



**Exalto**  
WIPER TECHNOLOGIES

***Your  
No. 1 supplier  
for High Quality  
Wiper Systems!***

## EXALTO WIPER RANGE SPECS

WINDOW HEIGHT		up to 1100 mm								up to 1600mm	up to 2100 mm			
		LD	MD1						MD2	HD1	HD2			
Nm range		15	23-35						40	55	80-110			
motors		215BD	223BD.o	223BD.c ex233BD	223BDS	223BS	223KG.o	223KG.c ex235KG	232BD	232XP	240BS	255BS	280	2110
arms series		LD	MD1	MD1	MD1	MD1	MD1	MD1	MD1	MD1	MD2	HD1	HD2	HD2
		(LD)	(PU)	(PU)	(PU)	(PU)	(PU)	(PU)	(PU)	(PU)	(PF)	(P10)	(P12)	(P12)
voltage	V	12/24	12/24	12/24	12/24	12/24	12/24	12/24	12/24	12/24	12/24	12/24	24	24
torque	Nm	15	23	23	23	23	23	23	32	32	40	55	80	110
power consumption	W	15	36	36	36	36	36	36	40	40	36/48	84/96	55/77	84/110
Insulated Earth Return		yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
housing arrangement		closed, IP66	open	closed	open	open	open	closed	closed	open	open	open	open	open
bulkhead mount		yes	yes	yes	yes	yes	no	no	yes	yes	yes	yes	yes	yes
glass mount		yes	no	no	no	no	yes	yes	no	no	no	no	no	no
standard bulkhead thickness	mm	15/35/60	20-35-55-75	100-125	20-35-55-75	20-35-55-75	glass mount	glass mount	100-125	25-50	30	30-65	25	25
max. arm length	mm	600	750	750	750	750	450	450	750	750	900	1000	1500	1500
max blade length	mm	600	750	800	750	750	500	500	800	800	900	1200	1500	1500
two speeds		yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
self-parking		yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
wiping arc 40-110		10 increments	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
wiping arc 40-90		NA	5 increments	5 increments	5 increments	stepless	5 increments	5 increments	5 increments	20 increments	stepless	stepless	stepless	stepless
drive shaft sleeve	mm	16	20	20	20	20	20	11	20	20	20	20	27	27
idler spindle/sleeve	mm	external mounting plate (supplied with pantograph arms)	8	8	NA	8	8	8	8	8	20	20	27	27
centre distance	mm	45 (external pantograph plate)	50	50	NA	50	50	50	50	50	60	60	60	60
driven shaft(s)		single	single	single	single	single	single	single	single	single	dual	dual	dual	dual
cover available		NA	yes	no	yes	no	yes	no	no	no	no	no	no	no



### EXALTO DESIGN AND DEVELOPMENT ENGINEERING SUPPORT

Exalto designs its own equipment. Experience, the drive to innovate, bench and field tests plus field feedback from over 30 years are the ingredients for our current and future designs. Designs that have been transformed into products that are used all over the world, resulting in thousands of varieties for all kinds of environment.

Our engineers are continuously striving to improve our products and are available to support you in getting the best solution for your application. With modern 3D software, which enables us to use simulated examples and/or proto type test projects, we are able to give you a complete new view.

Let us support you with our knowledge!

### EXALTO PERMANENT TEST ROOM FOR ENDURANCE AND DEVELOPMENT TESTING

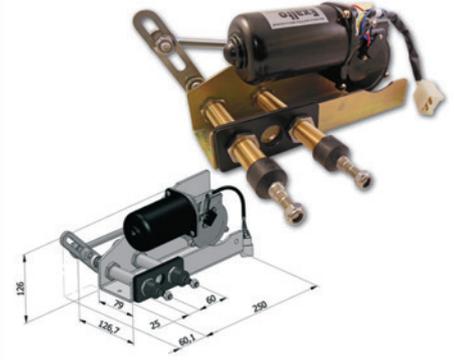
Exalto does type test all standard products prior to introduction to the market. With growing demands for the increase of window sizes and therefore the requirement of extended arm- and blade lengths, we feel the need for endurance tests. On our Dutch premises we do have such a permanent test facility and there we undertake a variety of tests on complete systems and on individual parts. External bench tests are used to generate substantial product proof testimonials prior to market use.

## HD1 Wiper motors 255BS

This new model is the replacement for the 250BS. The motor is stronger and has an assembled plug. Self-parking wiper motor for bulkhead mounting. The 255BS is a powerful wiper with dual driven shafts. It can clean windows up to a height of 1600 mm. With a torque of 55 Nm, this wiper can drive arms till 1 meter in length and blades till 1.2 metres. This motor has insulated earth return as a standard. The wiping angle of this wiper motor is steplessly variable from 40° till 90°.

Max. bladlength : 1200 mm  
 Ø driveshaft : 20 mm  
 Ø Idler spindle : 20 mm

Voltage	Voltage	Wall thickness	Torque	Power	Art.Code
12 V	12 V	35 mm	55 Nm	84 W	211255.35
12 V	12 V	65 mm	55 Nm	84 W	211255.65
24 V	24 V	35 mm	55 Nm	96 W	212455.35
24 V	24 V	65 mm	55 Nm	96 W	212455.65
12/24V	12/24V	xx mm	55 Nm	28 / 16 W	2181.03



## HD1 Wiper arms P10

The P10 arms are specially designed for wiper motor 250BS. Exalto P10 arms are available for standard and H.D. blades till 800 mm in length, or for H.D. blades from 900 till 1200 mm in length. The arm is manufactured from stainless steel 316 and has brass, seawater resistant heads. The P10 arms have two fixed springs as a standard. If you want to adjust the pressure on the glass yourself, P10 arms with two steplessly adjustable springs are also available. The P10 arms have a swivelling blade clip, to adjust the position of the blade in relation to the window configuration easily. The arm has a black coating to prevent reflection as a standard. However, these arms with fixed springs are also available in high polished stainless steel. The P10 arms with fixed springs can be folded back. This makes it easier to mount the arms, change the blades or clean the window. N.B. The P10 arms with adjustable springs do not have this fold-back feature.

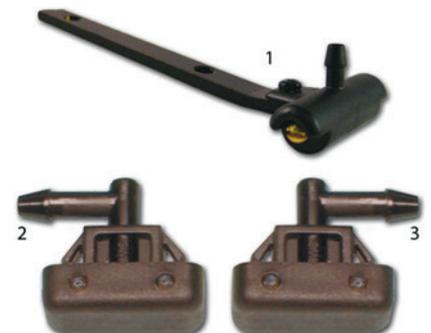


Position	Wiper arm length	Nr. of springs	Max. bladlength	Art.Code
1	900 - 1200 mm	2	900 - 1200 mm	2142.B
3	900 - 1200 mm	2	900 - 1200 mm	2142.BAS
2	900 - 1200 mm	2	900 - 1200 mm	2142.BP
1	300 - 800 mm	2	300 - 800 mm	2142.S
3	300 - 800 mm	2	300 - 800 mm	2142.SAS
2	300 - 800 mm	2	300 - 800 mm	2142.SP

## HD1 Washing jets P10

These washing jets can be fitted on Exalto pantograph arms PF, P10 and P12. With most washing jets the angle under which the water is sprayed on the window, can be adjusted.

