

MX-L 335 compact

MECHATRONIC LONG STROKE GRIPPER

Mechatronic drive
Gripping force 2.500 N - 27.000 N
Position sensing and monitoring of the gripping force
Pre-positioning and sensitive gripping force adjustment



MX-L 335 compact

Mechatronic gripper

Mechatronic long stroke gripper

■ 2 finger parallel



Application/customer benefits

- Gripping force independent of gripping speed and stroke
- Mechatronic drive with gripping force retention
- Gripping force 2.500 N - 27.000 N
- Position sensing and monitoring of the gripping force
- OD clamping
- Pre-positioning and sensitive gripping force adjustment

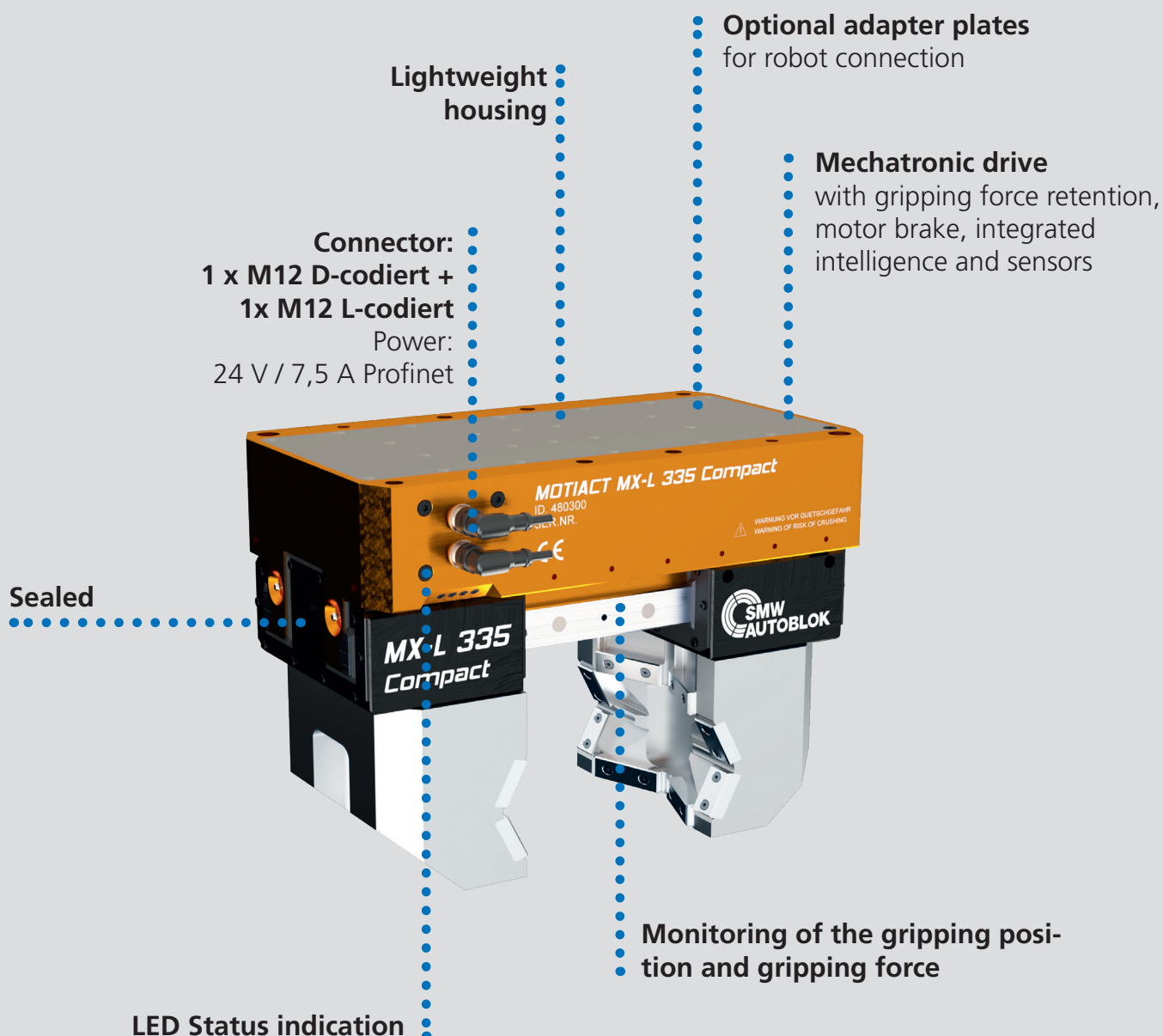
Technical features

- Aluminum housing
- Sealed/Protection class: IP67
- Repeatability: 0,02 mm
- Recommended workpiece weight up to 135 kg
- Power supply: 24 V / 7,5 A
- Communication interface: Profinet
- Possibility of safe motion shutdown by means of STO Signals (optional)

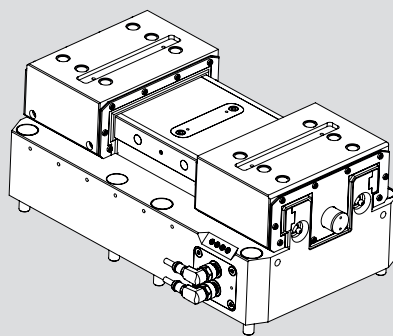
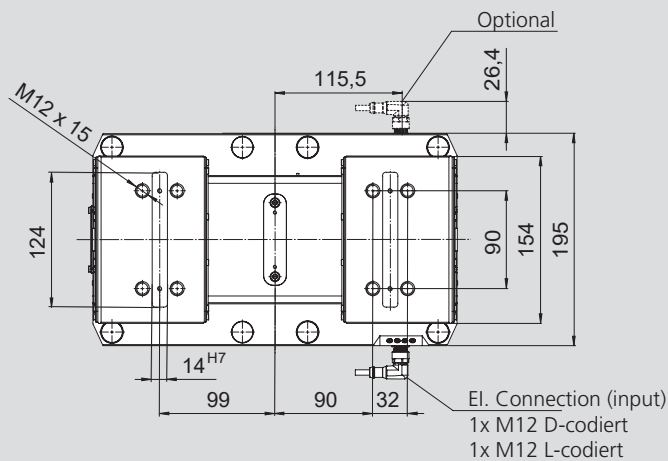
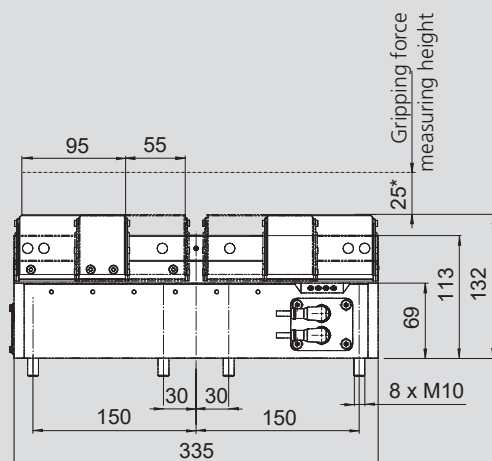
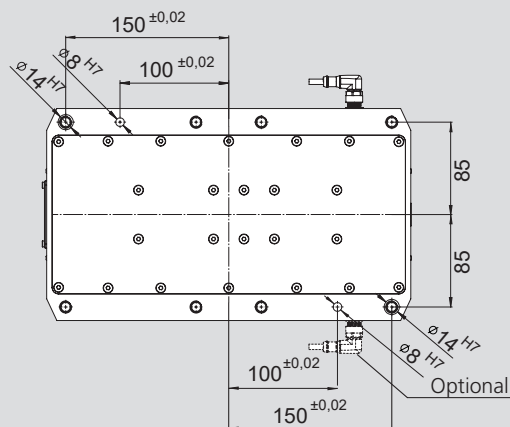
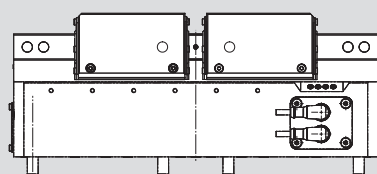
Standard equipment

Gripper (without gripper fingers, centering sleeves and mounting bolts)

