

I/O modules

Configuring lists

Modules which can be used on the I/O bus of AS 235

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The following table does not refer to the availability of modules but to their approval for use in AS 235 systems.

Designation	Order No. of module	Release	Remarks
Closed-loop control modules			
S controller, single-channel, with individual control unit	6DS1 400-8AA	≥ 12	1) 14)
	6DS1 400-8BA	≥ 1	14)
K controller, single-channel, with individual control unit	6DS1 401-8AA	≥ 7	1)
	6DS1 401-8BA	≥ 1	14)
S controller, two-channel	6DS1 402-8AA	≥ 10	1) 14)
	6DS1 402-8BA	≥ 1	14)
K controller, two-channel	6DS1 403-8AA	≥ 19	1) 14)
	6DS1 403-8BA	≥ 1	14)
	6DS1 403-8CA	≥ 1	14)
K controller, two-channel, with NAMUR limits	6DS1 403-8CB	≥ 1	14)
Closed-loop controle module S, configurable	6DS1 408-8BB	≥ 2 SW:B03	14)
Closed-loop controle module K, configurable	6DS1 410-8BB	≥ 2 SW:B03	14)
Closed-loop controle module S, configurable, two-channel	6DS1 411-8AA	≥ 1 SW:B01	14)
	6DS1 411-8RR	≥ 1 SW: > 2	14)
Closed-loop controle module K, configurable, two-channel	6DS1 412-8AA	≥ 1 SW:B01	14)
	6DS1 412-8RR	≥ 2 SW: > 2	14)
Individual control drive modules			
for 1 motor or 1 solenoid valve	6DS1 500-8AA	≥ 10	
	6DS1 500-8BA	≥ 1	
for actuator	6DS1 501-8AA	≥ 13	
	6DS1 501-8AB	≥ 13	
for actuator, without feedback	6DS1 501-8BA	≥ 1	
for actuator, with feedback	6DS1 501-8BB	≥ 1	
for motors or solenoid valves, three-channel	6DS1 502-8AA	≥ 12	
	6DS1 502-8BA	≥ 2	
for actuators, three-channel	6DS1 503-8AA	≥ 11	
	6DS1 503-8BA	≥ 2	
for 4 final control elements with 1 rest position, with monitoring	6DS1 504-8AA	≥ 3	
for 8/4 final control elements with 1 or 2 rest positions, without monitoring	6DS1 505-8AA	≥ 2	
Binary output modules			
32 outputs, 100 mA each, non-floating	6DS1 603-8AA	≥ 2	
	6DS1 603-8AB	≥ 1	
	6DS1 603-8BA	≥ 7	1) 13)
	6DS1 603-8RR	≥ 1	
16 outputs, 400 mA each, non-floating	6DS1 604-8AA	≥ 1	8)
16 relays, floating	6DS1 605-8AA	≥ 1	
	6DS1 605-8BA	≥ 2	
PRA 16 relays, testable	6DS1 606-8BA	≥ 5	1)

See overleaf for explanations on the table

Designation	Order No. of module	Release	Remarks
Binary input modules			
for 16 NO/NC contacts, non-floating, with monitoring and simulation	6DS1 600-8AA	≥ 5	1)
48 inputs, DC 24 V, non-floating	6DS1 601-8AA	≥ 3	1) 6)
with INT and process alarm with INT as common alarm module	6DS1 601-8AC	≥ 2	1) 7)
	6DS1 601-8BA	≥ 2	7)
32 inputs, DC 24 V, floating	6DS1 602-8AA	≥ 1	1)
	6DS1 602-8BA	1; 2; ≥ 4	5) 6) 11)
Interrupt, 48 inputs as common alarm module	6DS1 615-8AA	≥ 4	7)
for 8 changeover contacts	6DS1 620-8AA	≥ 5	
for 8 BERO DC 24 V switches	6DS1 621-8AA	≥ 5	
PBE, testable	6DS1 618-8CA	≥ 4	
Counter modules			
Metering pulse input module with 8 channels for DC 24 V signals, floating	6DS1 607-8AB	≥ 1	5)
Proportioning counter module with 2 or 4 channels	6DS1 613-8AB	≥ 1 SW=5	1)
	6DS1 613-8BB	≥ 6	1)
Analog output modules			
4 channels, floating	6DS1 702-8AA	≥ 5	1)
	6DS1 702-8RR	≥ 1	
Analog input modules			
8 channels and power supply for transmitters, floating	6DS1 700-8AA	≥ 10	1) 14)
	6DS1 700-8AB	≥ 16 SW:1	14)
	6DS1 700-8BA	≥ 1	14)
	6DS1 700-8BB	≥ 1 SW:1	14)
	6DS1 701-8AA	≥ 1 SW:1	14)
	6DS1 701-8AB	≥ 2 SW:1	14)
Measurement-point extension with 14 channels for thermocouples and resistance thermometers	6DS1 703-8AB	= 1	14) 17)
	6DS1 703-8RR	= 1	14) 17)
4 channels for thermocouples and resistance thermometers	6DS1 713-8AB	≥ 1	14)
8 channels and power supply for transmitters, non-floating	6DS1 730-8AA	≥ 1	5) 9) 14)
4 channels for thermocouples, resistance thermometers and process signals, floating, configurable	6DS1 731-8AA	≥ 1	5) 9) 14)
	6DS1 731-8BA	≥ 1 SW: ≥ 1	5) 9) 14)
	6DS1 731-8EA	≥ 1	5) 9) 14)
	6DS1 731-8FA	≥ 1	5) 9) 14)
	6DS1 731-8RR	≥ 4 SW:3	5) 9) 14)