Position	Description	Art.Code
1	Washing jet, 4 nozzles for HD1 P10 & HD2 P12 right	2185
2	Washing jet 4 nozzles for HD1 P10 & HD2 P12	2185L
3	Washing jet, 6 nozzles for HD1 P10 en HD2 P12	2111.cpl





### HD1 Wiper blades SS 316

All Exalto wiper blades are manufactured of stainless steel 316. To prevent reflection, a black coating is applied on all metal parts. The Heavy Duty blades have a lower profile than the standard blades and a reduced lift. This makes them perfect for applications where a little more pressure is required. The Heavy Duty blades are also more screen friendly due to the use of plastic lower bridges. In case of damaged rubber, these plastic bridges will not damage the screen. The Exalto H.D. blades are also available in a polished version. So you can choose the look that fits your vessel. Keep in mind that every motor has a maximum blade length when choosing your wiperblade.

Position	Blade length	Art.Code
1	250 mm	2170
1	300 mm	2171
1	350 mm	2172
1	400 mm	2173
1	450 mm	2174
1	500 mm	2175
1	550 mm	2176
1	600 mm	2177
1	650 mm	2178
1	700 mm	2179
1	750 mm	2195
1	800 mm	2196
2	610 mm	216120
2	650 mm	216121
2	700 mm	216122
2	750 mm	216123
2	800 mm	216124
2	850 mm	216125
2	900 mm	216126
2	950 mm	216127
2	1000 mm	216128
2	1100 mm	216129
2	1200 mm	216130
3	610 mm	216120P
3	650 mm	216121P
3	700 mm	216122P
3	750 mm	216123P
3	800 mm	216124P
3	850 mm	216125P
3	900 mm	216126P
3	950 mm	216127P
3	1000 mm	216128P
3	1200 mm	216130P



### HD1 Wiper controls Retro

These switches offer two speeds and self-parking controls with separate connections for pumps or solenoids.

Position	Description	Voltage	Art.Code
1	2-speed wiper control for 1 wiper	12/24 V	2134
2	2-speed wiper control for 2 wipers	12/24 V	2135
3	2-speed, intermittend wiper control	12 V	2158
3	2-speed, intermittend wiper control	24 V	2159
4	Panel for 2-speed intermittend switch		2159.01

## HD1 Wiper controls CT2N

Electronic control for up to two, three, four or five Exalto wipers. Wipers can be switched individually or in any combination. The complete wiper control consists of one flush mount panel, one junction and a 4 m connection cable to connect the panel to the junction box. The wiper control offers two continuous speeds, three step intermittent wipe and a wipe/wash feature. In the low continuous mode and in the intermittent mode, all wipers run synchronised in all speeds and are self-parking. LED indicators on the panel indicate the selected speed setting.

Description	Voltage	L x W	Art.Code
Exalto Wiper Control for max. 2 wipers	12/24 V	100 x 100 mm	21021224
Exalto Wiper Control for max. 3 wipers	12/24 V	100 x 100 mm	21031224
Exalto Wiper Control for max. 4 wipers	12/24 V	100 x 100 mm	21041224
Exalto Wiper Control for max. 5 wipers	12/24 V	100 x 100 mm	21051224



## HD1 Wiper control CT2N extra panel

The Exalto Electronic wiper control can easily turn into a dual control system by adding an extra panel. A 5m cable is included.

Description	Voltage	L x W	Art.Code
Extra control panel for 2 wipers	12/24 V		21021224.P
Extra control panel for 3 wipers	12/24 V		21031224.P
Extra control panel for 4 wipers	12/24 V	50 x 25 mm	21041224.P
Extra control panel for 5 wipers	12/24 V	50 x 25 mm	21051224.P



## HD1 Wiper controls CT41 & CT42

These switches are micro-controller based "intelligent" switches for operating one or two Exalto H.D. wiper motors. They provide all functions for a proper window cleaning. The switches consist of a touch pad with a 45 cm connection cable. The switches offer two continuous speeds, three step intermittent, perfect self-parking due to dynamic break and a wipe/wash program. LEDs on the switch indicate the selected mode, speed and intermittent setting. The wiper switches operate with a power supply of 10 - 30V.

Installation dimensions H x W x D  
: 36,5 x 21 x 90 mm

Description	Voltage	Art.Code
Wiper control for 1 wiper	12/24 V	210341J
Wiper control for HD1 250, 255 & HD2 280	12/24 V	210342J

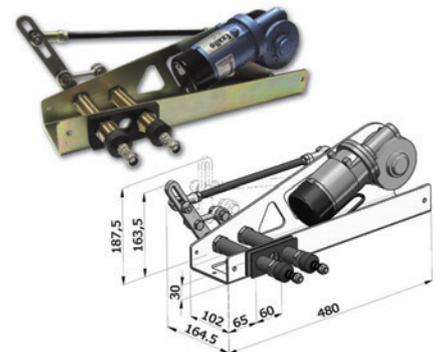


## HD2 Wiper motors 280BS

Self-parking wiper motor for bulkhead mounting. This wiper is only available in 24V. The 280BS is our most powerful wiper. With a torque of 80 Nm and dual driven shafts this wiper motor can power arms up to 1.5 metres and blades up to 1.2 metres. This means windows of maximum 2100 mm in height can be cleared.

Max. bladlength : 1200 mm  
Ø driveshaft : 27 mm  
Ø Idler spindle : 27 mm

Voltage	Voltage	Wall thickness	Torque	Power	Art.Code
24 V	24 V	25 mm	80 Nm	77 W	2178.30
24 V	24 V	xx mm	80 Nm	77 W	2181.02



### HD2 Wiper motors 2110

Self-parking wiper motor for bulkhead mounting. This wiper is only available in 24V. The 2110BS is our most powerful wiper. With a torque of 110 Nm and dual driven shafts this wiper motor can power arms up to 1.5 metres and blades up to 1.5 metres. This means windows of maximum 2100 mm in height can be cleared.

Max. bladlength	: 1500 mm
Ø driveshaft	: 27 mm
Ø Idler spindle	: 27 mm

Voltage	Wall thickness	Torque	Art.Code
24 V	25 mm	110 Nm	2178.110

### HD2 Wiper arms P12

The P12 arms are specially designed for the powerful 280BS and 2110BS wiper. The Exalto P12 arm will be customized to the required length. Please, note that therefore they have a longer delivery time. The P12 is available till maximum 1500 mm, and is not adjustable in length. The P12 arm is made of stainless steel 316 and has seawater resistant brass heads. A black coating is applied as a standard to prevent reflection. The Exalto P12 arms have two adjustable springs, to adjust the pressure on the glass steplessly. By means of the swivelling blade clip, you can park your blades parallel to the window. We advise you to use the Exalto Heavy Duty (H.D.) blades in combination with this arm. Description

Wiper arm length	Description	Nr. of springs	Max. bladlength	Art.Code
max. 1500 mm	Exalto wiper arm HD2 P12 with 2 adjustable springs	2	900 - 1200 mm	2144.B

### HD2 Washing jets P12

These washing jets can be fitted on Exalto pantograph arms PF, P10 and P12. With most washing jets the angle under which the water is sprayed on the window, can be adjusted.

Position	Description	Art.Code
2	Washing jet, 4 nozzles for HD1 P10 & HD2 P12 right	2185
3	Washing jet 4 nozzles for HD1 P10 & HD2 P12	2185L
1	Washing jet, 6 nozzles for HD1 P10 en HD2 P12	2111.cpl



**HD2 Wiper blades SS 316**

All Exalto wiper blades are manufactured of stainless steel 316. To prevent reflection, a black coating is applied on all metal parts. The Heavy Duty blades have a lower profile than the standard blades and a reduced lift. This makes them perfect for applications where a little more pressure is required. The Heavy Duty blades are also more screen friendly due to the use of plastic lower bridges. In case of damaged rubber, these plastic bridges will not damage the screen. The Exalto H.D. blades are also available in a polished version. So you can choose the look that fits your vessel. Keep in mind that every motor has a maximum blade length when choosing your wiperblade.

