

Positioners

SIPART PS2

Selection and Ordering data

SIPART PS2



Selection and ordering data	Order No.	Order code	Selection and ordering data	Order No.	Order code
SIPART PS2 electropneumatic positioner, without Ex protection, with "Ex i" and with "Ex n"	6 DR 5	777 - 0 77777 - 77A7 777	SIPART PS2 electropneumatic positioner, without Ex protection, with "Ex i" and with "Ex n"	6 DR 5	777 - 0 77777 - 77A7 777
Version			Limit monitor		
2-wire (4 to 20 mA)			Installed, incl. 2nd cable gland		
• <u>Without</u> HART } 0			Without } 0		
• <u>With</u> HART, <u>not</u> explosion-protected } 1			Alarm module; electronic (6DR4004-.A)		1
2-, 3-, 4-wire (0/4 to 20 mA)			SIA module; slot-type initiators (6DR4004-.G)		2
• <u>With</u> HART, explosion-protected } 2			Limit value contact module (mechanical switching contacts (6DR4004-.K)		3
• <u>Without</u> HART, <u>not</u> explosion-protected } 3					
PROFIBUS PA connection } 5			Option modules		
FOUNDATION Fieldbus connection } 6			Installed, incl. 2nd cable gland		
For actuator			Without } 0		
Single-action } 1			ly module for position feedback signal (4 ... 20 mA) (6DR4004-.J)		1
Double-action } 2			EMC filter module for external position sensor in the SIPART PS2 enclosure (C73451-A430-D23), NCS sensor 6DR4004-.NN.0 and external position sensing with non-Siemens potentiometer		2
Enclosure			ly module and EMC filter module for external position sensor		3
Makrolon } 0			Customer-specific design		
Aluminum; only single-action } 1 1			Without } 0		
Stainless steel (without window) } 2			Brief instructions		
Explosion protection			German/English } A		
Without } N			French/Spanish/Italian } B		
In type of protection (ATEX/IECEX/FM/CSA)		E	Mounted pressure gauge block		
• intrinsic safety "Ex ia", Zone 1			Without } 0		
In type of protection (ATEX/IECEX) ¹⁾		D	Gauge made of plastic		
• non-sparking "Ex nA", zone 2			Block made of aluminum, single-acting G $\frac{1}{4}$, scaled in MPa, bar, psi		1
• energy-limited "Ex nL", zone 2			Block made of aluminum, double-acting G $\frac{1}{4}$, scaled in MPa, bar, psi		2
• dust protection via enclosure "Ex tD", zone 22			Block made of aluminum, single-acting $\frac{1}{4}$ -18 NPT, scaled in MPa, bar, psi		3
In type of protection (ATEX/IECEX/FM) ²⁾		F	Block made of aluminum, single-acting $\frac{1}{4}$ -18 NPT, scaled in MPa, bar, psi		4
• intrinsic safety "Ex ia", zone 1			Gauge made of steel		
• intrinsic safety "Ex ic", zone 2			block made of aluminium, single-action G $\frac{1}{4}$, scaled in MPa, bar, psi		9 R 1 A
• non-sparking "Ex nA", zone 2			Block made of aluminium, double-action G $\frac{1}{4}$, scaled in MPa, bar, psi		9 R 2 A
• energy-limited "Ex nL", zone 2			Block made of aluminium, single-action $\frac{1}{4}$ -18 NPT, scaled in MPa, bar, psi		9 R 1 B
In type of protection (ATEX/IECEX/FM) ²⁾		G	Block made of aluminium, double-action $\frac{1}{4}$ -18 NPT, scaled in MPa, bar, psi		9 R 2 B
• non-sparking "Ex nA", zone 2			Gauge made of stainless steel 316		
• energy-limited "Ex nL", zone 2			Block made of stainless steel 316, single-action G $\frac{1}{4}$, scaled in MPa, bar, psi		9 R 1 C
In type of protection (ATEX/IECEX) ¹⁾		K	Block made of stainless steel 316, double-action G $\frac{1}{4}$, scaled in MPa, bar, psi		9 R 2 C
• intrinsic safety "Ex ia", zone 1			Block made of stainless steel 316, single-action $\frac{1}{4}$ -18 NPT, scaled in MPa, bar, psi		9 R 1 D
• intrinsic safety "Ex ic", zone 2			Block made of stainless steel 316, double-action $\frac{1}{4}$ -18 NPT, scaled in MPa, bar, psi		9 R 2 D
• non-sparking "Ex nA", zone 2					
• energy-limited "Ex nL", zone 2					
• dust protection via enclosure "Ex tD", zone 22					
Connection thread electrical/pneumatic					
With cable gland M20x1.5/G $\frac{1}{4}$ } G					
With cable gland $\frac{1}{2}$ -14 NPT / $\frac{1}{4}$ -18 NPT } N					
With cable gland M20x1.5/ $\frac{1}{4}$ -18 NPT } M					
With cable gland $\frac{1}{2}$ -14 NPT / G $\frac{1}{4}$ } P					
With plug M12 / G $\frac{1}{4}$ } R					
With plug M12 / $\frac{1}{4}$ -18 NPT } S					

