

General

WindowMaster products	
Connection	WindowMaster window actuators must only be connected to genuine WindowMaster power supplies. If power supplies other than WindowMaster are used for connection to WindowMaster window actuators then this will invalidate in full any warranty or guarantee for WindowMaster window actuators. WindowMaster take no responsibility for the performance of WindowMaster products or third party products in this instance.
Cleaning	Product surface may be cleaned with a soft damp cloth using a small amount of household cleaner diluted in water.
Maintenance	<p>Power supplies are to be regularly tested. Maintenance of smoke ventilation systems is to be carried out at least once per year, according to the national guidelines.</p> <p>Actuators are to be regularly tested and lubricated, and the window hinges are to be lubricated according to the suppliers maintenance instructions.</p> <p>Sensors are to be regularly tested, cleaned and calibrated every 3 years.</p> <p>All faults, loose parts or other irregularities should immediately be repaired.</p> <p>WindowMaster offers service agreements to secure the long term reliability of the products. Please see separate sheet for further details.</p>
Smoke ventilation	<p>Connectors mounted at the factory must be replaced by ceramic connectors. Always use silicon cables.</p> <p>Smoke ventilation systems are to be tested according to building regulations. WindowMaster offers a service agreement for comfort and smoke ventilation solutions. Please see separate sheet for further details.</p>
Transportation	Protect against humidity during transport, storage and installation.
Packing disposal	The packing can be disposed of together with ordinary household waste and recycled.
Product disposal	Disposal of the product should conform to regulations for electronic waste and not with usual household waste.
Legal notice	WindowMaster claims no responsibility or guarantee for the topicality, correctness or completeness of the accessed information and reserves rights to supply and change the information at any time.

Symbol description		
	Natural ventilation	The product is suitable for comfort ventilation.
	Smoke ventilation	The product is suitable for smoke ventilation.
	Smoke ventilation EN 12101	The product is suitable for smoke ventilation accordingly to EN 12101. Please contact WindowMaster for further information.
	Smoke ventilation B300	The product is suitable for smoke ventilation accordingly to B300. Please contact WindowMaster for further information.
24V	±24V control	The product is to be connected to a ±24V power supply.
230V	Rated voltage	Symbol for rated voltage 120V, 230V and 230-400V.
MAX 4A	Maksimal output current	Symbol for max. 4A, max. 4.8A, max. 20A and max. 60A.
	MotorLink®	The product communicates with power supplies with MotorLink® – an intelligent patented digital communication from WindowMaster. This provides millimetre-by-millimetre control of the actuator, 3 open/close speeds, pressure safety function, fully synchronised actuators without external synchronisation module and early fault indication of any potential faults
	TrueSpeed™	The product can with the TrueSpeed™ technology slow down the actuator movement (down to 1mm per second), which enables the actuators to run completely silent.
VdS	VdS approved	The product is certified in accordance with VdS.
KNX	KNX product	The product is KNX certified.
BACnet	BACnet product	The product is BACnet certified.
Modbus	Modbus product	The product is Modbus certified.
LON	LON product	The product is LON certified.
	io-homecontrol® product	The product is a io-homecontrol® product
	UL certification – Controls	UL certification for USA according to UL325 and for Canada according to CSA C22.2 no.247-14
	UL certification – Actuators	UL certification for USA according to UL325 and for Canada according to CSA C22.2 no.247-14
CNBOP-PIB	CNBOP-PIB certification	CNBOP-PIB certification
NF	NF certification	NF certification according to NF S61-938 and NF 537.

Cable dimensions

For the maximum cable length for power supplies in conjunction with standard actuator (taking into consideration the stated cable cross sections) please refer to the following table.