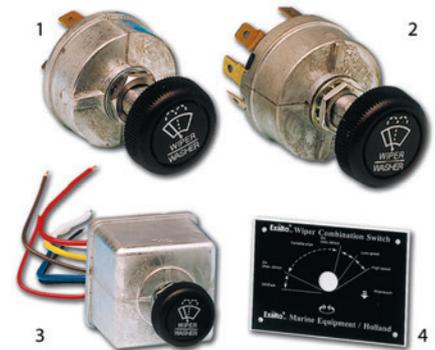


Position	Blade length	Art.Code
1	850 mm	216125
1	900 mm	216126
1	950 mm	216127
1	1000 mm	216128
1	1100 mm	216129
1	1200 mm	216130
2	610 mm	216120P
2	650 mm	216121P
2	700 mm	216122P
2	750 mm	216123P
2	800 mm	216124P
2	850 mm	216125P
2	900 mm	216126P
2	950 mm	216127P
2	1000 mm	216128P
2	1200 mm	216130P

**HD2 Wiper controls Retro**

These switches offer two speeds and self-parking controls with separate connections for pumps or solenoids.

Position	Description	Voltage	Art.Code
1	2-speed wiper control for 1 wiper	12/24 V	2134
2	2-speed wiper control for 2 wipers	12/24 V	2135
3	2-speed, intermittend wiper control	12 V	2158
3	2-speed, intermittend wiper control	24 V	2159
4	Panel for 2-speed intermittend switch		2159.01





### HD2 Wiper controls CT2N

Electronic control for up to two, three, four or five Exalto wipers. Wipers can be switched individually or in any combination. The complete wiper control consists of one flush mount panel, one junction and a 4 m connection cable to connect the panel to the junction box. The wiper control offers two continuous speeds, three step intermittent wipe and a wipe/wash feature. In the low continuous mode and in the intermittent mode, all wipers run synchronised in all speeds and are self-parking. LED indicators on the panel indicate the selected speed setting.

Description	Voltage	L x W	Art.Code
Exalto Wiper Control for max. 2 wipers	12/24 V	100 x 100 mm	21021224
Exalto Wiper Control for max. 3 wipers	12/24 V	100 x 100 mm	21031224
Exalto Wiper Control for max. 4 wipers	12/24 V	100 x 100 mm	21041224
Exalto Wiper Control for max. 5 wipers	12/24 V	100 x 100 mm	21051224



### HD2 Wiper controls CT2N extra panel

The Exalto Electronic wiper control can easily turn into a dual control system by adding an extra panel. A 5m cable is included.

Description	Voltage	L x W	Art.Code
Extra control panel for 2 wipers	12/24 V		21021224.P
Extra control panel for 3 wipers	12/24 V		21031224.P
Extra control panel for 4 wipers	12/24 V	50 x 25 mm	21041224.P
Extra control panel for 5 wipers	12/24 V	50 x 25 mm	21051224.P

## KW2 Linked wiper systems

The Exalto KW wiper system is custom-made, so in almost every situation the perfect solution can be offered. With one wiper a maximum of four arms can be driven. Main advantage of this wiper system is that the arms are easily adjustable in length. The arms have a swivelling blade clip, so in selfparking position the blade can be set parallel to the edge of the glass. The type E wiper arms are specially designed for the Exalto KW wiper systems. We advise you to use the Exalto H.D. blades. Features Exalto KW: • Easy to mount • Insulated earth return • Noiseless • Self-parking • Two speeds • Available for bulkhead thicknesses 20, 35, 55, 75, 100 and 125 mm • Stainless steel shafts, bolts and nuts • Self-lubricating bronze bearings • Maximum wiping angle 100° • Three types: for two, three or four pendulum arms

Max. bladlength : 700 mm  
Ø driveshaft : 20 mm



Voltage	Wall thickness	Torque	Power	Art.Code
12 V	20 mm	23 Nm	36 W	2123.02012
24 V	20 mm	23 Nm	36 W	2123.02024
12 V	35 mm	23 Nm	36 W	2123.03512
24 V	35 mm	23 Nm	36 W	2123.03524
12 V	55 mm	23 Nm	36 W	2123.05512
24 V	55 mm	23 Nm	36 W	2123.05524
12 V	75 mm	23 Nm	36 W	2123.07512
24 V	75 mm	23 Nm	36 W	2123.07524
12 V	100 mm	23 Nm	36 W	2123.10012
24 V	100 mm	23 Nm	36 W	2123.10024
12 V	125 mm	23 Nm	36 W	2123.12512
24 V	125 mm	23 Nm	36 W	2123.12524

## KW3 Linked wiper systems

The Exalto KW wiper system is custom-made, so in almost every situation the perfect solution can be offered. With one wiper a maximum of four arms can be driven. Main advantage of this wiper system is that the arms are easily adjustable in length. The arms have a swivelling blade clip, so in selfparking position the blade can be set parallel to the edge of the glass. The type E wiper arms are specially designed for the Exalto KW wiper systems. We advise you to use the Exalto H.D. blades. Features Exalto KW: • Easy to mount • Insulated earth return • Noiseless • Self-parking • Two speeds • Available for bulkhead thicknesses 20, 35, 55, 75, 100 and 125 mm • Stainless steel shafts, bolts and nuts • Self-lubricating bronze bearings • Maximum wiping angle 100° • Three types: for two, three or four pendulum arms

Max. bladlength : 750 mm  
Ø driveshaft : 20 mm



Voltage	Wall thickness	Torque	Power	Art.Code
12 V	20 mm	50 Nm	30 W	2150.02012
24 V	20 mm	50 Nm	30 W	2150.02024
12 V	35 mm	50 Nm	30 W	2150.03512
24 V	35 mm	50 Nm	30 W	2150.03524
12 V	55 mm	50 Nm	30 W	2150.05512
24 V	55 mm	50 Nm	30 W	2150.05524
12 V	75 mm	50 Nm	30 W	2150.07512
24 V	75 mm	50 Nm	30 W	2150.07524
12 V	100 mm	50 Nm	30 W	2150.10012
24 V	100 mm	50 Nm	30 W	2150.10024
12 V	125 mm	50 Nm	30 W	2150.12512
24 V	125 mm	50 Nm	30 W	2150.12524

### KW4 Linked wiper systems



The Exalto KW wiper system is custom-made, so in almost every situation the perfect solution can be offered. With one wiper a maximum of four arms can be driven. Main advantage of this wiper system is that the arms are easily adjustable in length. The arms have a swivelling blade clip, so in selfparking position the blade can be set parallel to the edge of the glass. The type E wiper arms are specially designed for the Exalto KW wiper systems. We advise you to use the Exalto H.D. blades. Features Exalto KW: • Easy to mount • Insulated earth return • Noiseless • Self-parking • Two speeds • Available for bulkhead thicknesses 20, 35, 55, 75, 100 and 125 mm • Stainless steel shafts, bolts and nuts • Self-lubricating bronze bearings • Maximum wiping angle 100° • Three types: for two, three or four pendulum arms

Max. bladlength : 750 mm  
 Ø driveshaft : 20 mm

Voltage	Wall thickness	Torque	Power	Art.Code
24 V	20 mm	80 Nm	77 W	2180.02024
24 V	35 mm	80 Nm	77 W	2180.03524
24 V	55 mm	80 Nm	77 W	2180.05524
24 V	75 mm	80 Nm	77 W	2180.07524
24 V	100 mm	80 Nm	77 W	2180.10024
24 V	125 mm	80 Nm	77 W	2180.12524

### KW Wiper arms E



The E-arms are specially designed for the Exalto KW linked and single shaft (e.g. 223BDS) wiper systems. They are made of stainless steel and have a black coating. These pendulum arms have a stepless swivelling blade clip.