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SIPART PS2 electropneumatic positioner, without Ex protection, with "Ex i" and with "Ex n"	6 DR 5	
<i>Further designs</i>		Order code
Add "-Z" to order no. and specify order code.		
Pneumatic terminal block made of stainless steel 316 For device versions in Makrolon enclosure	K18	
Version with stainless steel sound absorbers Standard with stainless steel enclosure	A40	
Measuring point number (TAG No.) Max. 8 characters for HART, max. 32 characters for PROFIBUS PA, FOUNDATION Fieldbus and 4 ... 20 mA, specify in plain text: Y17:	Y17³⁾	
Measuring point description Max. 16 characters for HART, max. 32 characters for PROFIBUS PA, FOUNDATION Fieldbus and 4 ... 20 mA, specify in plain text: Y15:	Y15³⁾	
Measuring point text Max. 24 characters for HART, max. 32 characters for PROFIBUS PA, FOUNDATION Fieldbus and 4 ... 20 mA, specify in plain text: Y16:	Y16³⁾	
TAG plate made of stainless steel, 3-line Text line 1: Plain text from Y17 Text line 2: Plain text from Y15 Text line 3: Plain text from Y16	Y20³⁾	
Preset bus address Specify in plain text: Y25:	Y25³⁾	

} Available ex stock (select combinations)

- 1) Enclosure: aluminum or stainless steel, each without inspection window in the cover
- 2) Enclosure: aluminum or Makrolon, each with inspection window in the cover Max. impact energy 1 Joule for enclosure with inspection window 6DR5..0 und 6DR5..1.
- 3) Only for Makrolon enclosure, for other enclosures on request.

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SIPART PS2 electropneumatic positioner, Ex d explosion protection, aluminum enclosure, without cable gland	6 DR 5	775 - 0E 777 - 77A 7 777
Version		
2-wire (4 to 20 mA)		
• <u>Without</u> HART	} 0	
• <u>With</u> HART	} 1	
2-, 3-, 4-wire (0/4 to 20 mA)		
• <u>With</u> HART	} 2	
• <u>Without</u> HART	} 3	
PROFIBUS PA connection	} 5	
FOUNDATION Fieldbus connection	} 6	
For actuator		
Single-action	} 1	
Double-action	} 2	
Connection thread electrical/pneumatic		
M20 x 1.5 / G¼	} G	
½-14 NPT / ¼-18 NPT	} N	
M20 x 1.5 / ¼-18 NPT	} M	
½-14 NPT / G¼	} P	
M25x1.5 / G¼	} Q	
Limit monitor		
Built-in		
Without	} 0	
Alarm module; electronic (6DR4004-8A)	} 1	
Option modules		
Built-in		
Without	} 0	
ly module for position feedback signal (4 ... 20 mA) (6DR4004-8J)	} 1	
Customer-specific design		
Without	} 0	
Brief instructions		
German/English	} A	
French/Spanish/Italian	} B	