MX-L 335 compact



Dimension and technical data

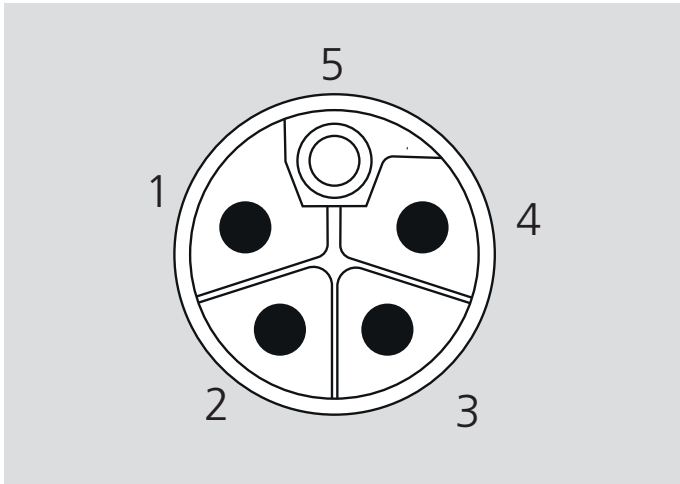


Subject to technical changes.
For more detailed information please ask our customer service.

*Gripping force is the arithmetic sum of the individual forces applied on each jaw at the specified distance.

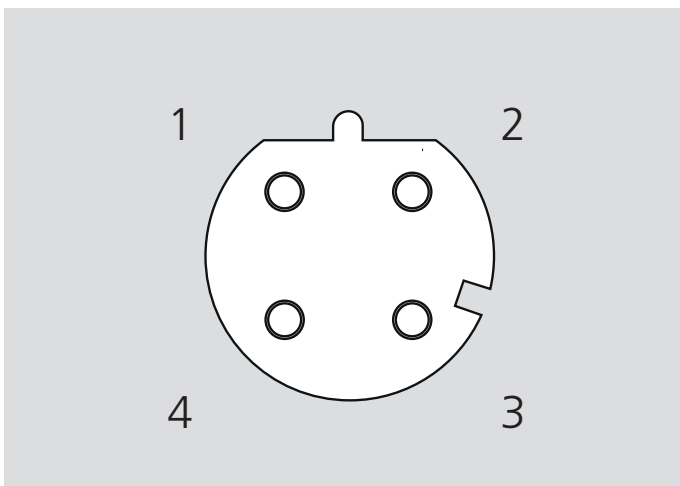
Type		MX-L 335 compact	
Id. No.		PROFINET	
Id. No.		480300	
Gripping force (steplessly adjustable)	N	2.500 - 27.000	
Stroke per jaw	mm	55	
Repeatability	mm	0,02	
Weight	kg	32	
Recommended workpiece weight	kg	135	
Travel speed per jaw	mm/s	5	
Voltage (actuators)	V	24/48	
Max. power consumption (actuators)	A	7,5	
Voltage (sensors)	V	24 V ± 10%	
Max. power consumption (sensors)	A	0.5 A	
Communication interface		Profinet	
STO signals (option)		2	

Pin assignment M12 x 1 - 5 Pin L-coded Male



Power Interface		
Pin	Function	Description
1	US+	24V Power supply logic
2	UA+	24V/ 48V Power supply actuator
3	GND US-	Ground power supply logic
4	GND UA-	Ground power supply actuator
5	nc	-

Pin assignment M12 x 1 - 4 Pin D-coded Female



Ethernet/Profinet Interface		
Pin	Function	Description
1	Tx+	Ethernet/Profinet Tx+
2	Rx+	Ethernet/Profinet Rx+
3	Tx-	Ethernet/Profinet Tx-
4	Rx-	Ethernet/Profinet Rx-

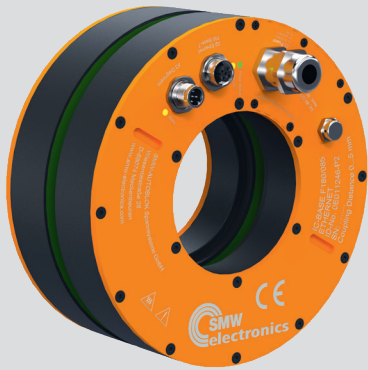
Notes

F180 Ethernet

Axial coupler

Inductive Coupling System

■ Contact free transmission of energy and signals



Application/customer benefits

- Contact free transmission of energy and signals between moving / rotating and stationary components
- Application examples: Packaging machines, special machines, automation, machine tools, printing machines, robot applications (EOAT)
- Substitution of slip ring / connector
- Dynamic Pairing
- Wear and maintenance free
- Protective functions: Temperature monitoring, foreign object detection
- Status LED with good visibility

