

Bosch Rexroth G16A4-1X/G3/4G1/4-J3-SO003 size 16 directional valve subplate

Manufacturer: Bosch Rexroth
Manufacturer part number / published order designation: R901439667
Published model: G16A4-1X/G3/4G1/4-J3-SO003

About this compilation

Prepared by Hydmaster from selected manufacturer documentation. Original technical pages follow without cropped drawings, rewritten data or altered units. This cover and index are Hydmaster editorial material, not a manufacturer-issued exact-execution datasheet.

Coverage: selected pages relevant to the identified size and configuration. Other options or neighbouring models retained on an original page apply only where explicitly identified.

Execution notes and conditions

Delivered base material, coating composition and seal material are not established by the ordering/dimension rows.

Hydraulic-fluid compatibility, cleanliness and overall assembly limits depend on the installed valve and other components.

No universal flow rating or general operating-temperature rating is inferred.

The overview/supplier designation is shortened; the complete model including SO003 is printed with the exact material number in the detailed manufacturer row. No new combination is generated.

Source-page index

Source page numbers below are physical pages of each complete original PDF. The original printed page labels and technical content remain unchanged. Compiled page numbers count this cover/index.

Source A: Bosch Rexroth Subplates Re45100 2019

Original pages	Compiled pages	Relevant content
1-4	2-5	Original manufacturer document identity and individual subplate scope; Published G-1X size, porting pattern and main-port count definitions; Actual main/control thread, port orientation, outer-design and corrosion option definitions; Special-version definitions including SO003 where selected; hydraulic-fluid and assembly operating qualifications
32	6	Exact material-number/full-model row and dimensional drawing for G16A4-1X/G3/4G1/4-J3-SO003; use only the selected row and actual mounting/port details
52	7	Manufacturer assignment of nominal-size A subplates to valve mounting interfaces; other listed valve families do not imply universal compatibility

Subplates

RE 45100

Edition: 2019-05

Replaces: 2018-10



H8056

- Size 4 ... 32
- Component series 1X

Features

The subplates are intended for the set-up of single valves and vertical stackings and are equipped with all ports. The delivery range includes sizes 4 ... 32 as a standard.

- Ready for connection
- Compact design
- Large number of variants
- Broad field of application
- Various frame sizes

Contents

Features	1
Ordering code	2, 3
Technical data	4
Compatibility with permitted hydraulic fluids	4
Dimensions	5 ... 49
Assignment of the valves according to size and porting pattern	50 ... 55
Subplates overview	56, 57

Ordering code

01	02	03	04	05	06	07	08	09	10	11
G				-	1X	/			-	

Device type

01	Subplate	G
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Size

02	NG4	04
	NG5	05
	NG6	06
	NG10	10
	NG16	16
	NG20	20
	NG25	25
	NG30	30
	NG32	32

Porting pattern

03	Directional valves with one tank port, flow control valves	A
	Isolator, directional, pressure and flow control valves	C
	Isolator, directional, pressure and flow control valves	D
	Pressure relief valves	E
	Flow control valves	G
	Rexroth-specific hole pattern	R
	ISO 4401-03-02-0-05 and NFPA T3.5.1 R2-2002 D03, with 4 mm locating pin bore	U
	Valves up to 630 bar	V

Number of main ports

04	2 main ports A, B / X, Y / P, T / P, A	2
	3 main ports P, A, T	3
	4 main ports P, A, B, T	4
05	Component series 10 ... 19 (10 ... 19: unchanged installation and connection dimensions)	1X

Order example:

G10A2-1X/G3/8G1/4-SLJ5-SO699

Other versions are only possible after consultation.

Ordering code

01	02	03	04	05			06		07		08	09	10	11	
G				-	1X	/				-				-	

Actuator ports P, A, B, T

06	Thread G1/4	G1/4
	Thread G3/8	G3/8
	Thread G3/4	G3/4
	Thread G1/2	G1/2
	Thread G1	G1
	Thread G1 1/4	G1 1/4
	Thread G1 1/2	G1 1/2
	Thread M14	M14
	Thread M18	M18
	Thread M22	M22
	Thread M27	M27
	Thread M33	M33
	Thread M48	M48
	Thread NPT 1/2	NPT 1/2
	Thread NPT 1	NPT 1
	Thread 7/8-12UNF	UNF7/8-12
	Thread 3/4-16UNF	UNF3/4-16
	Thread 9/16-18UNF	UNF9/16-18
	Thread 7/8-20UNF	UNF7/8-20
	Thread 7/16-20UNF	UNF7/16-20
	Thread 1 1/16-12UN	UN1 1/16-12
	Thread 1 5/16-12UN	UN1 5/16-12
	Thread 1 5/8-12 UN	UN1 5/8-12
	Thread 1 7/8-12 UN	UN1 7/8-12
	Flange ISO 6164 DN19	FL19
	Flange ISO 6164 DN32	FL32
	Flange ISO 6164 DN51	FL51