Selection and ordering data	Order No.	Order code
SIPART PS2 electropneumatic positioner, Ex d explosion protection, aluminum enclosure, without cable gland	6 DR 5	775 - 0E 777 - 77A 7 777
Mounted pressure gauge block		
Without		} 0
Gauge made of plastic, block made of aluminium, single-action G¼, scaled in MPa and bar		} 1
Gauge made of plastic, block made of aluminium, double-action G¼, scaled in MPa and bar		} 2
Gauge made of plastic, block made of aluminium, single-action ¼-18 NPT, scaled in MPa and psi		} 3
Gauge made of plastic, block made of aluminium, double-action ¼-18 NPT, scaled in MPa and psi		} 4
<u>Gauge made of steel</u>		
block made of aluminium, single-action G¼, scaled in MPa, bar, psi		} 9 R 1 A
Block made of aluminium, double-action G¼, scaled in MPa, bar, psi		} 9 R 2 A
Block made of aluminium, single-action ¼-18 NPT, scaled in MPa, bar, psi		} 9 R 1 B
Block made of aluminium, double-action ¼-18 NPT, scaled in MPa, bar, psi		} 9 R 2 B
<u>Gauge made of stainless steel 316</u>		
Block made of stainless steel 316, single-action G¼, scaled in MPa, bar, psi		} 9 R 1 C
Block made of stainless steel 316, double-action G¼, scaled in MPa, bar, psi		} 9 R 2 C
Block made of stainless steel 316, single-action ¼-18 NPT, scaled in MPa, bar, psi		} 9 R 1 D
Block made of stainless steel 316, double-action ¼-18 NPT, scaled in MPa, bar, psi		} 9 R 2 D
Further designs	Order code	
Add "-Z" to order no. and specify order code.		
Measuring point number (TAG No.)	Y17 ¹⁾	
Max. 8 characters for HART, max. 32 characters for PROFIBUS PA and FOUNDATION Fieldbus, specify in plain text: Y17:		
Measuring point description	Y15 ¹⁾	
Max. 16 characters for HART, max. 32 characters for PROFIBUS PA and FOUNDATION Fieldbus, specify in plain text: Y15:		
Measuring point text	Y16 ¹⁾	
Max. 24 characters for HART, max. 32 characters for PROFIBUS PA and FOUNDATION Fieldbus, specify in plain text: Y16:		
TAG plate made of stainless steel, 3-line	A20 ¹⁾	
Text line 1: Plain text from Y17 Text line 2: Plain text from Y15 Text line 3: Plain text from Y16		
Preset bus address	Y25 ¹⁾	
Specify in plain text: Y25: only for 6DR55.. and 6DR56..)		

} Available ex stock (select combinations)

1) On request.

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Accessories

Selection and ordering data	Order No.
Accessories	
ly module for position feedback signal (4 ... 20 mA)	
• Without explosion protection	} 6DR4004-8J
• With explosion protection CENELEC/ATEX	} 6DR4004-6J
• With explosion protection FM/CSA	6DR4004-7J
Alarm unit for 3 alarm outputs and 1 binary input (functionality: 2 limit monitors, 1 fault alarm, 1 binary input)	
• Without explosion protection	} 6DR4004-8A
• With explosion protection CENELEC/ATEX	} 6DR4004-6A
• With explosion protection FM/CSA	6DR4004-7A
SIA module (slot-type initiator alarm unit, not for Ex d version)	
• Without explosion protection	} 6DR4004-8G
• With CENELEC/ATEX and FM/CSA explosion protection	} 6DR4004-6G
Limit value contact module (with mechanical ground contacts, not for Ex d version)	
• Without explosion protection	} 6DR4004-8K
• With explosion protection	} 6DR4004-6K
EMC filter module for connection of external position sensor (10 kΩ) or NCS sensor (not for Ex d version)	} C73451-A430-D23

Selection and ordering data	Order No.
Accessories	
NCS sensor for non-contacting detection of position (not for Ex d version), cable length 6 m (19.68 ft)	6DR4004-7NN70
Non explosion-proof	8
Explosion protection, Ex i	6
For part-turn actuators, mounting using mounting console (separate ordering item, see accessories)	1
For linear actuators up to 14 mm (0.55 inch), mounting using actuator-specific mounting solution	2
For linear actuators > 14 mm (0.55 inch), to 130 mm (5.12 inch), mounting using mounting kit for NAMUR linear actuators (separate ordering item, see accessories)	3
The EMC filter module is additionally required for the controller unit (separate ordering item, see below)	

