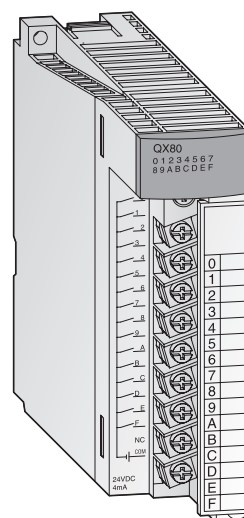
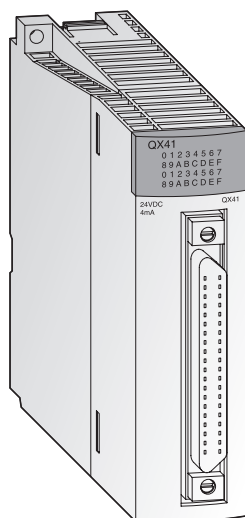


■ Digital Input Modules

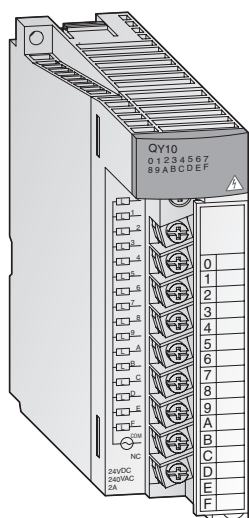


Specifications	QX50	QX80	QX80-TS	QX81	QX82-S1
Input points	16	16	16	32	64
Insulation method	Photocoupler insulation between input terminals and PC power for all modules.				
Rated input voltage	48 V DC	24 V DC	24 V DC	24 V DC	24 V DC
Operating voltage range	V 40.8–52.8	20.4–28.8	20.4–28.8	20.4–28.8	20.4–28.8
Max. simultaneously ON (at rated voltage)	100 %	100 %	100 %	100 %	100 % ^②
Inrush current	—	—	—	—	—
Rated input current	mA Approx. 4	approx. 4	approx. 4	approx. 4	approx. 4
ON	Voltage	V ≥DC 28	≥DC 19	≥DC 19	≥DC 19
	Current	mA ≥DC 2.5	≥DC 3	≥DC 3	≥DC 3
OFF	Voltage	V ≥DC 10	≤DC 11	≤DC 11	≤DC 9.5
	Current	mA ≥DC 1.7	≤DC 1.7	≤DC 1.7	≤DC 1.5
Load resistance	kΩ Approx. 11.2	approx. 5.6	approx. 5.6	approx. 5.6	approx. 5.6
Response time	OFF → ON	ms 1–70 ^①	1–70 ^①	1–70 ^①	1–70 ^①
	ON → OFF	ms 1–70 ^①	1–70 ^①	1–70 ^①	1–70 ^①
Common terminal arrangement	16	16	16	32	32 x 2
Power indicator	All modules with 16 and 32 inputs possess a status LED per input. For modules with 64 inputs the indication is switchable.				
Connection terminal	18-point removable terminal block with screws	18-point removable terminal block with screws	Removable terminal block with spring terminals	Compact connector 37-pin D-Sub	40-pin connector x 2
No. of occupied I/O points	16	16	16	32	64
Applicable wire size	mm ² 0.3–0.75	0.3–0.75	0.3–0.75	0.3	0.3
Internal power consumption (5 V DC)	mA 50 (all input points ON)	50 (all input points ON)	50 (all input points ON)	75 (all input points ON)	90 (all input points ON)
Weight	kg 0.13	0.16	0.16	0.16	0.18
Dimensions (WxHxD)	mm 27.4x98x90	27.4x98x90	27.4x98x90	27.4x98x90	27.4x98x90
Order information	Art. no. 204678	127587	221840	129594	150837
Accessories	40-pin connector and ready to use connection cables (refer to pages 57–58); Spring clamp terminal block for exchange against the standard screw terminal block (refer to page 60)				

① CPU parameter setting (default setting: 10 ms)

② at 45 °C

■ Digital Output Modules



Adapted output technology

The MELSEC System Q output modules have different switching elements for adaptation to many control tasks.

