

DEFECTOTEST® Sensor systems

M 2.850/2.851/2.852/2.853



Figure 1: Sensor systems M 40, M 90, M 170 and M 240

Application

In the majority of cases when using the eddy-current method for non-destructive flaw testing, it is necessary to magnetize cold, ferromagnetic and austenitic semifinished parts. For this reason the type M* sensor systems have been developed as a principal component of the DEFECTOTEST system. Their main area of application is continuous throughput testing of pipes, rods and wires with circular or profiled cross-sections. This is done in conjunction with a DEFECTOMAT® electronic test and evaluation unit. The type M sensor systems cover the material diameter range from approx. 1.0 to 240 mm.

Test material temperatures up to +80 °C are permitted.

The M sensor systems are integrated into conveying equipment suited to the test requirements. The material to be checked passes centrally through the sensor system, and is thereby nondestructively tested. The M sensor systems also allow “Not Fe-semi-finished products” to be tested at any time. However, in this case it is not necessary to magnetize the test piece. Type H sensor systems are available especially for testing “Not Fe-semi-finished products” by the continuous passage method.

* M = Magnetization

Method of operation

In type M eddy-current sensor systems the electrical testing signals are generated by the electromagnetic interaction set up between the test piece and testing coils as the test piece passes through.

The physical method of operation is in accordance with German Standard DIN 54 140.

For most testing tasks type LMD¹ through-type coil using multi-differential circuitry are installed in the type M sensor systems. With these differential coils a comparison is made with the neighbouring areas of the material. Short surface defects running steeply into the material are detected with high sensitivity by the differential coil. Longitudinally aligned defects are indicated according to their local difference in magnitude. All LMD test coils additionally contain a separate absolute winding. Used in conjunction with the absolute test channel, this winding can locate longitudinal flaws, such as faultily welded sections in pipes with longitudinal seams.

Moreover, the absolute winding can be used for coarse material identification testing purposes.

During the testing operation the ferromagnetic object is magnetized by the magnetization coil built into the sensor system. This measure suppresses spurious noise due to the permeability deviation of the material. Nozzles are fitted on the entry and exits sides of the type M sensor system to protect it from damage. The internal diameter of the protective nozzles is slightly smaller than that of the associated test coils. This largely prevents mechanical damage to the test coils caused, e.g. by test objects with out-of-tolerance curvature. In addition, these protective nozzles - made of ferromagnetic steel - optimize the magnetic resistance between yoke and test object.

The type M transmitter system contains, except for M 240, so-called test piece sensors for controlling diverse processes in the electronic test and evaluation unit. These sensors are reflex light barriers positioned on the entry and exit sides of the sensor system, or on its entry side only. As the test object travels through, the sensors signal the position of its ends relative to the sensor system.

Construction

Five different sizes type M sensor systems are used in the material diameter range 1.0 to 240 mm. In each case the next biggest sensor system also covers the complete range of the smaller system.

The following are available:

Sensor system M 40
for the material diameter range 1.0 to 40 mm

Sensor system M 90
for the material diameter range 1.0 to 90 mm

Sensor system M 140
for the material diameter range 1.0 to 140 mm

Sensor system M 170
for the material diameter range 1.0 to 170 mm

Sensor system M 240
for the material diameter range 1.0 to 240 mm

The modular design of the type M sensor systems is such that the customer can always cover his complete range of diameters with just one sensor system from the series. The size of sensor system to be chosen in each case depends on the object with largest diameter to be tested by the user. Starting in each case from the largest nominal diameter, the sensor systems M 90, M 140 and M 170 can be reduced down to a nominal diameter of 1.2 mm by using suitable coil adapters and protective nozzle adapters, sensor systems M 40, M 90, M 140, M 170 and M 240 can be used with fully encircling through-type coils as well as segment coils.

¹ Low-Frequency-Multi-Difference

Selection of test coil and protective nozzle diameters

In order to optimize the test results, special attention must be paid to the choice of diameters for the test coil and protective nozzles. The principal criteria for this choice are derived from the properties of the test material, e.g., its straightness, ovality or surface condition and the accuracy of the guidance mechanism; the test specifications stated in the special offer must be taken into consideration.