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Accessories

Selection and ordering data	Order No.
External position detection system (with explosion protection to CENELEC/ATEX, Ex i) for separate mounting of position sensor and controller unit (not for Ex d version), comprising SIPART PS2 Makrolon enclosure with integral potentiometer and sliding clutch (without electronics and valve block)	C73451-A430-D78
The EMC filter module is additionally required for the controller unit. (separate ordering item, see above).	
Gauge block with	
2 gauges made of plastic, block made of aluminium, single-action G $\frac{1}{4}$, scaled in MPa and bar	6DR4004-1M
3 gauges made of plastic, block made of aluminium, double-action G $\frac{1}{4}$, scaled in MPa and bar	6DR4004-2M
2 gauges made of plastic, block made of aluminium, single-action G $\frac{1}{4}$ -18 NPT, scaled in MPa and psi	6DR4004-1MN
3 gauges made of plastic, block made of aluminium, double-action G $\frac{1}{4}$ -18 NPT, scaled in MPa and psi	6DR4004-2MN
2 gauges made of steel Block made of aluminum, single-action G $\frac{1}{4}$, scaled in MPa, bar, psi	6DR4004-1P
3 gauges made of steel Block made of aluminum, double-action G $\frac{1}{4}$, scaled in MPa, bar, psi	6DR4004-2P
2 gauges made of steel Block made of aluminum, single-action $\frac{1}{4}$ -18 NPT, scaled in MPa, bar, psi	6DR4004-1PN
3 gauges made of steel Block made of aluminum, double-action $\frac{1}{4}$ -18 NPT, scaled in MPa, bar, psi	6DR4004-2PN
2 gauges made of stainless steel 316 Block made of stainless steel 316, single-action G $\frac{1}{4}$, scaled in MPa, bar, psi	6DR4004-1Q
3 gauges made of stainless steel 316 Block made of stainless steel 316, double-action G $\frac{1}{4}$, scaled in MPa, bar, psi	6DR4004-2Q
2 gauges made of stainless steel 316 Block made of stainless steel 316, single-action $\frac{1}{4}$ -18 NPT, scaled in MPa, bar, psi	6DR4004-1QN
3 gauges made of stainless steel 316 Block made of stainless steel 316, double-action $\frac{1}{4}$ -18 NPT, scaled in MP, bar, psi	6DR4004-2QN
Pneumatic terminal block made of stainless steel 316	
to replace the pneumatic terminal block made of aluminium for SIPART PS2 with Makrolon enclosure	
Single-action with G $\frac{1}{4}$	} 6DR4004-1R
Double-action with G $\frac{1}{4}$	} 6DR4004-2R
Single-action with $\frac{1}{4}$ -18 NPT	} 6DR4004-1RN
Double-action with $\frac{1}{4}$ -18 NPT	} 6DR4004-2RN
Mounting kit for NAMUR part-turn actuators	
(VDI/VE 3845, with plastic coupling wheel, without mounting console)	} C) 6DR4004-8D
(VDI/VE 3845, with stainless steel coupling, without mounting console)	} TGX:16300-1556
The following mounting consoles can be used with the NAMUR part-turn actuator mounting kit 6DR4004-8D.	
Size W x L x H (H = height of shaft butt)	
• 30 x 80 x 20 mm	} C) TGX:16152-105
• 30 x 80 x 30 mm	} C) TGX:16300-147
• 30 x 130 x 30 mm	} C) TGX:16300-149

Mounting kit for other part-turn actuators

The following mounting consoles can be used together with the NAMUR part-turn actuator mounting kit 6DR4004-8D.