Special features:

- Output modules with relay, transistor or triac switches
- Potential isolation between process and control by means of an optocoupler is a standard feature
- Modules with potential isolation between the channels
- Modules with 16 protection points have removable terminal blocks with screws
- Assembled cables are available for modules with D-sub plugs (Q32CBL: 3 m or 5 m; Q40CBL: 3 m or 5 m).
- Different system terminals for simplified cabling and to supplement the performance of the modules are available.

Specifications	QY10	QY10-TS	QY18A	QY22	QY40P	QY40P-TS	QY41P	QY42P	
Outputs	16	16	8	16	16	16	32	64	
Output type	Relay	Relay	Relay	Triac	Transistor (sink type)	Transistor (sink type)	Transistor (sink type)	Transistor (sink type)	
Common terminal arrangement points	16	16	8	16	16	16	32	32	
Insulation method	Relay	Relay	Relay	Photocoupler insulation between output terminals and PC power					
Rated output voltage	24 V DC/240 V AC	24 V DC/240 V AC	24 V DC/240 V AC	100–240 V AC	12/24 V DC (sink type)	12/24 V DC (sink type)	12/24 V DC (sink type)	12/24 V DC (sink type)	
Operating voltage range	—	—	—	—	10.2–28.8 V DC	10.2–28.8 V DC	10.2–28.8 V DC	10.2–28.8 V DC	
Min. switching load	5 V DC (1 mA)	5 V DC (1 mA)	5 V DC (1 mA)	24 V AC (100 mA) 100 V AC (25 mA) 240 V AC (25 mA)	—	—	—	—	
Max. switching voltage	125 V DC/264 V AC	125 V DC/264 V AC	125 V DC/264 V AC	288 V AC	—	—	—	—	
Max. output current	A 2	2	2	0.6	0.1	0.1	0.1	0.1	
Output current per group TYP	A 8	8	8	4.8	1.6	1.6	2	2	
Inrush current	—	—	—	—	0.7 A for 10 ms	0.7 A for 10 ms	0.7 A for 10 ms	0.7 A for 10 ms	
Leakage current at OFF	mA —	—	—	≤1.5 (120 V AC), ≤3 (240 V AC)	≤0.1	≤0.1	≤0.1	≤0.1	
Response time	OFF → ON	ms ≤10	≤10	≤10	1	≤1	≤1	≤1	
	ON → OFF	ms ≤12	≤12	≤12	1	≤1	≤1	≤1	
Life	Mechanical	Switching 20 million times			—	—	—	—	
	Electrical	Switching 100000 times or more			—	—	—	—	
Max. switching frequency	Switching 3600 times/h			—	—	—	—		
Noise suppression	—	—	—	CR absorber	Zener diode	Zener diode	—	—	
Fuse	—	—	—	—	—	—	Short-circuit proof	Short-circuit proof	
Power indicator	All modules possess a status LED per output.								
Fuse blown indicator	—	—	—	—	—	—	—	—	
Connection terminal	18-point removable terminal block with screws	Removable terminal block with spring terminals	18-point removable terminal block with screws	18-point removable terminal block with screws	18-point removable terminal block with screws	Removable terminal block with spring terminals	40-pin connector	40-pin connector x 2	
I/O points	16	16	16	16	16	16	32	64	
Applicable wire size	mm ² 0.3–0.75	0.3–0.75	0.3–0.75	0.3–0.75	0.3–0.75	0.3–0.75	0.3	0.3	
Ext. power supply req.	Voltage	—	—	—	12–24 V DC	12–24 V DC	12–24 V DC	12–24 V DC	
	Current	—	—	—	10 (24 V DC)	10 (24 V DC)	20 (24 V DC)	20 (24 V DC)	
Internal power consumption (5 V DC)	mA 430	430	430	250	65	65	105	150	
Weight	kg 0.22	0.22	0.22	0.40	0.16	0.16	0.15	0.17	
Dimensions (WxHxD)	mm 27.4x98x90	27.4x98x90	27.4x98x90	27.4x98x90	27.4x98x90	27.4x98x90	27.4x98x90	27.4x98x90	
Order information	Art. no.	129605	221841	136401	136402	132575	221842	132576	132577

Accessories 40-pin connector and ready to use connection cables (refer to pages 57–58); Spring clamp terminal block for exchange against the standard screw terminal block (refer to page 60)