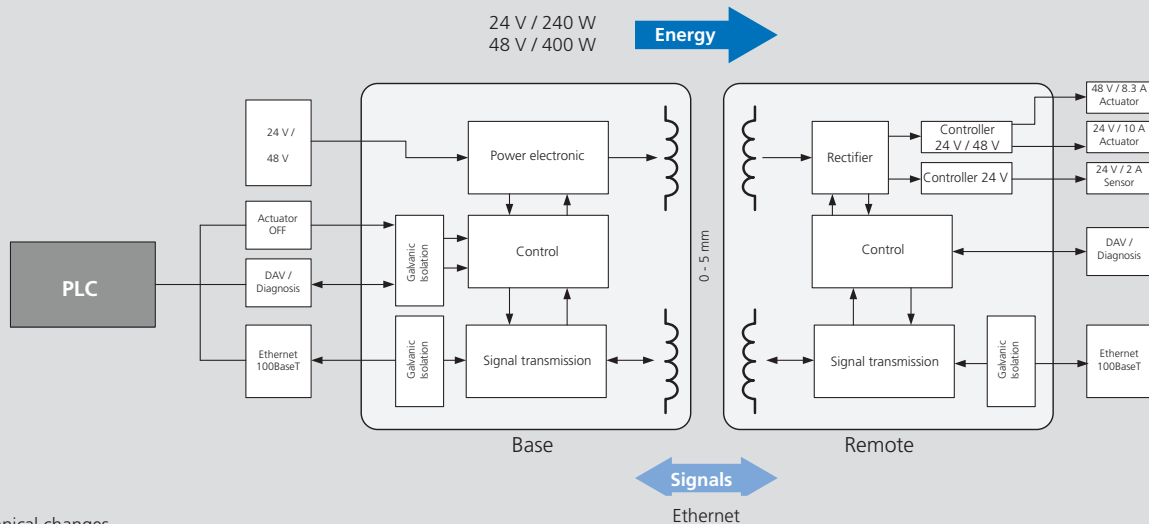
Technical features

- Diameter: 180 mm / Through hole: 85 mm
- Operating voltage: 24 V or 48 V
- Transmission distance: 0 - 5 mm at 24 V or 0 - 3 mm at 48 V
- Energy transmission: 24 V / 240 W or 48 V / 400 W (adjustable)
- Signal transmission: Ethernet 100 Base-T
- Transmission bandwidth < 5 MBit/s
- Connections: M12 Ethernet (D-coded), M12 Diagnosis (A-coded), terminal block (Energy)
- Protection class: IP67

Block diagram

Standard equipment

Inductive coupler base oder remote



Subject to technical changes.
For more detailed information please ask our customer service.

Inductive coupling system F180 Ethernet

Type	Base	Remote
Id. No.	0E011246	0E011247
Operating temperature (body surface)	-20° C ... +60° C	
Stocking temperature	-20° C ... +60° C	
Transmission distance	0 mm ... 5 mm (24 V) 0 mm ... 3 mm (48 V)	
Operating voltage	24 V / 48 V	-
Output voltage (Actuator supply)*	-	24 V DC / 10 A 48 V DC / 8.3 A
Output voltage (Sensor supply)*	-	24 V DC / 4 A
Signal transmission	Ethernet 100 Base-T	
LED function display	3 LEDs 2-color	
Current consumption (base)	15 A (24 V) 12 A (48 V)	-
Overload protection / short-circuit protection	✓	✓
Reverse polarity protection	-	< 50 mV
Data valid output	max. 100 mA	-
Ready delay	< 5 s	