Control system ports X, Y, L

07	Thread G1/4	G1/4
	Thread G3/8	G3/8
	Thread G1/2	G1/2
	Thread M14	M14
	Thread M18	M18
	Thread 7/16-20UNF	UNF 20
	Thread 9/16-18UNF	UNF 18

Porting pattern

08	Rear ports	no code
	Lateral ports	S

Design (outer dimensions)

09	Standard size	no code
	Small design "mini"	M
	Large design "large"	L

Corrosion resistance

10	Standard	no code
	Improved corrosion protection (240 h in salt spray test according to DIN EN ISO 9227)	J3
	Maximum corrosion protection (720 h in salt spray test according to DIN EN ISO 9227)	J5

Ordering code

01	02	03	04	05	06	07	08	09	10	11
G				-	1X	/			-	

Special versions

11	With additional port L	SO003
	Special hole pattern with leakage oil connection on top for 5-4WE 10 -5X/...	SO331
	High-pressure valves 500 bar	SO699
	Special hole pattern without port X but with leakage oil connection such as standard hole pattern for 5-4 WE 10 ...-5X/...	SO771
	Name plate on the opposite side	SO001

Technical data

(for applications outside these values, please consult us!)

general	
Installation position	any (observe the valve details)
hydraulic	
Operating pressure	see details of the relevant subplate
Maximum admissible degree of contamination of the hydraulic fluid Cleanliness class according to ISO 4406 (c)	The cleanliness classes specified for the components must be adhered to in hydraulic systems. See data sheet of the valves to be installed.

Hydraulic fluid	Classification	Suitable sealing materials	Standards	Data sheet
Mineral oils	HL, HLP, HLPD, HVLP, HVLPD	NBR, FKM	DIN 51524	90220
Bio-degradable ¹⁾	▶ Insoluble in water	HETG	ISO 15380	90221
		HEES		
	▶ Soluble in water	HEPG	ISO 15380	
Flame-resistant	▶ Water-free	HFDU (glycol base)	ISO 12922	90222
		HFDU (ester base) ¹⁾		
	▶ Containing water ¹⁾	HFC (Fuchs Hydrotherm 46M, Petrofer Ultra Safe 620)	ISO 12922	90223



Important information on hydraulic fluids:

- ▶ For further information and data on the use of other hydraulic fluids, please refer to the data sheets above or contact us.
- ▶ There may be limitations regarding the technical valve data (temperature, pressure range, life cycle, maintenance intervals, etc.).
- ▶ The ignition temperature of the hydraulic fluid used must be 50 K higher than the maximum solenoid surface temperature.

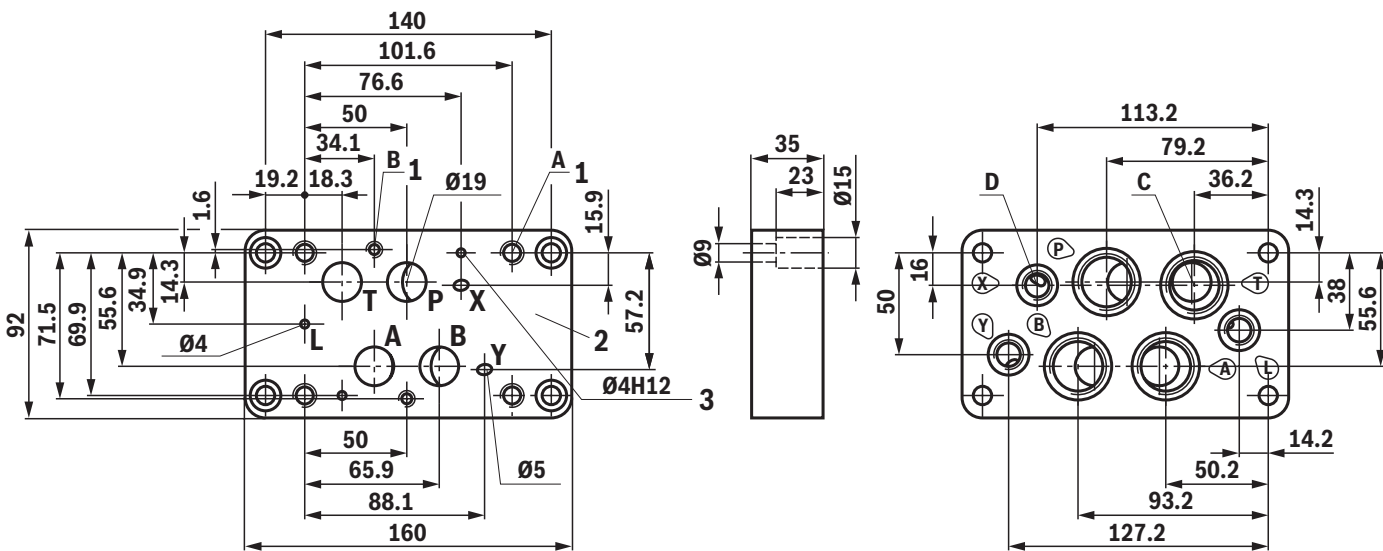
▶ Flame-resistant – containing water:

- Life cycle as compared to operation with mineral oil HL, HLP 30 ... 100%
- Maximum hydraulic fluid temperature 60 °C

¹⁾ Small amounts of dissolved zinc may get into the hydraulic system during use.

