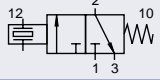
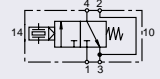

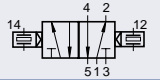
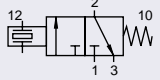


Directional Valves with NAMUR Connections

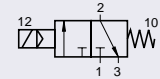
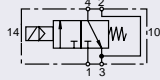
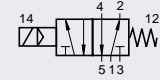
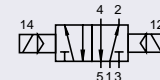
Overview

Intrinsically safe 3/2, 4/2 and 5/2 Way Valves with IP 65 and NAMUR Connection – Series S29

Actuation	Symbol	Order Instructions Type	Order No.	Page
Electrical, by permanent signal		S29 385RF-1/4-.-NAMUR	PS 13623-..6A	18
Electrical, by permanent signal		S29 485RF-1/4-.-NAMUR	PS 13621-..6A	18
Electrical, by permanent signal		S29 585RF-1/4-.-NAMUR	PS 13619-..6A	18
Electrical, by impulse		S29 585-1/4-.-NAMUR	PS 13620-..6A	21
Pilot valve as spare part (electrical, by permanent signal)		P29 381 RF-NG-C.	PS 10041-..1A	-

Version	Nominal voltage	Type key	Key code
Intrinsically safe II 2G EEx ia IIC T4/T5/T6	6 – 9 V DC	M	54
	7 – 16 V DC	N	51
	12 – 24 V DC	L	55
	24 – 30 V DC	E	21

3/2, 4/2 and 5/2 Way Valves with EEx m-Solenoids and NAMUR Connection – Series S9

Actuation	Symbol	Order Instructions Type	Order No.	Page
Electrical, by permanent signal		S9 381RF-1/4-NG-SO-..	PD 33854-..33	20
Electrical, by permanent signal		S9 481RF-1/4-SO-..	PD 40996-..33	20
Electrical, by permanent signal		S9 581RF-1/8-SO-.. S9 581RF-1/4-SO-..	PD 34143-..33 PD 34985-..33	19 20
Electrical, by impulse		S9 581-1/8-SO-.. S9 581-1/4-SO-..	PD 34984-..33 PD 34986-..33	19 20

Solenoid version	Nominal voltage	Key code
Casting cover EEx m II T5	24V =	48
	220V/50(60) Hz	98
	other voltages on request	

Characteristics

Series S29 – G1/4 and S9 – G1/8 -1/4

Characteristics	Symbol	Unit	Series S29, S9 G1/8	G1/4
Actuation			Electrical piloted	Electrical piloted
General Features				
Type			Spool valve	Spool valve
Mounting			2 screws M5	2 screws M6
Tube connection			Thread and NAMUR connection	Thread and NAMUR connection
Thread			G1/8 – 7.4 deep	G1/4 – 11 deep
Weight		kg	See page 18	see page 19, 20
Installation			In any position	in any position
Ambient temperature range	$\vartheta_{\min. / \max.}$	°C	-10 to +60	Note: When using below freezing point please contact our technical department
Medium temperature range	$\vartheta_{\min. / \max.}$	°C	-10 to +60	
Medium			Filtered compressed air (30 μ)	
Lubrication			With or without oil mist lubrication ⁽¹⁾ (we recommend the use of mineral oil type VG 32 to ISO 3448)	
Pneumatic Characteristics				
Nominal pressure	$p_{\min. / \max.}$	bar	6	6
Operating pressure range				
– Permanent signal range	$p_{\min. / \max.}$	bar	2–8 (Series S29), 2–10 (Series S9)	2–8 (Series S29), 2–10 (Series S9)
– Impulse range	$p_{\min. / \max.}$	bar	1.5–8 (Series S29), 1.5–10 (Series S9)	1.5–8 (Series S29), 1.5–10 (Series S9) ⁽²⁾
Nominal flow	Q_N	l/min	500 (450 at 3/2-way valve)	1300 ⁽³⁾
Actuation				
Actuation pressure range				
– Permanent signal range	$p_{\min. / \max.}$	bar	2–8 (Series S29), 2–10 (Series S9)	2–8 (Series S29), 2–10 (Series S9)
– Impulse range	$p_{\min. / \max.}$	bar	1.5–8 (Series S29), 1.5–10 (Series S9)	1.5–8 (Series S29), 1.5–10 (Series S9) ⁽²⁾
Electrical piloted			●	●

Piezo Electrical Actuation ⁽⁴⁾				
Conformity			EU type test certificate DMT 01 ATEX E 025 X, DMT 01 ATEX E 026 X	
Category			II 2G EEx ia IIC T4/T5/T6	
HOERBIGER-Code			M	N L E
Voltage			DC	
Switching voltage	U	V/DC	6 – 9	7 – 16 12 – 24 24-30
Initial current	I	mA	–	– 1,6
Permanent current	I	mA	1 – 2	2 – 5.5 1.5 – 3.5 0.24 – 0.3
Electrical protection			IP65 / IP54	
Connection			Plug to DIN 43650A	
Safety data according to EU type test certificate				
Voltage	U_i	V	9	16 24 30
Current	I_i	mA	–	– 150
Outer capacity	C_i	nF	12	12 12 12
Outer inductivity	L_i	nH	120	120 120 120

Electrical, EEx m-solenoids				
Class of protection			EEx m	
Voltage			AC	DC
Nominal voltage	U_n	V	220	24 other voltages on request
Initial power consumption		VA (W)	5.0	5.1
Continuous consumption		VA (W)	5.0	5.1
Electrical protection			IP 65 to DIN 40050 (with plug)	
Insulating material			E to VDE 0580	
Connection			Cable 1200 mm long	