*max 400 W total

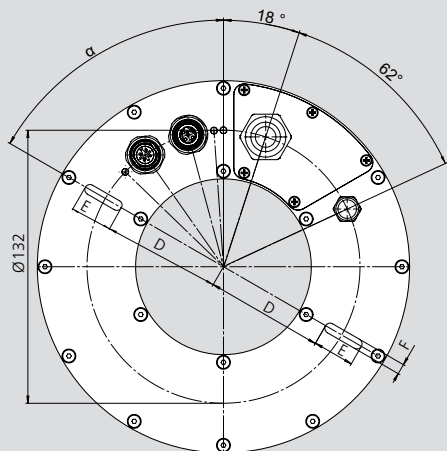
Inductive Coupling System

- Stationary Unit - Base
- Mobile Unit - Remote

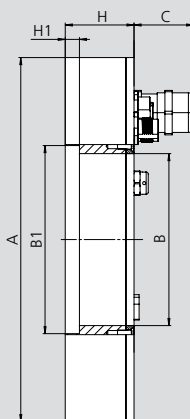
F180 Ethernet

Axial coupler

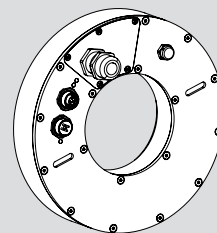
Base / Remote:



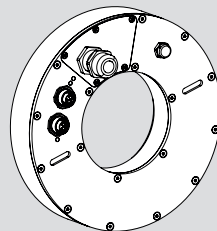
Base / Remote:



Base:



Remote:



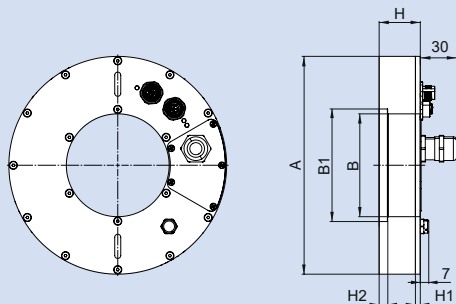
Subject to technical changes.
For more detailed information please ask our customer service.

Inductive coupling system F180 Ethernet

Type		Base	Remote
Id. No.		0E011246	0E011247
A	mm	180	
B	mm	85	
B1	mm	93	
C	mm	29.5	
D	mm	57	
E	mm	20	
F	mm	5	
H	mm	34	
H1	mm	7	
α	degree	60	
Housing material		Al, GFK	
Protection class		IP67	
Weight	kg	1,172	1,275

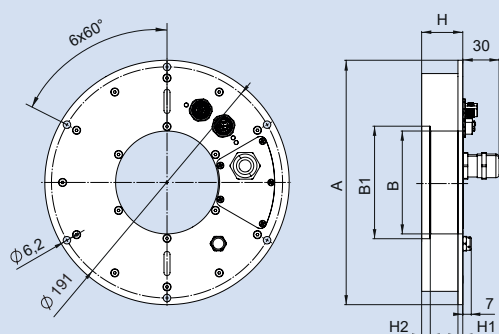
Function Base		Function Remote	
LED Power		LED Actuator	
Color	Green/red	Color	Green/red
Function	Off » Unit not supplied with voltage (or undervoltage)	Function	Off » Unit not paired
	On (green) » Voltage ok and mobile unit has been detected		On (green) » Unit paired, voltage output actuator ok
	2 Hz green 50/ 50% » Operating temperature in critical range		Flashes 2 Hz red » Unit paired but short circuit on actuator
	1 Hz green 25/75% » Voltage ok but no mobile unit detected		Flashes 5 Hz red » Internal error
	1 Hz red/green » Incompatible mobile unit detected	LED Sensor supply	
	2 Hz red » Foreign element detected	Color	Green/red
5 Hz red » Internal error	Function	Off » Unit not paired	
LED Signal transmission Ethernet		On (green) » Unit paired, voltage output sensor (24 V) ok	
Color		Yellow/red	Flashes 2 Hz red » Unit paired but short circuit on sensor (24 V)
Function	Off » No mobile unit detected	Flashes 5 Hz red » Internal error	
	On/yellow » Signal transmission ready	LED Signal transmission	
	1 Hz yellow » Data packets are being transmitted	Color	Yellow/red
	3 Hz yellow » 50% of the transmission bandwidth used (10 s)	Function	Off » No mobile unit detected
	8 Hz red » Data packets were discarded (in the last 10 s)		On/yellow » Signal transmission ready
On/red » Error in data transmission (internal error)	Flashes 1 Hz yellow » Data packets are being transmitted		
LED Energy transmission			Flashes 3 Hz yellow » 50% of the transmission bandwidth used (10 s)
Color	Yellow/red	Flashes 8 Hz red » Data packets were discarded (in the last 10 s)	
Function	Off » No mobile unit detected	On/red » Error in data transmission (internal error)	
	On (yellow) » Unit coupled, voltage output ok		
	1 Hz red/yellow » Short circuit at voltage output sensor		
	3 Hz red/yellow » Short circuit at voltage output actuator		
	3 Hz red » Short circuit at both voltage outputs		
5 Hz red » Internal error			