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Designation	Order No. of module	Release	Remarks
Analog calculation modules			
Analog calculation module	6DS1 715-8BB	≥ 2 SW:03	
Binary calculation modules			
Binary calculation module	6DS1 717-8AA	≥ 15 SW:08	16)
Binary/analog calculation module (max. 31 channels)	6DS1 717-8RR	≥ 1 SW:3	
Binary extension	6DS1 719-8AA	≥ 2	15)
Analog extension	6DS1 720-8AA	≥ 1	15)
Binary extension (for 6DS1 717-8RR)	6DS1 719-8RR	≥ 1	
Coupling modules			
Speed controller	6DS1 303-8AA	≥ 9	
Field multiplexer FM	6DS1 304-8AA	≥ 6 SW: 2	1)
	6DS1 304-8BB	≥ 1 SW: 2	1)
S5-110A, with 4 channels	6DS1 310-8AA	≥ 8	
S5-110A, with 1 channel	6DS1 310-8AB	≥ 8	
S5 coupling, serial	6DS1 318-8AB	≥ 3 SW: 1	1)
S5 coupling (expansion unit)	6DS1 321-8AA	≥ 4	
S5 coupling, serial	6DS1 333-8AB	≥ 1	
S7 coupling, serial	6DS1 333-8AB	≥ 1	22)
MODBUS coupling (on request)	6DS1 333-8AB with M1328-V5	≥ 1 SW=5	3)
I/O bus remote coupling AS - I/O bus - ES 100 K	6DS1 322-8AA	≥ 5	1) 12)
Coupling of SIPART DR20 and TELEPERM D compact controllers	6DS1 325-8AA	≥ 2	2) 3)
S5 coupling, serial, ET 100, EU / I/Os, TM-S5 coupling module	6DS1 327-8AA	≥ 4	
Serial coupling, 4 channels, hardware without firmware	6DS1 328-8AA	≥ 2	18)
TM/EA coupling I/O bus	6DS1 312-8BB	≥ 2	10)
Coupling of external computer via CS 275 / N-V.24	6DS1 202-8AB	≥ 5	19) 20)
CP 581 TM interface modules			
CP 581 TM communications module	6DS1 337-1AD with S5KE, S5KS	≥ 1 SW: ...	2) 19) 20) 21)
CP 581 TM-L2 (DP/FDL)	6DS1 341-1AD with DP drivers	≥ 1 SW: ...	2) 19) 20) 21)
CP 581 TM-L2 (FMS)	6DS1 341-1BD with S5KE, S5KS	≥ 1 SW: ...	2) 19) 20) 21)
CP 581 TM FUZZY	6DS1 342-1BD with S5KE, S5KS	≥ 1 SW: ...	2) 19) 20) 21)

Explanations for the column „Remarks“

- 1) Earlier release versions not permissible!
- 2) Special product
- 3) Not a standard product, no system test carried out
- 4) Cannot be operated in AS 235 systems without auxiliary driver
- 5) Application only without interrupt!
- 6) No application as common alarm module (SF 61)
- 7) Approved for common alarm modules, the latest product release is required.
- 8) Note current balance of subrack:
max. 4 A per module, max. 16 A per subrack
- 9) Combination modules for use in TELEPERM M standard systems and in TELEPERM ME systems. Application in AS 235 extension units only as TELEPERM ME module with slot addressing.
- 10) AS 235: with release ≥ 2,
AS 235 H and AS 235 K: with release ≥ 1.
- 11) With AS 235 H: > 5. Note: Release 3 is not allowed!
- 12) Observe cycle time for processing with ES 100 K! (delay resulting from cable lengths)
- 13) Application in ES 100 K not allowed (timing)
- 14) Connection of transmitters with two-wire system not permissible with AS 235 K and ES 100 K in AC 230 V! The ripple of the power supply in the AS is too high for these transmitters and the connection system.
- 15) Module only functions together with 6DS1 717-8AA
- 16) Only alarm function
- 17) Module only functions together with 6DS1 713 or 6DS1 731
- 18) Only a hardware module; no function in delivered state. For use with standard drivers, the module firmware is usually adapted to existing drivers.
- 19) A maximum of 2 modules of type N-V.24 or CP 581 TM are permissible in a system (in basic and extension cabinet)
- 20) Application in ES 100 K not allowed (5 V power)
- 21) Hardware/software releases on request:
Siemens Karlsruhe,
Dep. I&S IT PS 12P2,
D-76181 Karlsruhe, Germany
- 22) S7 coupling with 3964 R / RK 512 procedure,
SEND/RECEIVE, SIMATIC S5 analog value format

Explanations for the column „Release“

- ≥ 5 tested with AS 235 system technology, no imperative release version.
No negative information with earlier releases.
- 1; 2; permissible releases
- =5 valid release of a module
- ≥ 6 ≥ and remark 1) mean an imperative minimum release (6 in this case), i.e. upgrading is essential at least up to release 6.

Observe the respective indexed remarks for the individual modules. ■