Uncoated subplates available on request.

Dimensions
(dimensions in mm)



- 1 Valve mounting thread
- 2 Valve contact surface
- 3 Bore for locating pin

Denomination	Material number	A	B	C	
				Thread	Recess Ø
G16A4-1X/G3/4G1/4-SO003	R900424410	M10; 19 deep	M6; 19 deep	G3/4	33
G16A4-1X/G3/4G1/4-J3-SO003	R901439667	M10; 19 deep	M6; 19 deep	G3/4	33
G16A4-1X/M27M14-SO003	R900424411	M10; 19 deep	M6; 19 deep	M27 x 2	33
G16A4-1X/M27M14-J3-SO003	R901439670	M10; 19 deep	M6; 19 deep	M27 x 2	33
G16A4-1X/UN1 1/16-12UNF20-SO003	R900455125	3/4UNC; 17 deep	1/4UNC; 17 deep	1 1/16-12UN	41

Denomination	D		Weight in kg	p _{max} in bar
	Thread	Recess Ø		
G16A4-1X/G3/4G1/4-SO003	G1/4	20	2.9	350
G16A4-1X/G3/4G1/4-J3-SO003	G1/4	20	2.9	350
G16A4-1X/M27M14-SO003	M14 x 1,5	20	2.9	350
G16A4-1X/M27M14-J3-SO003	M14 x 1,5	20	2.9	350
G16A4-1X/UN1 1/16-12UNF20-SO003	7/16-20UNF	21	2.9	350