Maximum cable length: always routed from the power supply to the last junction box
 Actuator current: sum of all motor currents per group

Note

- do not use green/yellow (ground) wire!
- formula to calculate the max cable length
- maximum voltage drop in the cable UL: 2V

$$\text{Max cable length} = \frac{\text{admissible voltage drop (UL)} \times \text{conductivity of copper (56)} \times \text{cable cross section (a)}}{\text{total max. actuator current (I) in amps} \times 2}$$

Cable specifications is a guide only, overall responsibility resides with the electrical contractor on site.

Max. cable length when actuator is connected to power supply

Cable cross section (a) (do not use green/yellow (ground) wire!)	3 wire 0.75mm ² (AWG 18)	3 wire 1.50 mm ² (AWG 15)	3 wire 2.50 mm ² (AWG 13)	3 wire 4.00 mm ² (AWG 11)	5 wire 1.50 mm ² (AWG 15) 2 wire parallel	5 wire 2.50 mm ² (AWG 13) 2 wire parallel
Total actuator current [I]						
±24V power supply						
1A	42m (137ft)	84m (275ft)	140m (459ft)	224m (734ft)	168m (551ft)	280m (918ft)
2A	21m (68ft)	42m (137ft)	70m (229ft)	112m (367ft)	84m (275ft)	140m (459ft)
3A	14m (45ft)	28m (91ft)	47m (154ft)	75m (246ft)	56m (183ft)	93m (305ft)
4A	11m (36ft)	21m (68ft)	35m (114ft)	56m (183ft)	42m (137ft)	70m (229ft)
5A	8m (26ft)	17m (55ft)	28m (91ft)	45m (147ft)	34m (111ft)	56m (183ft)
6A	7m (22ft)	14m (45ft)	23m (75ft)	37m (121ft)	28m (91ft)	47m (154ft)
7A	6m (19ft)	12m (39ft)	20m (65ft)	32m (104ft)	24m (78ft)	40m (131ft)
8A	5m (16ft)	11m (36ft)	18m (59ft)	28m (91ft)	21m (68ft)	35m (114ft)
9A		9m (29ft)	15m (49ft)	25m (82ft)	18m (59ft)	31m (101ft)
10A		8m (26ft)	14m (45ft)	22m (72ft)	16m (52ft)	28m (91ft)
20A		4m (13ft)	7m (22ft)	11m (36ft)	8m (26ft)	14m (45ft)
MotorLink® power supply						
1A	42m (137ft)	50m (164ft)	50m (164ft)	50m (164ft)	50m (164ft)	50m (164ft)
2A	21m (68ft)	40m (131ft)				
3A	14m (45ft)	28m (91ft)	47m (154ft)			
4A	11m (36ft)	21m (68ft)	35m (114ft)		42m (137ft)	
5A	8m (26ft)	17m (55ft)	28m (91ft)	45m (147ft)	34m (111ft)	
6A	7m (22ft)	14m (45ft)	23m (75ft)	37m (121ft)	28m (91ft)	47m (154ft)
7A	6m (19ft)	12m (39ft)	20m (65ft)	32m (104ft)	24m (78ft)	40m (131ft)
8A	5m (16ft)	11m (36ft)	18m (59ft)	28m (91ft)	21m (68ft)	35m (114ft)
9A		9m (29ft)	15m (49ft)	25m (82ft)	18m (59ft)	31m (101ft)
10A		8m (26ft)	14m (45ft)	22m (72ft)	16m (52ft)	28m (91ft)
20A		4m (13ft)	7m (22ft)	11m (36ft)	8m (26ft)	14m (45ft)

General

Actuator variants on one MotorLink® motorline

1. When connecting window actuators one should pay attention to:
 - the max current load of the MotorControllers: the max load on the MotorController is 10A per motorline (simultaneously load). The simultaneously max current consumption of all motorlines must not exceed max 20A.
 - the cable length and cross section: the max distance between the MotorController and the window actuators is 50m (164' 1/2"), however with a max voltage drop of 2V in the cable
2. Aside from window actuators; espagnolettes type WMB 81x-n (one single or two double actuators), can be connected to the window. When connecting an espagnolette each window must have its own motorline

