

# 70300, 2/2

## Indirect solenoid actuated poppet valves

- G1/2 ... 1
- High flow rate
- Variable valve solenoid combination
- Standard manual override with normally closed valves



### Technical features

<p><b>Medium:</b> Compressed air, filtered, lubricated or non-lubricated</p> <p><b>Operation:</b> Indirect solenoid operated poppet valve (versions with external pilot port available)</p> <p><b>Operating pressure:</b> See table below</p>	<p><b>Orifice:</b> 12 ... 25 mm</p> <p><b>Port size:</b> G1/2, G3/4 or G1</p> <p><b>Flow direction:</b> Fixed</p> <p><b>Mounting position:</b> Any, but preferably with solenoid vertical</p>	<p><b>Ambient/Media temperature:</b> -10 ... +60°C (-13 ... +176°F) Depending on solenoid system. Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F).</p> <p><b>Material:</b> Body: Aluminium Inner parts: POM Seals: PUR</p>	<p><b>Further versions</b> With manual override Others on request</p> <p><b>Flow conversion:</b> Cv US Gallon/min (water) = l/min (air) x 0,001 Kv m<sup>3</sup>/h (water) = l/min (air) x 0,000906</p>
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### Technical data

#### Standard version - Internal Pilot supply

Symbol	Port size	Orifice (mm)	Actuation/return	Flow (l/min)	Operating pressure (bar)	Switching time (ms)	Dimension No.	Model *1)
	G1/2	12	Solenoid/spring	3000	1 ... 16	20	1	7030117
	G3/4	20	Solenoid/spring	8500	1 ... 16	25	3	7032130
	G1	25	Solenoid/spring	8500	1 ... 16	25	3	7032230
	G3/4	20	Solenoid/spring	8500	1 ... 15	25	3	7032630
	G1	25	Solenoid/spring	8500	1 ... 15	25	3	7032730

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

#### Standard version - External Pilot supply

Symbol	Port size	Orifice (mm)	Actuation/return	Flow (l/min)	Operating pressure (bar)	Pilot pressure (bar)	Switching time (ms)	Dimension No.	Model *1)
	G3/4	20	Solenoid/spring	8500	0 ... 15	1 ... 16	25	3	7032131
	G1	25	Solenoid/spring	8500	0 ... 15	1 ... 16	25	3	7032231
	G3/4	20	Solenoid/spring	8500	0 ... 14	1 ... 15	25	3	7032631
	G1	25	Solenoid/spring	8500	0 ... 14	1 ... 15	25	3	7032731





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

#### Vacuum version - External Pilot supply

Symbol	Port size	Orifice (mm)	Actuation/return	Flow (l/min)	Operating pressure (bar)	Pilot pressure (bar)	Switching time (ms)	Dimension No.	Model *1)
	G1/2	12	Solenoid/spring	3000	-1 ... 6	4 ... 10	20	2	7030118
	G3/4	20	Solenoid/spring	8500	-1 ... 6	4 ... 10	25	3	7032132
	G1	25	Solenoid/spring	8500	-1 ... 6	4 ... 10	25	3	7032232
	G1/2	12	Solenoid/spring	3000	-1 ... 6	4 ... 10	20	2	7030709
	G3/4	20	Solenoid/spring	8500	-1 ... 6	4 ... 10	25	3	7032632
	G1	25	Solenoid/spring	8500	-1 ... 6	4 ... 10	25	3	7032732

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

## Solenoids group

	Power consumption		Rated current		Protection class IP/NEMA	Ex-Protection (ATEX-Category)	Temperature Ambient/Media (°C)	Electrical connection	Weight (kg)	Drawing No.	Circuit diagram No.	Model
	24 V d.c. (W)	230 V a.c. (VA)	24 V d.c. (mA)	230 V a.c. (mA)								
	12,1	15	504	63	IP65 (with connector)	—	-25 ... +60 Media: +80 max	Connector DIN EN 175301-803, form A *2)	0,117	1	5	0200
	10,7	—	446	—	IP66	II 2 G Ex mb IIC T4 Gb II 2 D Ex mb IIIC T110°C Db	-20 ... +40	Cable length 3 m	0,4	2	6	0290
	—	12,4	—	54	IP66	II 2 G Ex mb IIC T4 Gb II 2 D Ex mb IIIC T110°C Db	-20 ... +40	Cable length 3 m	0,4	2	8	0291
	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	4230
	—	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	8	4231
	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	3726
	—	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	3727

Standard voltages ( $\pm 10\%$ ) 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

## Approvals

Model	Approvals ATEX	IECEX	FM
029x	KEMA 02 ATEX 1347 X	IECEX DEK 13.0014X	—
372x	—	—	CSA-LR 57643-6

Model	Approvals ATEX	IECEX	Datasheet
42xx	KEMA 98 ATEX 4452 X	IECEX KEM 09.0068X	7.1580

## Accessories

### Electrical connection

Cable gland Protection class Ex e (ATEX)						
Page 5						
For solenoid	Thread	Cable $\varnothing$ (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.