- SPX (DEZURIK) Power Rac, sizes R1, R1A, R2 and R2A } C) **TGX:16152-328**
- Masoneilan Camflex II } C) **TGX:16152-350**
- Fisher 1051/1052/1061, sizes 30, 40, 60 to 70 } C) **TGX:16152-364**
- Fisher 1051/1052, size 33 } C) **TGX:16152-348**

Mounting kit for NAMUR linear actuators

- NAMUR linear actuator mounting kit with short lever (2 ... 35 mm (0.08 ... 1.38 inch)) } **6DR4004-8V**
- Short lever for travels from 35 ... 130 mm (1.38 ... 5.12 inch) } **6DR4004-8L**
- Reduced mounting kit for linear actuator (like 6DR4004-8V but without fixing angle and U-bolt), with short lever with up to 35 mm travel (1.38 inch) } **6DR4004-8VK**
- Reduced mounting kit for linear actuator (like 6DR4004-8V but without fixing angle and U-bolt), with long lever with > 35 mm travel (1.38 inch) } **6DR4004-8VL**
- Roll and disk made of stainless steel 316 for replacement of the Teflon roll and aluminum disk in the 6DR4004-8, -8VK and -8VL mounting kits for NAMUR linear actuators } **6DR4004-3N**
- Two terminal blocks made of stainless steel 316 for replacement of the aluminum terminal blocks in the 6DR4004-8V, -8VK and -8VL mounting kits for NAMUR linear actuators } **6DR4004-3M**

Mounting kit for other linear actuators

- Retrofitting kit for Moore series 72 and 750 valve positioners } C) **TGX:16152-117**
- Masoneilan type 87/88 } C) **TGX:16152-620**
- Fisher type 657/667, size 30 to 80 } C) **TGX:16152-110**
- Samson actuator type 3277 (yoke dimension (H5) = 101 mm² (integrated connection without tube), not for Ex d) } C) **6DR4004-8S**

Connection block, for safety solenoid valve with extended mounting flange to NAMUR

- For mounting to IEC 534-6 } **6DR4004-1B**
- For SAMSON actuator (integrated mounting) see above } **6DR4004-1C¹⁾**

Pipe mounting

- Mounting bracket for pipe mounting of the SIPART PS2 positioner (e. g. when using the NCS sensor) } C) **TGX:16152-336**

Additional actuator components can be found at Tubi Valves.

Customer-specific mounting kits available on request.

Documentation (see notes below)

Operating Instructions

- SIPART PS2 HART German **A5E00074630**
- SIPART PS2 HART English **A5E00074631**
- SIPART PS2 PROFIBUS PA German **A5E00127924**
- SIPART PS2 PROFIBUS PA English **A5E00127926**
- SIPART PS2 FOUNDATION Fieldbus German **A5E00214568**
- SIPART PS2 FOUNDATION Fieldbus English **A5E00214569**

SIPART PS2 Compact Instruction Manual

- English, French, German, Spanish, Italian, Dutch **A5E03436620**
- English, Estonian, Latvian, Lithuanian, Polish, Romanian **A5E03436655**
- English, Bulgarian, Czech, Finnish, Slovakian, Slovenian **A5E03436664**
- English, Danish, Greek, Portuguese, Swedish, Hungarian **A5E03436683**

Operating Instructions for NCS Sensor

- German/English/French/Spanish/Italian **A5E00097485**

SIPART PS2 device documentation

- CD-ROM with complete documentation for all device versions **A5E00214567**

SITRANS I200 output isolator HART (see "SITRANS I supply units and isolation amplifiers") with

- 24 V DC power supply } **7NG4131-0AA00**

HART modem for connecting to PC or laptop

- with RS232 interface } D) **7MF4997-1DA**
- with USB interface } D) **7MF4997-1DB**

} Available ex stock.

¹⁾ Only together with 6DR4004-8S and 6DR4004-1M.

C) Subject to export regulations AL: N, ECCN: EAR99.

D) Subject to export regulations AL: N, ECCN: EAR99H.

Note:

All the above-mentioned manuals are available at Tubi Valves

Scope of delivery for positioner

- 1 SIPART PS2 positioner as ordered
- 1 CD-ROM with the complete documentation for all versions and accessories
- Manual "SIPART PS2 - Configuration At a Glance"