Assignment of the valves according to size and porting pattern

Valve type	Data sheet	ISO / DIN / Rexroth-specific hole pattern	Denomination in the type code
4WRKE 10 ...3X/...	29075	ISO 4401-05-04-0-05 and NFPA T3.5.1 R2-D05	10A
4WRKE 16 ...3X/...	29075	ISO 4401-07-07-0-05 and NFPA T3.5.1 R2-D07	16A
4WRKE 25 ...3X/...	29075	ISO 4401-08-08-0-05 and NFPA T3.5.1 R2	25A
4WRKE 32 ...3X/...	29075	ISO 4401-10-09-0-05 and NFPA T3.5.1 R2-D10	32A
4WRDL 10 ...3X/...	29288	ISO 4401-05-04-0-05 and NFPA T3.5.1 R2-D05	10A
4WRDL 16 ...3X/...	29288	ISO 4401-07-07-0-05 and NFPA T3.5.1 R2-D07	16A
4WRDL 25 ...3X/...	29288	ISO 4401-08-08-0-05 and NFPA T3.5.1 R2	25A
4WRLE 25 ...E/W-3X/...	29089	ISO 4401-08-08-0-05 and NFPA T3.5.1 R2	25A
4WRLE 25 ...V-3X/...	29088	ISO 4401-08-08-0-05 and NFPA T3.5.1 R2	25A
4WRLE 32 ...E/W-3X/...	29089	ISO 4401-10-09-0-05 and NFPA T3.5.1 R2-D10	32A
4WRLE 32 ...V-3X/...	29088	ISO 4401-10-09-0-05 and NFPA T3.5.1 R2-D10	32A
4WRLE 10 ...E/W-3X/...	29089	ISO 4401-05-04-0-05 and NFPA T3.5.1 R2-D05	10A
4WRLE 10 ...V-3X/...	29088	ISO 4401-05-04-0-05 and NFPA T3.5.1 R2-D05	10A
4WRLE 16 ...E/W-3X/...	29089	ISO 4401-07-07-0-05 and NFPA T3.5.1 R2-D07	16A
4WRLE 16 ...V-3X/...	29088	ISO 4401-07-07-0-05 and NFPA T3.5.1 R2-D07	16A
4WRPDH 10 ...-2X/...	29391	ISO 4401-05-04-0-05 and NFPA T3.5.1 R2-D05	10A
4WRPDH 6 ...-2X/...	29391	ISO 4401-03-02-0-05 and NFPA T3.5.1 R2-2002 D03	06A (06U)
4WRPE 10 ...-2X/...	29025	ISO 4401-05-04-0-05 and NFPA T3.5.1 R2-D05	10A
4WRPE 10 ...EA-2X/...	29024	ISO 4401-05-04-0-05 and NFPA T3.5.1 R2-D05	10A
4WRPE 6 ...-2X/...	29025	ISO 4401-03-02-0-05 and NFPA T3.5.1 R2-2002 D03	06A (06U)
4WRPE 6 ...EA-2X/...	29024	ISO 4401-03-02-0-05 and NFPA T3.5.1 R2-2002 D03	06A (06U)
4WRPEH 10 ...-2X/...	29037	ISO 4401-05-04-0-05 and NFPA T3.5.1 R2-D05	10A
4WRPEH 6 ...-3X/...	29121	ISO 4401-03-02-0-05 and NFPA T3.5.1 R2-2002 D03	06A (06U)
4WRPNH 10 ...-2X/...	29191	ISO 4401-05-04-0-05 and NFPA T3.5.1 R2-D05	10A
4WRPNH 6 ...-2X/...	29191	ISO 4401-03-02-0-05 and NFPA T3.5.1 R2-2002 D03	06A (06U)
4WRREH 6 ...-1X/...	29041	ISO 4401-03-02-0-05 and NFPA T3.5.1 R2-2002 D03	06A (06U)
4WRSE 10 ...-3X/...	29067	ISO 4401-05-04-0-05 and NFPA T3.5.1 R2-D05	10A
4WRSE 6 ...-3X/...	29067	ISO 4401-03-02-0-05 and NFPA T3.5.1 R2-2002 D03	06A (06U)
4WRSEH 10 ...-3X/...	29069	ISO 4401-05-04-0-05 and NFPA T3.5.1 R2-D05	10A
4WRSEH 6 ...-3X/...	29069	ISO 4401-03-02-0-05 and NFPA T3.5.1 R2-2002 D03	06A (06U)
4WRTE 10 ...-4X/...	29083	ISO 4401-05-04-0-05 and NFPA T3.5.1 R2-D05	10A
4WRTE 16 ...-4X/...	29083	ISO 4401-07-07-0-05 and NFPA T3.5.1 R2-D07	16A
4WRTE 25 ...-4X/...	29083	ISO 4401-08-08-0-05 and NFPA T3.5.1 R2	25A
4WRTE 32 ...-4X/...	29083	ISO 4401-10-09-0-05 and NFPA T3.5.1 R2-D10	32A
4WRVE 10 ...-2X/...	29077	ISO 4401-05-04-0-05 and NFPA T3.5.1 R2-D05	10A
4WRVE 16 ...-2X/...	29077	ISO 4401-07-07-0-05 and NFPA T3.5.1 R2-D07	16A
4WRVE 25 ...-2X/...	29077	ISO 4401-08-08-0-05 and NFPA T3.5.1 R2	25A
4WRZ(E) 10 ...-7X/...	29115	ISO 4401-05-04-0-05 and NFPA T3.5.1 R2-D05	10A
4WRZ(E) 16 ...-7X/...	29115	ISO 4401-07-07-0-05 and NFPA T3.5.1 R2-D07	16A
4WRZ(E) 25 ...-7X/...	29115	ISO 4401-08-08-0-05 and NFPA T3.5.1 R2	25A
4WRZ(E) 32 ...-7X/...	29115	ISO 4401-10-09-0-05 and NFPA T3.5.1 R2-D10	32A
4WRZ(E)(M) 10 ...-7X/...	29117	ISO 4401-05-04-0-05 and NFPA T3.5.1 R2-D05	10A
4WRZ(E)(M) 16 ...-7X/...	29117	ISO 4401-07-07-0-05 and NFPA T3.5.1 R2-D07	16A
4WRZ(E)(M) 25 ...-7X/...	29117	ISO 4401-08-08-0-05 and NFPA T3.5.1 R2	25A
4WS(E)2E. 10 -5X/...	29583	ISO 4401-05-04-0-05 and NFPA T3.5.1 R2-D05	10A
4WS(E)2E. 16 -2X/...	29591	ISO 4401-07-07-0-05 and NFPA T3.5.1 R2-D07	16A
4WS(E)2EM 6 -2X/...	29564	ISO 4401-03-02-0-05 and NFPA T3.5.1 R2-2002 D03	06A (06U)
4WSE3E 25 -3X/...	29621	ISO 4401-08-08-0-05 and NFPA T3.5.1 R2	25A
4WSE3E 32 -5X/...	29622	ISO 4401-10-09-0-05 and NFPA T3.5.1 R2-D10	32A
4WSE3E. 16 -2X/...	29620	ISO 4401-07-07-0-05 and NFPA T3.5.1 R2-D07	16A
5-3WE 10 ...5X/...	23352	ISO 4401-05-04-0-05 and NFPA T3.5.1 R2-D05	10A