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

### 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: 000000423002400-04

(Coil: 4230; Voltage: 24V DC; Approval: TR-CU 012 )



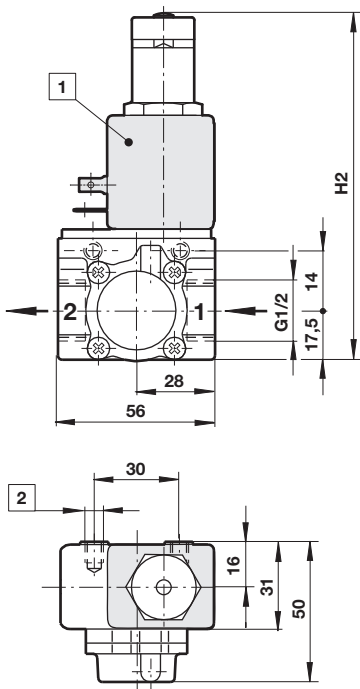
Further Connectors see Datasheet 7.1.507

### Drawings - Valve

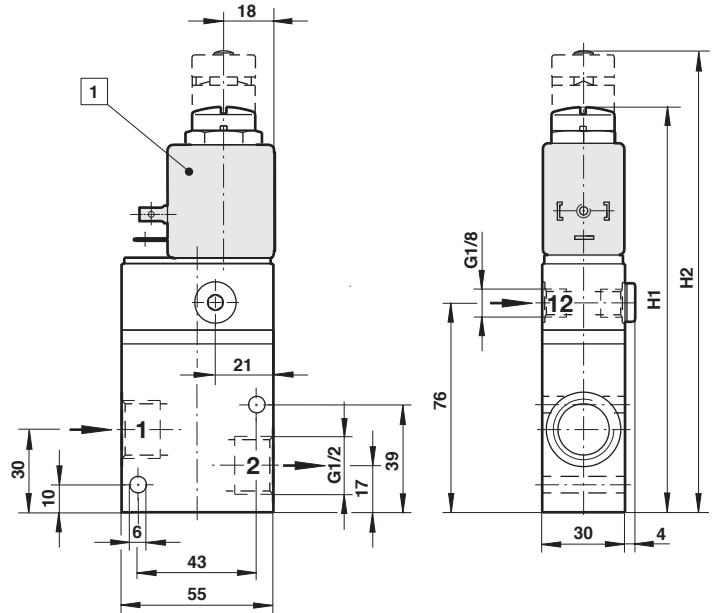
Dimensions in mm  
Projection/First angle