⁽¹⁾ at piezo electrical actuated valve: dried or filtered air (30 μ), nor or minimal oil mist lubrication (max.30mg/m³)

⁽²⁾ at differential piston version 2.5 – 8 bar (Series S29), 2.5–10 (Series S9)

⁽³⁾ at version middle position exhausted 1000 l/min

⁽⁴⁾ not suited as safety valve with 100% ED

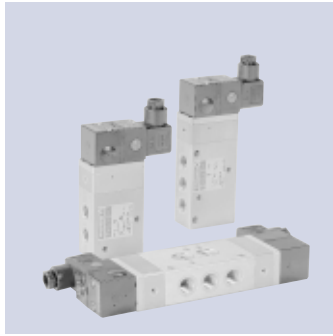
Directional Valves with NAMUR Connections

Series S29 – intrinsically safe, piezo electrical actuated

3/2, 4/2 and 5/2 Way Valve Series S29 G1/4

with NAMUR connections

Actuation:
– Piezo electric actuated



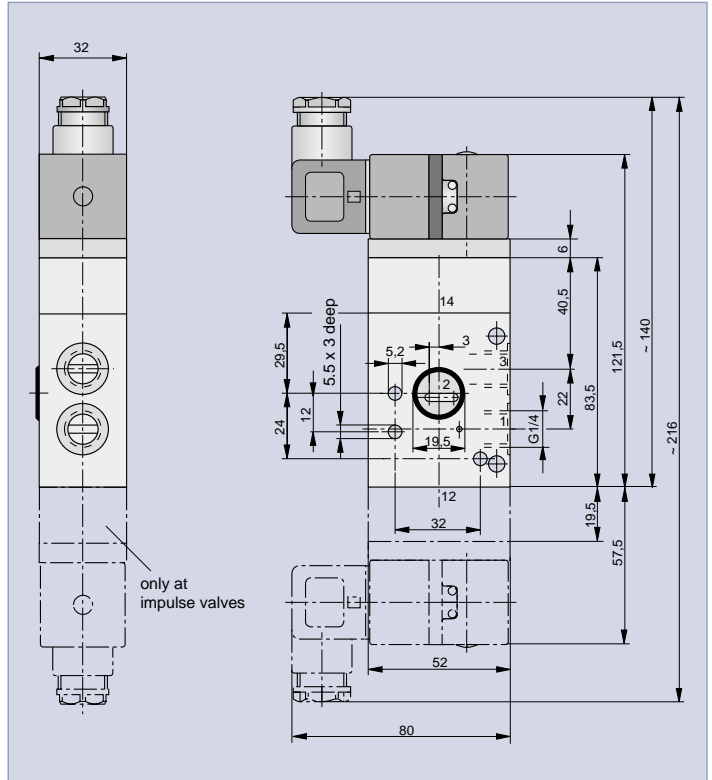
The delivery includes:

- 1 Valve
- 2 Mounting screws
- 1 Coding pin
- 2 O-rings

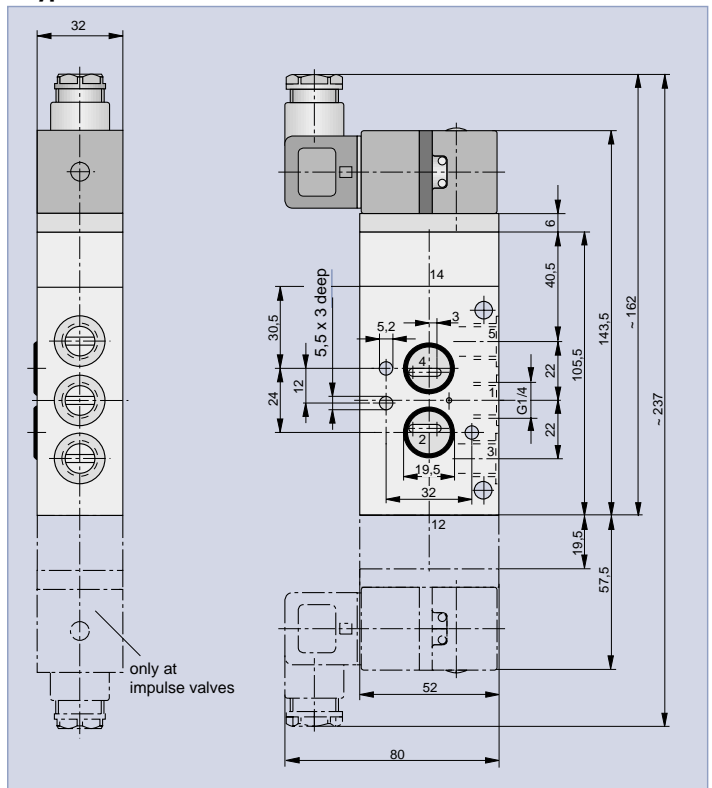
Weight (mass) kg

Description	Type	Weight (mass)
Electrical, by perm. signal	S29 385RF-1/4-.NAMUR	0.460
Electrical, by perm. signal	S29 485RF-1/4-.NAMUR	0.550
Electrical, by perm. signal	S29 585RF-1/4-.NAMUR	0.550
Electrical, by impulse	S29 585-1/4-.NAMUR	0.650

3/2 Way valve Type: S29 385RF-1/4-. Namur



4/2 and 5/2 Way Valve Type: S29 4(5)85RF-1/4-. Namur, S29 585-1/4-. Namur



Order Instructions see page 16, Characteristics see page 17