Wiper arm length	Description	Max. bladlength	Art.Code
350-450 mm	Single adjustable arm, Type KW E	300 - 750 mm	2103
500-600 mm	Single adjustable arm, Type KW E	300 - 750 mm	2106
650-750 mm	Single adjustable arm, Type KW E	300 - 750 mm	2109

### KW Washing jets E



These washing jets can be fitted on Exalto pantograph arms PU, P10 and P12. With most washing jets the angle under which the water is sprayed on the window, can be adjusted. The 2110.cpl washing jets are also suitable for the linked wiper system type KW.

Description	Art.Code
Washing jet, 6 nozzles for MD1 PU arms	2110.cpl

## KW Wiper blades

All Exalto wiper blades are manufactured of stainless steel 316. To prevent reflection, a black coating is applied on all metal parts. The Heavy Duty blades have a lower profile than the standard blades and a reduced lift. This makes them perfect for applications where a little more pressure is required. The Heavy Duty blades are also more screen friendly due to the use of plastic lower bridges. In case of damaged rubber, these plastic bridges will not damage the screen. The Exalto H.D. blades are also available in a polished version. So you can choose the look that fits your vessel. Keep in mind that every motor has a maximum blade length when choosing your wiperblade.

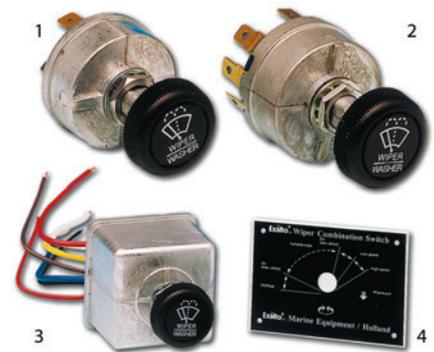
Position	Blade length	Art.Code
1	250 mm	2170
1	300 mm	2171
1	350 mm	2172
1	400 mm	2173
1	450 mm	2174
1	500 mm	2175
1	550 mm	2176
1	600 mm	2177
1	650 mm	2178
1	700 mm	2179
1	750 mm	2195
2	610 mm	216120
2	650 mm	216121
2	700 mm	216122
2	750 mm	216123
3	610 mm	216120P
3	650 mm	216121P
3	700 mm	216122P
3	750 mm	216123P



## KW Wiper controls Retro

These switches offer two speeds and self-parking controls with separate connections for pumps or solenoids.

Position	Description	Voltage	Art.Code
1	2-speed wiper control for 1 wiper	12/24 V	2134
2	2-speed wiper control for 2 wipers	12/24 V	2135
3	2-speed, intermittend wiper control	12 V	2158
3	2-speed, intermittend wiper control	24 V	2159
4	Panel for 2-speed intermittend switch		2159.01





### KW Wiper controls CT41 & CT42

These switches are micro-controller based "intelligent" switches for operating one or two Exalto H.D. wiper motors. They provide all functions for a proper window cleaning. The switches consist of a touch pad with a 45 cm connection cable. The switches offer two continuous speeds, three step intermittent, perfect self-parking due to dynamic break and a wipe/wash program. LEDs on the switch indicate the selected mode, speed and intermittent setting. The wiper switches operate with a power supply of 10 - 30V.

Installation dimensions H x W x D  
: 36,5 x 21 x 90 mm

Description	Voltage	Art.Code
Wiper control for 1 wiper	12/24 V	210341J
Wiper control for HD1 250, 255 & HD2 280	12/24 V	210342J

## LD Wiper motors 215BD

This self parking Heavy Duty wiper is suitable for either bulkhead or through glass mounting. The 215BD is a pendulum or single spindle unit. It can easily be converted to a pantograph system with the external pantograph plate that comes with the pantograph wiper arm. The wiper motor unit is fully enclosed in a waterproof housing. The housing is rated at IP66, so the 215BD is suitable for both open and covered boats.

Max. bladlength : 600 mm  
Ø driveshaft : 16 mm

Voltage	Wall thickness	Shaft length	Torque	Power	Art.Code
12 V	0-15 mm	25 mm	15 Nm	15 W	2151225IER
12 V	15-40 mm	50 mm	15 Nm	15 W	2151250IER
12 V	40-65 mm	75 mm	15 Nm	15 W	2151275IER
24 V	0-15 mm	25 mm	15 Nm	15 W	2152425IER
24 V	15-40 mm	50 mm	15 Nm	15 W	2152450IER
24 V	40-65 mm	75 mm	15 Nm	15 W	2152475IER



## LD Wiper arms SS 304

Position	Wiper arm length	Description	Nr. of springs	Max. bladlength	Art.Code
1	330-450 mm	Single arm adjustable	1	280-600 mm	21581118
1	450-600 mm	Single arm adjustable	1	280-600 mm	21581124
2	330-450 mm	Single arm adjustable + adjustable clip	1	280-600 mm	21581218
2	330-450 mm	Single arm adjustable, polished + adjustable clip	1	280-600 mm	21581218P
2	450-600 mm	Single arm adjustable, adjustable clip	1	280-600 mm	21581224
2	450-600 mm	Single arm adjustable, polished + adjustable clip	1	280-600 mm	21581224P
3	330-450 mm	Pantograph arm adjustable	1	280-600 mm	21581318
3	330-450 mm	Pantograph arm adjustable, polished	1	280-600 mm	21581318P
3	450-600 mm	Pantograph arm adjustable	1	280-600 mm	21581324
3	450-600 mm	Pantograph arm adjustable, polished	1	280-600 mm	21581324P



## LD Washing jets for SS 304 arms

Washingjet with 4 nozzles for LD wiper motors 215BD. To install the washingjet on the arm you also need the clip (2154.clip). Suitable for all LD wiperarms only.

Position	Art.Code
2	21000.326
1	2154.CLIP



### LD Wiper blades SS 304



Blade length	Art.Code
280 mm	21582011
300 mm	21582012
350 mm	21582014
400 mm	21582016
450 mm	21582018
500 mm	21582020
550 mm	21582022
600 mm	21582024

### LD Wiper arms SS 316



Position	Wiper arm length	Description	Nr. of springs	Max. bladelength	Art.Code
1	270-640 mm	Single arm black SS 316	1	280-600 mm	2107
2	270-640 mm	Pantograph arm black SS 316	1	280-600 mm	2108
-		Idler shaft Kit for SS 316 LD pantograph arm 2108		280-600 mm	2112
-		Outside shaft cover plate for use with kit 2112		280-600 mm	2113

### LD Washing jets for SS 316 arms

Washingjet with 4 nozzles for LD wiper motors 215BD. To install the washingjet on the arm you also need the clip (2154.clip). Suitable for all LD wiperarms only.



Position	Description	Art.Code
1		2154.CLIP
2		21000.326
3	Washing jet, 2 nozzles MD1 PU	2184
4	Washing jet, 6 nozzles for MD1 PU arms	2110.cpl

## LD Wiper blades SS 316

All Exalto wiper blades are manufactured of stainless steel 316. To prevent reflection, a black coating is applied on all metal parts. The Heavy Duty blades have a lower profile than the standard blades and a reduced lift. This makes them perfect for applications where a little more pressure is required. The Heavy Duty blades are also more screen friendly due to the use of plastic lower bridges. In case of damaged rubber, these plastic bridges will not damage the screen. The Exalto H.D. blades are also available in a polished version. So you can choose the look that fits your vessel. Keep in mind that every motor has a maximum blade length when choosing your wiperblade.