① Gewicht: 0,55 kg

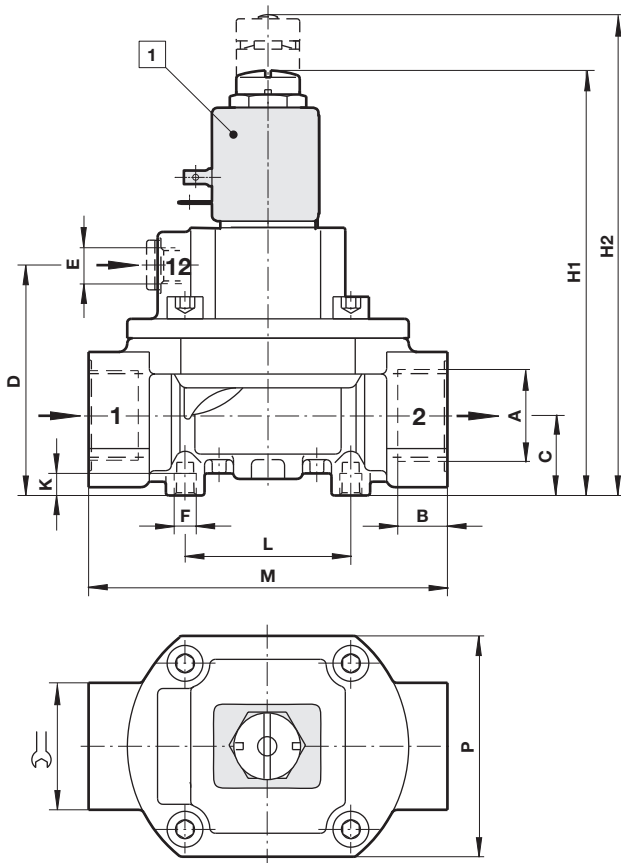


② Gewicht: 0,55 kg



① Solenoid rotate 4 x 90°  
② M6 x 7,5 deep

③

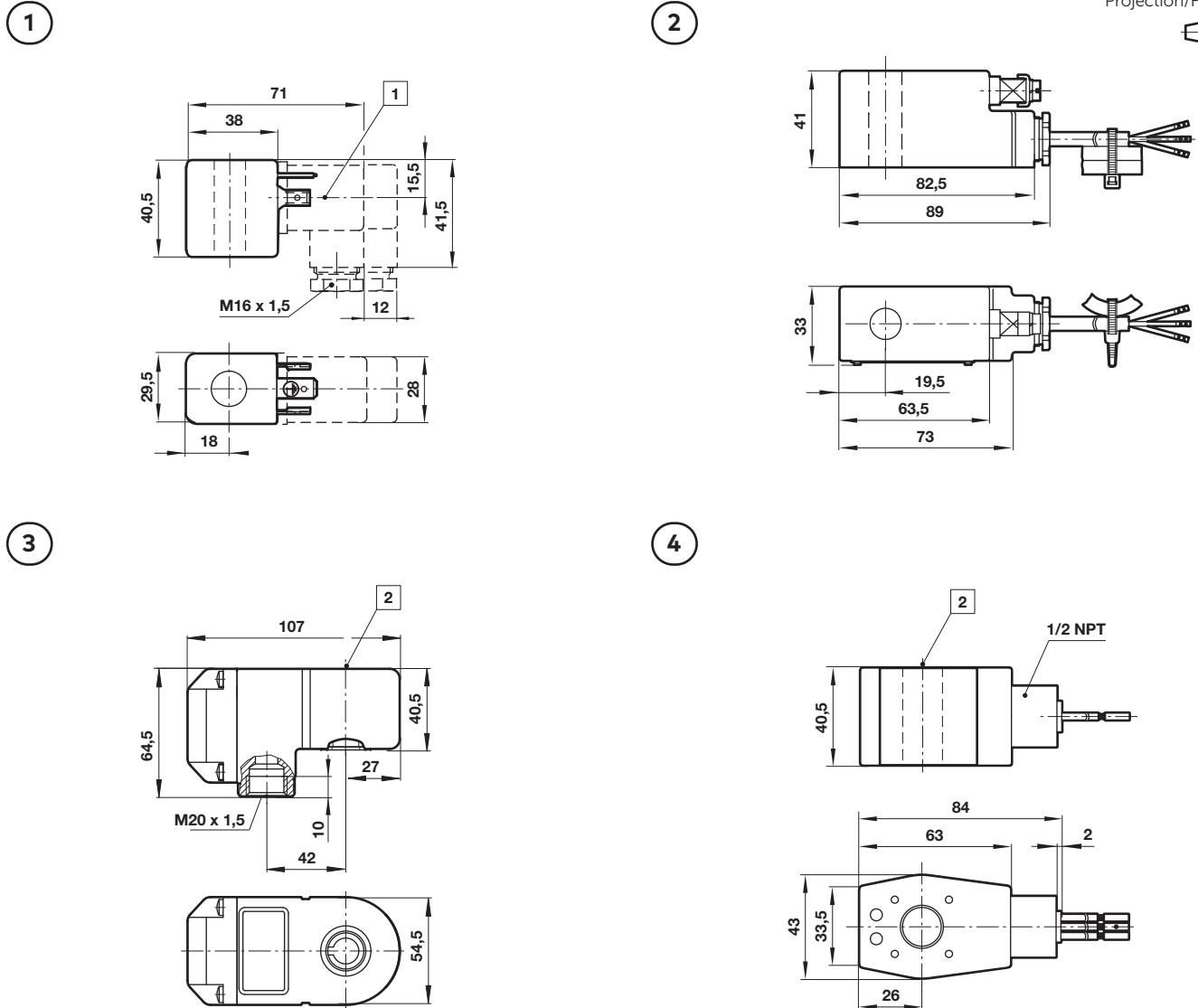


A	B	☞	Model
G3/4	20	46	703213
G3/4	20	46	703263
G1	18	46	703223
G1	18	46	703273

\*8) Without manual override  
\*9) With manual override

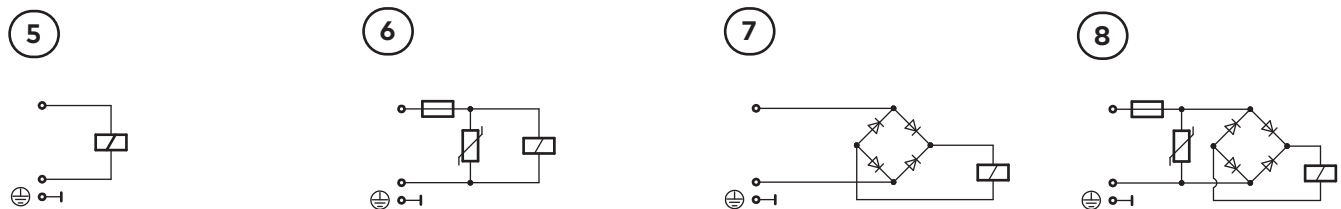
## Drawings - Solenoid

Dimensions in mm  
Projection/First angle



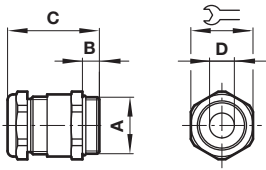
- 1 Connector can be indexed by 4x90°
- 2  $\varnothing 16$  (with spacer tube)


## Circuit diagrams



## Cable gland

Dimensions in mm  
Projection/First angle



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.