Standard flange



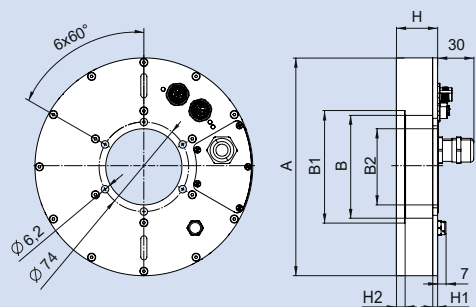
Type	F180 Ethernet	
	IC-Base F180 Ethernet D180/085	IC-Remote F180 Ethernet D180/085
Id.-No.	0E011246	0E011247
A	180	
B	85	
B1	93	
B2	-	
H	34	
H1	3	
H2	7	
Weight	1.31 kg	

Outer flange with feed-through



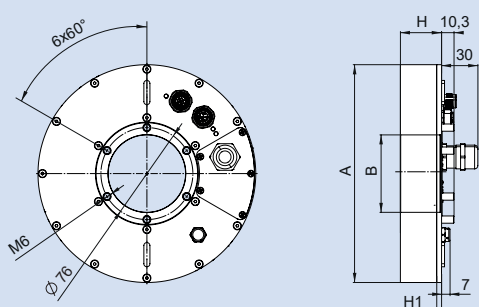
Type	F180 Ethernet	
	IC-Base F180 Ethernet D202/085	IC-Remote F180 Ethernet D202/085
Id.-No.	0E012340	0E012341
A	202	
B	85	
B1	93	
B2	-	
H	34	
H1	4	
H2	7	
Weight	1.47 kg	

Inner flange with feed-through



Type	F180 Ethernet	
	IC-Base F180 Ethernet D180/063	IC-Remote F180 Ethernet D180/063
Id.-No.	0E012342	0E012343
A	180	
B	85	
B1	93	
B2	63	
H	34	
H1	4	
H2	7	
Weight	1.4 kg	

Flange ring with feed-through



Type	F180 Ethernet	
	IC-Base F180 Ethernet D180/064	IC-Remote F180 Ethernet D180/064
Id.-No.	0E012344	0E012345
A	180	
B	64	
B1	-	
B2	-	
H	34	
H1	4	
H2	-	
Weight	1.58 kg	

FURTHER OPTIONS AVAILABLE ON REQUEST!

- Outer flange without feed-through
- Inner flange without feed-through
- Threaded sleeve with feed-through

Notes

Notes

Notes



Germany

SMW-AUTOBLOK Spannsysteme GmbH
Wiesentalstraße 28 • D-88074 Meckenbeuren
SMW-electronics GmbH
Wiesentalstraße 19 • D-88074 Meckenbeuren
Tel. +49 (0) 7542 - 405 - 0
Fax +49 (0) 7542 - 405 - 0
E-mail ► info@smw-autoblok.de
E-mail ► info@smw-electronics.de



Italy

AUTOBLOK s.p.a.
Via Duca D'Aosta n.24
Fraz. Novaretto
I-10040 Caprie - Torino
Tel. +39 011 - 9638411
Tel. +39 011 - 9632020
Fax +39 011 - 9632288
E-mail ► info@smwautoblok.it



U.S.A.