Description	Blade length	Art.Code
Exalto wiper blade 250 mm	250 mm	2170
Exalto wiper blade 300 mm	300 mm	2171
Exalto wiper blade 350 mm	350 mm	2172
Exalto wiper blade 400 mm	400 mm	2173
Exalto wiper blade 450 mm	450 mm	2174
Exalto wiper blade 500 mm	500 mm	2175
Exalto wiper blade 550 mm	550 mm	2176
Exalto wiper blade 600 mm	600 mm	2177

## LD Wiper controls for 1 wiper

To complete your wiper system, we advise you to use our switch for LD wiper motors which offers 2-speeds and self parking.

Description	Voltage	Art.Code
Wiper control LD 215BD	12/24 V	70906425.SET



## LD Wiper controls for max. 4 wipers

Dual voltage electronic wiper control for up to four L.D. wipers. Wipers can be switched in two groups: group I and group II. These groups can be controlled individually but also together. The wiper control with flush mount panel offers one continuous speed, selfparking, three step intermittent wipe and a wipe / wash feature (for the parts see chapter H.D. Wipers). In the intermittent modes, all wipers run synchronised.

Description	Voltage	Art.Code
Wiper control LD 215BD max. 4 wipers	12/24 V	210604

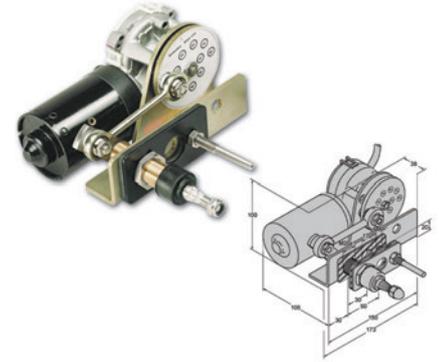


## MD1 Wiper motors 223BD

Self-parking Exalto H.D. wiper for bulkhead mounting. This wiper is available in 12V and 24V and for several bulkhead thicknesses. With a torque of 23 Nm these wipers can drive arms up to 750 mm in length in combination with blades up to 800 mm in length. The 223BD.o is a pantograph wiper system. For these wipers a cover in black or white is available to protect the motor and keep all moving parts out of reach.

Max. bladlength : 750 mm  
 Ø driveshaft : 20 mm  
 Ø Idler spindle : 8 mm

Voltage	Wall thickness	Torque	Power	Art.Code
12 V	20 mm	23 Nm	36 W	2165.30
12 V	35 mm	23 Nm	36 W	2165.32
12 V	55 mm	23 Nm	36 W	2165.35
12 V	75 mm	23 Nm	36 W	2165.40
24 V	20 mm	23 Nm	36 W	2166.30
24 V	35 mm	23 Nm	36 W	2166.32
24 V	55 mm	23 Nm	36 W	2166.35
24 V	75 mm	23 Nm	36 W	2166.40



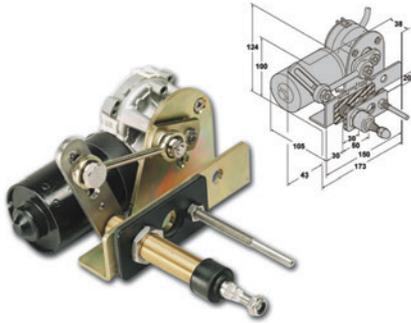
## MD1 Wiper motors 223BDS

Self-parking Exalto H.D. wiper for bulkhead mounting. This wiper is available in 12V and 24V and for several bulkhead thicknesses. With a torque of 23 Nm these wipers can drive arms up to 750 mm in length in combination with blades up to 800 mm in length. The 223BDS has only one shaft which makes this a pendulum wiper system. For these wipers a cover in black or white is available to protect the motor and keep all moving parts out of reach.

Max. bladlength : 750 mm  
 Ø driveshaft : 20 mm

Voltage	Wall thickness	Torque	Power	Art.Code
12 V	20 mm	23 Nm	36 W	2165.30s
12 V	35 mm	23 Nm	36 W	2165.32s
12 V	55 mm	23 Nm	36 W	2165.35s
12 V	75 mm	23 Nm	36 W	2165.40s
24 V	20 mm	23 Nm	36 W	2166.30s
24 V	35 mm	23 Nm	36 W	2166.32s
24 V	55 mm	23 Nm	36 W	2166.35s
24 V	75 mm	23 Nm	36 W	2166.40s



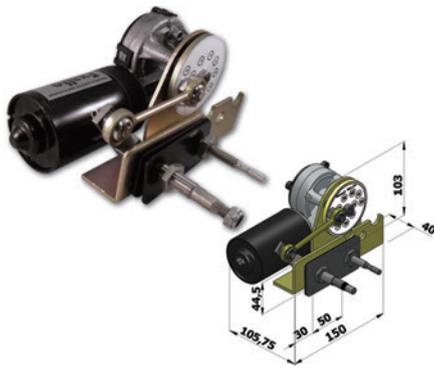


### MD1 Wiper motors 223BS

Self-parking Exalto H.D. wiper for bulkhead mounting. This wiper is available in 12V and 24V and for several bulkhead thicknesses. With a torque of 23 Nm these wipers can drive arms up to 750 mm in length in combination with blades up to 800 mm in length. The 223BS differs from the 223BD and 223BDS by means of the adjustability of the wiping arc. Where the 223BD and BDS can adjust the wiping angle with 5° increments, the 223BS is infinitely variable.

Max. bladlength : 750 mm  
 Ø driveshaft : 20 mm  
 Ø Idler spindle : 8 mm

Voltage	Wall thickness	Torque	Power	Art.Code
12 V	20 mm	23 Nm	36 W	2167.30
12 V	35 mm	23 Nm	36 W	2167.32
12 V	55 mm	23 Nm	36 W	2167.35
12 V	75 mm	23 Nm	36 W	2167.40
24 V	20 mm	23 Nm	36 W	2168.30
24 V	35 mm	23 Nm	36 W	2168.32
24 V	55 mm	23 Nm	36 W	2168.35
24 V	75 mm	23 Nm	36 W	2168.40
12/24 V	xx mm	23 Nm	36 W	2181.04



### MD1 Wiper motors 223KG

This self-parking Exalto H.D. wiper is suitable for glass mounting. All moving parts of the 223KG are protected by an aluminium housing. For the 223KG a white or black cover is available. These motors can handle arms up to 450 mm in length and blades up to 500 mm. As this wiper is to be fitted in the glass and has a different drive system from the other wipers, larger arms and blades are not recommended. The wipers have a standard insulated earth return. The wiping angle is adjustable from 40° to 90°, in 5° increments. The motors have insulated earth return standard as well. The 2235KG and 223KG are only available for a glass thickness of 17 mm or less.

Max. bladlength : 500 mm  
 Ø driveshaft : 11 mm  
 Ø Idler spindle : 8 mm

Voltage	Wall thickness	Torque	Power	Art.Code
12 V	17 mm	23 Nm	36 W	2125
24 V	17 mm	23 Nm	36 W	2126

### MD1 Wiper motor covers 223KG



Model / type	Art.Code
MD1 - 223-series cover wit	2101
MD1 - 223-series cover zwart	2115

## MD1 Wiper motors 232BD

Self-parking Exalto H.D. wiper for bulkhead mounting. This wiper is available in 12V and 24V and for several bulkhead thicknesses. All moving parts are protected by an aluminium housing. With a torque of 32 Nm, this wiper can handle arms up to 750 mm in length and blades up to 800 mm. The motor has an insulated earth return as a standard. The wiping angle is adjustable from 40° to 90°, in 5° increments. This wiper is the alternative for the 235KK-HD

