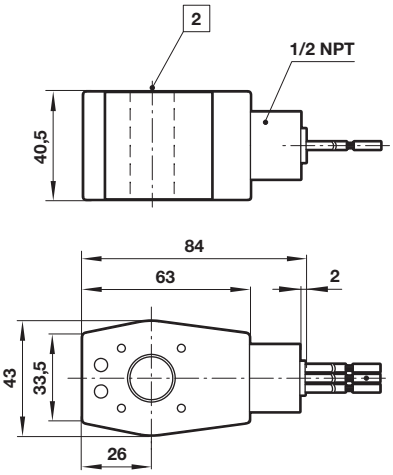
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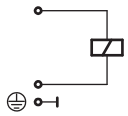
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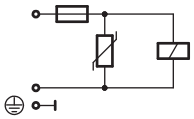
1 Connector can be indexed by 4x90°
2 ø 16 (with spacer tube)

Circuit diagrams

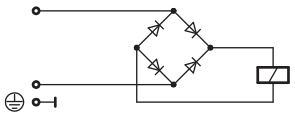
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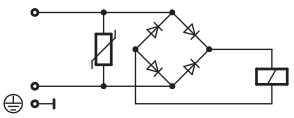
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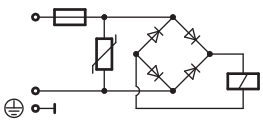
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8

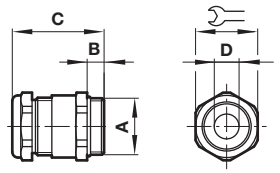


9



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Cable gland



A	B	C	ø D	⌲	Model
M20 x 1,5	10	40	7,0 ... 12,0	24	0589735
M20 x 1,5	10	43	10,0 ... 14,0	27	0589736
M20 x 1,5	10	40	6,0 ... 12,0	24	0589737
M20 x 1,5	10	39,5	5,0 ... 10,0	24	0589739

Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under **»Technical features/ data«.**

Before using these products with fluids other than those specified, for non-industrial applications, life-support systems or other applications not within published specifications,
consult Norgren Ltd.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes.

The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.

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