SMW-AUTOBLOK Corporation
285 Egidi Drive - Wheeling, IL 60090
Tel. +1 847 - 215 - 0591
Fax +1 847 - 215 - 0594
E-mail ► autoblok@smwautoblok.com



France

SMW-AUTOBLOK
17, Avenue des Frères Montgolfier - Z.I. Mi-Plaine
F-69680 Chassieu
Tel. +33 (0) 4.72.79.18.18, Fax +33 (0) 4.72.79.18.19
E-mail ► autoblok@smwautoblok.fr



Japan

SMW-AUTOBLOK Japan Inc.
1-56 Hira, Nishi-Ku, Nagoya
Tel. +81 (0) 52 - 504 - 0203
Fax +81 (0) 52 - 504 - 0205
E-mail ► infosaj@smwautoblok.co.jp



Great Britain

SMW-AUTOBLOK Telbrook Ltd.
7 Wilford Industrial Estate, Ruddington Lane,
Wilford, GB-Nottingham, NG11 7EP
Tel. +44 (0) 115 - 982 1133
E-mail ► info@smw-autoblok-telbrook.co.uk



China

SMW-AUTOBLOK (Shanghai) Work Holding Co.,Ltd.
2dn Floor, Building 1, No.141, Xuanchung Road,
Xuanchung Town, Pudong District,
201399, Shanghai P. R. China
Tel. +86 21 - 5810 - 6396, Fax +86 21 - 5810 - 6395
E-mail ► china@smwautoblok.cn



Spain

SMW-AUTOBLOK IBERICA, S.L.
Ursalto 4 – Pab. 9-10 Pol. 27,
20014 Donostia - San Sebastián (Gipuzkoa)
Tel.: +34 943 - 225 079, Fax: +34 943 - 225 074
E-mail ► info@smwautoblok.es



Mexico

SMW-AUTOBLOK Mexico, S.A. de C.V.
Acceso III No. 16 Int. 9, Condominio Quadrum
Industrial Benito Juárez, Queretaro, Qro. C.P. 76120
Tel. +52 (442) 209 - 5118, Fax +52 (442) 209 - 5121
E-mail ► smwmex@smwautoblok.mx



Canada

SMW AUTOBLOK CANADA CORP
1460 The Queensway - Suite 219
Etobicoke, ON M8Z 1S7
Tel. +1 416 - 316 - 3839
E-mail ► info@smwautoblok.ca



India

SMW-AUTOBLOK Workholding Pvt. Ltd.,
Plot No. 4, Weikfield Industrial Estate, Gat No. 125,
Sanaswadi, Tal - Shirur, Dist - Pune. 412 208
Tel. +91 2137 - 616 974
E-mail ► info@smwautoblok.in



Taiwan

AUTOBLOK Company Ltd.
No.6, Shuyi Rd., South Dist.,
Taichung, Taiwan
Tel. +886 4-226 10826, Fax +886 4-226 12109
E-mail ► taiwan@smwautoblok.tw



Turkey

SMW AUTOBLOK Makina San. Ve Tic. Ltd. Sti.
Yenisehir Mah, Osmanli Blv, Volume Kurtköy Ofis
No: 9, Kat: 2, D: 30, 34912, Pendik, Istanbul
Tel. +90 216 629 20 19
E-mail ► info@smwautoblok.com.tr



Czech Republic / Slovakia

SMW-AUTOBLOK s.r.o.
Merhautova 20
CZ - 613 00 Brno
Tel. +420 513 034 157
E-mail ► info@smw-autoblok.cz



Sweden / Norway

SMW-AUTOBLOK Scandinavia AB
Kommendörsgatan 3
281 35 Hässleholm
Tel. +46 (0) 761 420 111
E-mail ► info@smw-autoblok.se



Poland

SMW-AUTOBLOK Poland Sp. z o.o
OGRODNICZA 12
95 - 100 ZGIERZ
Tel. +48 736 059 699
E-mail ► info@smwautoblok.pl



Holland / Belgium

SMW Autoblok Benelux B.V.
Zeearend 7, 7609PT Almelo
Tel. +31 546 812 615
E-mail ► info@smwautoblok.nl



Korea

SMW-AUTOBLOK KOREA CO., LTD.
1502-ho, Charyong-ro 48beon-gil,
Uichang-gu, Changwon-si
Gyeongsangnam-do, 51391, Republic of Korea
Tel. +82 55 264 9505
E-mail ► info-korea@smw-autoblok.net