Max. bladlength : 800 mm  
 Ø driveshaft : 20 mm  
 Ø Idler spindle : 8 mm

Voltage	Wall thickness	Torque	Power	Art.Code
12 V	20 mm	32 Nm	40 W	2157.30
12 V	35 mm	32 Nm	40 W	2157.32
12 V	55 mm	32 Nm	40 W	2157.35
12 V	75 mm	32 Nm	40 W	2157.40
12 V	100 mm	32 Nm	40 W	2157.45
12 V	125 mm	32 Nm	40 W	2157.50
24 V	20 mm	32 Nm	40 W	2158.30
24 V	35 mm	32 Nm	40 W	2158.32
24 V	55 mm	32 Nm	40 W	2158.35
24 V	75 mm	32 Nm	40 W	2158.40
24 V	100 mm	32 Nm	40 W	2158.45
24 V	125 mm	32 Nm	40 W	2158.50
12/24 V	xx mm			2109.01

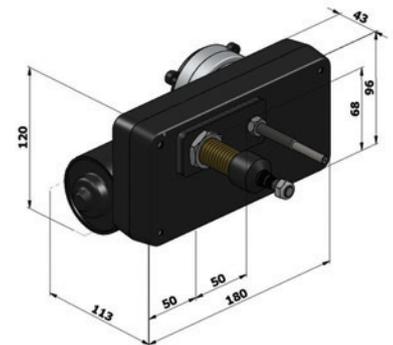
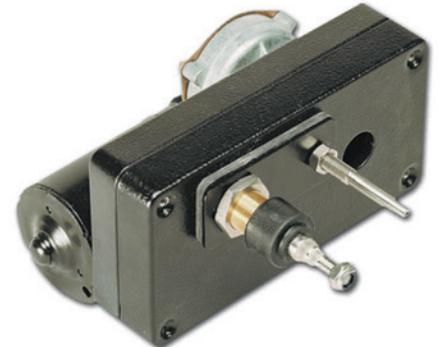


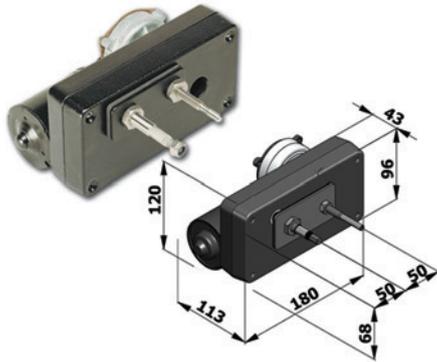
## MD1 Wiper motors 233BD

This self-parking Exalto H.D. wiper is suitable for bulkhead mounting. This wiper is available in 12 and 24V. All moving parts are protected by an aluminium housing. With a torque of 23 Nm, this wiper can handle arms up to 750 mm in length and blades up to 800 mm. The motor has an insulated earth return as standard. The wiping angle is adjustable from 40° up to 90°, in 5° increments.

Max. bladlength : 750 mm  
 Ø driveshaft : 20 mm  
 Ø Idler spindle : 8 mm

Voltage	Wall thickness	Torque	Power	Art.Code
12 V	20 mm	23 Nm	36 W	2151.30
12 V	35 mm	23 Nm	36 W	2151.32
12 V	55 mm	23 Nm	36 W	2151.35
12 V	75 mm	23 Nm	36 W	2151.40
12 V	100 mm	23 Nm	36 W	2151.45
12 V	125 mm	23 Nm	36 W	2151.50
24 V	20 mm	23 Nm	36 W	2152.30
24 V	35 mm	23 Nm	36 W	2152.32
24 V	55 mm	23 Nm	36 W	2152.35
24 V	75 mm	23 Nm	36 W	2152.40
24 V	100 mm	23 Nm	36 W	2152.45
24 V	125 mm	23 Nm	36 W	2152.50
12/24 V	xx mm			2109.01





### MD1 Wiper motors 235KG

This self-parking Exalto H.D. wiper is suitable for glass mounting. All moving parts of the 235KG are protected by an aluminium housing. For the 223KG a white or black cover is available. These motors can handle arms up to 450 mm in length and blades up to 500 mm. As this wiper is to be fitted in the glass and has a different drive system from the other wipers, larger arms and blades are not recommended. The wipers have a standard insulated earth return. The wiping angle is adjustable from 40° to 90°, in 5° increments. The motors have insulated earth return standard as well. The 235KG and 223KG are only available for a glass thickness of 17 mm or less.

Max. bladlength : 500 mm  
 Ø driveshaft : 11 mm  
 Ø Idler spindle : 8 mm

Voltage	Wall thickness	Torque	Power	Art.Code
12 V	17 mm	15 Nm	36 W	2123
24 V	17 mm	15 Nm	36 W	2124



Art.Code
212430.25
212430.50

### MD1 Pendulum wiper arms for 223BDS

The E-arms are specially designed for the Exalto KW linked and single shaft (e.g. 223BDS) wiper systems. They are made of stainless steel and have a black coating. These pendulum arms have a stepless swivelling blade clip.

Wiper arm length	Description	Max. bladlength	Art.Code
350-450 mm	Single adjustable arm, Type KW E	300 - 750 mm	2103
500-600 mm	Single adjustable arm, Type KW E	300 - 750 mm	2106
650-750 mm	Single adjustable arm, Type KW E	300 - 750 mm	2109

## MD1 Wiper arms PU

The Exalto PU arms are suitable for all H.D. wiper systems for small and medium sized windows up to 1100 mm in height. This means that they can be installed on all MD1 & MD2-series wiper motors. All PU arms have a fold back feature (see picture), so they can be placed in fixed position away from the windshield. This makes it easier to mount the arms, replace the blades or to clean the window. As a standard the PU arms also have adjustable spring pressure to regulate the pressure of the blade on the window steplessly. The position of the blade in relation to the window configuration can be adjusted by the swivelling blade clip. All Exalto wiper arms are made of stainless steel 316 and have bronze heads. A black coating is applied on all metal parts as a standard to prevent reflection. The polished arms are new, so you can choose which arm suits the look of your vessel most. The wiper arms are adjustable in length.



Position	Wiper arm length	Description	Length	Nr. of springs	Max. bladlength	Art.Code
1	270-450 mm	Exalto MD1 arm type PU		1	300 - 800 mm	2133
3	270-450 mm			2	300 - 800 mm	2133.01
2		Tubing retainer strip 190 mm	190 mm			2133.03
1	500-600 mm	Exalto MD1 arm type PU		1	300 - 800 mm	2136
3	500-600 mm			2	300 - 800 mm	2136.01
2		Tubing retainer strip 430 mm	430 mm			2136.03
1	650-750 mm	Exalto MD1 arm type PU		1	300 - 800 mm	2139
4	650-750 mm	Exalto MD1 polished arm type PU		1	300 - 800 mm	2139.P
3	650-750 mm			2	300 - 800 mm	2139.01
2		Tubing retainer strip 480 mm	480 mm			2139.03

## MD1 Washing jets PU

These washing jets can be fitted on Exalto pantograph arms PU, P10 and P12. With most washing jets the angle under which the water is sprayed on the window, can be adjusted

Position	Description	Art.Code
1	Washing jet, 2 nozzles MD1 PU	2184
2	Washing jet, 6 nozzles for MD1 PU arms	2110.cpl





### MD1 Wiper blades SS 316

All Exalto wiper blades are manufactured of stainless steel 316. To prevent reflection, a black coating is applied on all metal parts. The Heavy Duty blades have a lower profile than the standard blades and a reduced lift. This makes them perfect for applications where a little more pressure is required. The Heavy Duty blades are also more screen friendly due to the use of plastic lower bridges. In case of damaged rubber, these plastic bridges will not damage the screen. The Exalto H.D. blades are also available in a polished version. So you can choose the look that fits your vessel. Keep in mind that every motor has a maximum blade length when choosing your wiperblade.

Position	Blade length	Art.Code
1	250 mm	2170
1	300 mm	2171
1	350 mm	2172
1	400 mm	2173
1	450 mm	2174
1	500 mm	2175
1	550 mm	2176
1	600 mm	2177
1	650 mm	2178
1	700 mm	2179
1	750 mm	2195
1	800 mm	2196
2	610 mm	216120
2	650 mm	216121
2	700 mm	216122
2	750 mm	216123
2	800 mm	216124
3	610 mm	216120P
3	650 mm	216121P
3	700 mm	216122P
3	750 mm	216123P
3	800 mm	216124P



### MD1 Wiper controls Retro

These switches offer two speeds and self-parking controls with separate connections for pumps or solenoids.

Position	Description	Voltage	Art.Code
1	2-speed wiper control for 1 wiper	12/24 V	2134
2	2-speed wiper control for 2 wipers	12/24 V	2135
3	2-speed, intermittend wiper control	12 V	2158
3	2-speed, intermittend wiper control	24 V	2159
4	Panel for 2-speed intermittend switch		2159.01

## MD1 Wiper controls CT2N

Electronic control for up to two, three, four or five Exalto wipers. Wipers can be switched individually or in any combination. The complete wiper control consists of one flush mount panel, one junction and a 4 m connection cable to connect the panel to the junction box. The wiper control offers two continuous speeds, three step intermittent wipe and a wipe/wash feature. In the low continuous mode and in the intermittent mode, all wipers run synchronised in all speeds and are self-parking. LED indicators on the panel indicate the selected speed setting.

Description	Voltage	L x W	Art.Code
Exalto Wiper Control for max. 2 wipers	12/24 V	100 x 100 mm	21021224
Exalto Wiper Control for max. 3 wipers	12/24 V	100 x 100 mm	21031224
Exalto Wiper Control for max. 4 wipers	12/24 V	100 x 100 mm	21041224
Exalto Wiper Control for max. 5 wipers	12/24 V	100 x 100 mm	21051224



## MD1 Wiper controls CT2N extra panel

The Exalto Electronic wiper control can easily turn into a dual control system by adding an extra panel. A 5m cable is included.

Description	Voltage	Art.Code
Extra control panel for 2 wipers	12/24 V	21021224.P
Extra control panel for 3 wipers	12/24 V	21031224.P
Extra control panel for 4 wipers	12/24 V	21041224.P
Extra control panel for 5 wipers	12/24 V	21051224.P



## MD1 Wiper controls CT3EX

Electronic multivolt wiper control for up to three Exalto H.D. wipers. Wipers can be switched individually or in any combination. LED's indicate each setting. The complete wiper control consists of one flush mount panel of 72 x 72 mm and one junction box. The wiper control offers two continuous speeds, a three-step intermittent wipe and a wipe/wash feature. All wipers are self-parking. The wipers run synchronised in all settings. To ease the mounting of the panel, we offer two different bulkhead mounts: a low and a high version. These mounts should be ordered separately

L x W x H : 72 x 72 x 72 mm

Position	Description	Voltage	L x W x H	Art.Code
1	Exalto wiper control CT3EX for max. 3 wipers	12/24 V	72 x 72 x 72 mm	216324
-		12/24 V	72 x 72 x 72 mm	216324.DCP
3	Low rim for wiper control CT3EX		88 x 88 x 3 mm	216883
2	High rim for wiper control CT3EX		88 x 88 x 6 mm	216886



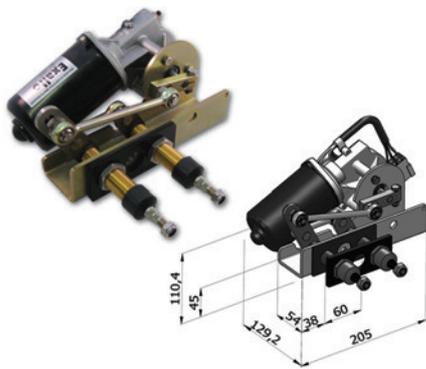


### MD1 Wiper controls CT41 & CT42

These switches are micro-controller based "intelligent" switches for operating one or two Exalto H.D. wiper motors. They provide all functions for a proper window cleaning. The switches consist of a touch pad with a 45 cm connection cable. The switches offer two continuous speeds, three step intermittent, perfect self-parking due to dynamic break and a wipe/wash program. LEDs on the switch indicate the selected mode, speed and intermittent setting. The wiper switches operate with a power supply of 10 - 30V.

L x W x H : 50 x 25 x mm  
 Installation dimensions H x W x D : 36,5 x 21 x 90 mm

Description	Voltage	L x W x H	Art.Code
Wiper control for 1 wiper	12/24 V	50 x 25 x mm	210341
Wiper control for 2 wipers	12/24 V	50 x 25 x mm	210342
			210342S



### MD2 Wiper motors 240BS

Self-parking wiper motor for bulkhead mounting. The 240BS is a powerful wiper with dual driven shafts. It can clean windows up to a height of 1600 mm. With a torque of 40 Nm, this wiper motor powers arms and blades of 900mm in length. This motor has insulated earth return as a standard. The wiping angle of this wiper motor is freely adjustable from 40° to 90°.

Max. bladlength : 900 mm  
 Ø driveshaft : 20 mm  
 Ø Idler spindle : 20 mm

Voltage	Wall thickness	Torque	Power	Art.Code
12 V	30 mm	40 Nm	36 W	211240.30
24 V	30 mm	40 Nm	48 W	212440.30
12/24 V	xx mm	40 Nm	36 / 48 W	2181.05

### MD2 Wiper arms PF

The PF arms are specially designed for wiper motor 240BS. Exalto PF arms are available for standard blades to 800 mm in length, or for H.D blades to 900mm in length. The arm is manufactured from stainless steel 316 and has brass, seawater resistant heads. The PF arms are fixed length and fixed spring pressure as a standard. The PF arm as standard has a swiveling blade clip to allow easy adjustment of the position of the blade in relation to the window configuration. The arm has a black coating to prevent reflection as a standard. However, these arms with fixed springs are also available in high polished stainless steel. The PF arms with fixed springs can be folded back, which allows it easier to mount the arms, change the blades or clean the window.



Description	Nr. of springs	Max. bladlength	Wiper arm length	Art.Code
Black coated arm with fixed springs	2	850 - 900 mm	800 mm	2140.800.B
Polished arm with fixed springs	2	850 - 900 mm	800 mm	2140.800.BP
Black coated arm with fixed springs	2	300 - 800 mm	800 mm	2140.800.S
Polished arm with fixed springs	2	300 - 800 mm	800 mm	2140.800.SP
Black coated arm with fixed springs	2	850 - 900 mm	850 mm	2140.850.B
Polished arm with fixed springs	2	850 - 900 mm	850 mm	2140.850.BP
Black coated arm with fixed springs	2	300 - 800 mm	850 mm	2140.850.S
Polished arm with fixed springs	2	300 - 800 mm	850 mm	2140.850.SP
Black coated arm with fixed springs	2	850 - 900 mm	900 mm	2140.900.B
Polished arm with fixed springs	2	850 - 900 mm	900 mm	2140.900.BP
Black coated arm with fixed springs	2	300 - 800 mm	900 mm	2140.900.S
Polished arm with fixed springs	2	300 - 800 mm	900 mm	2140.900.SP

## MD2 Washing jets PF2142.S-series

These washing jets can be fitted on Exalto pantograph arms PF, P10 and P12. With most washing jets the angle under which the water is sprayed on the window, can be adjusted.

Position	Description	Art.Code
1	Washing jet, 6 nozzles for HD1 P10 en HD2 P12	2111.cpl
2	Washing jet, 4 nozzles for HD1 P10 & HD2 P12 right	2185
3	Washing jet 4 nozzles for HD1 P10 & HD2 P12	2185L



## MD2 Wiper blades SS 316

All Exalto wiper blades are manufactured of stainless steel 316. To prevent reflection, a black coating is applied on all metal parts. The Heavy Duty blades have a lower profile than the standard blades and a reduced lift. This makes them perfect for applications where a little more pressure is required. The Heavy Duty blades are also more screen friendly due to the use of plastic lower bridges. In case of damaged rubber, these plastic bridges will not damage the screen. The Exalto H.D. blades are also available in a polished version. So you can choose the look that fits your vessel. Keep in mind that every motor has a maximum blade length when choosing your wiperblade.

Position	Blade length	Art.Code
1	250 mm	2170
1	300 mm	2171
1	350 mm	2172
1	400 mm	2173
1	450 mm	2174
1	500 mm	2175
1	550 mm	2176
1	600 mm	2177
1	650 mm	2178
1	700 mm	2179
1	750 mm	2195
1	800 mm	2196
2	610 mm	216120
2	650 mm	216121
2	700 mm	216122
2	750 mm	216123
2	800 mm	216124
2	850 mm	216125
2	900 mm	216126
3	610 mm	216120P
3	650 mm	216121P
3	700 mm	216122P
3	750 mm	216123P
3	800 mm	216124P
3	850 mm	216125P
3	900 mm	216126P





### MD2 Wiper controls Retro

These switches offer two speeds and self-parking controls with separate connections for pumps or solenoids.

Position	Description	Voltage	Art.Code
1	2-speed wiper control for 1 wiper	12/24 V	2134
2	2-speed wiper control for 2 wipers	12/24 V	2135
3	2-speed, intermittend wiper control	12 V	2158
3	2-speed, intermittend wiper control	24 V	2159
4	Panel for 2-speed intermittend switch		2159.01

### MD2 Wiper controls CT2N

Electronic control for up to two, three, four or five Exalto wipers. Wipers can be switched individually or in any combination. The complete wiper control consists of one flush mount panel, one junction and a 4 m connection cable to connect the panel to the junction box. The wiper control offers two continuous speeds, three step intermittent wipe and a wipe/wash feature. In the low continuous mode and in the intermittent mode, all wipers run synchronised in all speeds and are self-parking. LED indicators on the panel indicate the selected speed setting.



Description	Voltage	L x W	Art.Code
Exalto Wiper Control for max. 2 wipers	12/24 V	100 x 100 mm	21021224
Exalto Wiper Control for max. 3 wipers	12/24 V	100 x 100 mm	21031224
Exalto Wiper Control for max. 4 wipers	12/24 V	100 x 100 mm	21041224
Exalto Wiper Control for max. 5 wipers	12/24 V	100 x 100 mm	21051224

### MD2 Wiper controls CT2N extra panel

The Exalto Electronic wiper control can easily turn into a dual control system by adding an extra panel. A 5m cable is included.



Description	Voltage	L x W	Art.Code
Extra control panel for 2 wipers	12/24 V		21021224.P
Extra control panel for 3 wipers	12/24 V		21031224.P
Extra control panel for 4 wipers	12/24 V	50 x 25 mm	21041224.P
Extra control panel for 5 wipers	12/24 V	50 x 25 mm	21051224.P

### MD2 Wiper controls CT41 & CT42

These switches are micro-controller based "intelligent" switches for operating one or two Exalto H.D. wiper motors. They provide all functions for a proper window cleaning. The switches consist of a touch pad with a 45 cm connection cable. The switches offer two continuous speeds, three step intermittent, perfect self-parking due to dynamic break and a wipe/wash program. LEDs on the switch indicate the selected mode, speed and intermittent setting. The wiper switches operate with a power supply of 10 - 30V.

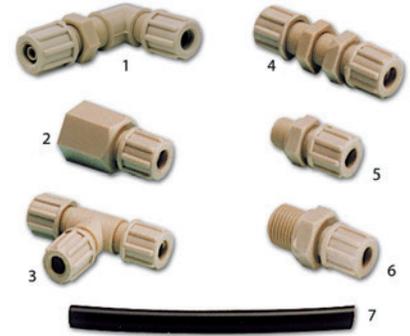
Installation dimensions H x W x D  
: 36,5 x 21 x 90 mm



Description	Voltage	Art.Code
Wiper control for 1 wiper	12/24 V	210341J
Wiper control for HD1 250, 255 & HD2 280	12/24 V	210342J

**Fittings for low pressure systems**

Position	Description	B.S.P. x Ø mm	Art.Code
1	90° bulkhead connector		2153
2	End coupling female	1/4 B.S.P. x 6 inch x mm	2120
3	T-coupling		2156
4	Straight coupling		2150
5	Straight coupling	1/8 B.S.P. x 6 inch x mm	2116
6	Straight coupling	1/4 B.S.P. x 6 inch x mm	2117
7	Flexible rubber tubing black		2154.N
-	Non-return valve for rubber hose		2121
-	Plasticized nylon tubing (grey)		2157.N



**Fittings for high pressure systems**

Position	Description	B.S.P. x Ø mm	Art.Code
1	Elbow		2129
2	Bulkhead fitting		2130
3	T-coupling		2166
4	Elbow connector		2131
5	Straight coupling	1/8 B.S.P. x 6 inch x mm	2118
6	Straight coupling	1/4 B.S.P. x 6 inch x mm	2119
8	High pressure PVC bulkhead fitting for washing jet		2180
9	High pressure SS 316 bulkhead fitting for washing jet		2181
-	Plasticized nylon tubing (grey)		2157.N



**Bulkhead mount washing jets**

These washing jets can be mounted on the deck or skin of the vessel. With most washing jets the angle under which the water is sprayed on the window, can be adjusted. These washing jets are also suitable for the linked wiper system type KW.

Position	Description	Voltage	Art.Code
-	Fixed washing jet (bulkhead)		2161
1	Heated washing jet	24 V	2148
1	Heated washing jet	230 V	2149





### Arm mount type washing jets

These washing jets can be fitted on Exalto pantograph arms PU, P10 and P12. With most washing jets the angle under which the water is sprayed on the window, can be adjusted. The 2110.cpl washing jets are also suitable for the linked wiper system type KW.

Position	Description	Art.Code
2	Washing jet, 6 nozzles for MD1 PU arms	2110.cpl
5	Washing jet, 6 nozzles for HD1 P10 en HD2 P12	2111.cpl
1	Washing jet, 2 nozzles MD1 PU	2184
3	Washing jet, 4 nozzles for HD1 P10 & HD2 P12 right	2185
4	Washing jet 4 nozzles for HD1 P10 & HD2 P12	2185L



### Reservoirs with pump

For your wash system you can use the water from your drinking water system. You only need a solenoid valve. As soon as the valve gets a signal via the wiper control, it will open to provide water for the wipe/wash program. If you don't have a pressurized drinking water system, you can use one of the reservoirs.

Position	Description	Voltage	Art.Code
1	Reservoir 20 l. with 3 pumps	24 V	2192
1	Reservoir 8 l. with pump	12 V	2193
1	Reservoir 8 l. with pump	24 V	2194
4	Reservoir 8 l. with 3 pumps	12 V	PT0701044
4	Reservoir 8 l. with 3 pumps	24 V	PT0701045



### Solenoid valves

For your wash system you can use the water from your drinking water system. You only need a solenoid valve. As soon as the valve gets a signal via the wiper control, it will open to provide water for the wipe/wash program. If you don't have a pressurized drinking water system, you can use one of the reservoirs.

Position	Description	Voltage	Connections B.S.P	Art.Code
1	Solenoid valve	12 V	1/8	2137
-	Solenoid valve	24 V	1/8	2138
2	Solenoid valve	12 V	1/4	2142
-	Solenoid valve	24 V	1/4	2143