The air gap between the test material and protective nozzles and the test coil is especially important. Because conditions vary from customer to customer, we are unable to quote a generally applicable air gap, so that values gained from practical experience are used. The following air gap figures serve as a nozzle: For precision pipes and rods approx. 1 mm, for black rolled material approx. 2 to 4 mm, for material in

the upper \varnothing range up to 6 mm. As the air gap increases so the magnetic resistance increase, and as result the absolute flaw detection sensitivity decreases. This can be compensated increasing the sensitivity of the equipment.

The signal-to-noise ratio of the flaw signal and the root level is vital to flaw detection, and must be determined by reference to the adjustment standard prior to testing.

The diameter increments of the protective nozzles and the test coils can be seen from the Ordering Instructions. The diameter stated is the nominal diameter. It represents the inside width of the protective nozzles; the inside width of the test coils is slightly larger than the nominal width (refer to tables page 10/11).

Magnetizing yokes

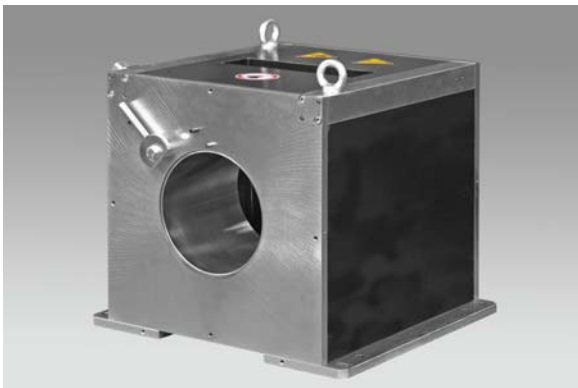


Figure 2: Sensor system M 240

The magnetizing yokes are made up of solid steel plates; the interior is cast in epoxy resin. The magnetizing coil is embedded in the epoxy resin thus waterproofing it.

The magnetizing yokes fulfill the German protective enclosure specification standard IP 62.

Depending on the size of the magnetizing coil, the opening on the top side will accept the test coil either directly, or via a coil adapter (see tables). The protective nozzles are attached to

the two opening on the sides either directly or via nozzle adapters (see tables). The protective nozzles and their adapters are secured into position by locking levers. At the same time the protective nozzles center and hold the test coil.

At high ambient temperatures and a maximum magnetizing current setting the sensor system is subject to considerable heating. Although this does not damage the magnetizing yoke it does, however, make it difficult to change the protective nozzles. For this reason provision is made for fitting a liquid cooling equipment on the front of the sensor system to prevent the temperature of the protective nozzles from rising above +70 °C. Cleaned industrial water flowing at a rate of 3 dm³/min is used as the cooling medium. Liquid cooling equipment is available for the sensor systems M, except for M 240.

If test piece sensors are needed to control various processes in the electronic test and evaluation unit, then these are mounted on the magnetizing yoke.

The terminal box for connecting the power supply cable to the magnetizing yoke is mounted on one of its side walls. It satisfies protective enclosure specification IP 65 both with the flap closed, and with the plug inserted.

Magnetizing power supply

There are three Magnetizing power supplies MAG E, MAG M and MAG F for powering the magnetization yokes contained in the sensor systems M. For MAG E the Magnetization current is switchable in four steps, for MAG M in six steps. For MAG F the Magnetization current is switchable in sixteen steps and therefore you get a finer graduation of the Magnetic field strength.



Figure 3: Magnetizing power supply MAG F

Test piece sensors

The task of the test piece sensor is to suppress the signals generated by the free ends of the test object as they enter and exit; it also has the job of timing the marking control system, if fitted. The test piece sensors are reflex light barriers attached either on both the entry and exit sides of the sensor system, or on its entry side only. The pulses generated in the light barriers by the passage of the test object act via the signal gate to control various electrical processes in the electronic test and evaluation unit.

Test piece sensors are usually used when testing single items. The test piece sensors are adapted to every size of sensor system.

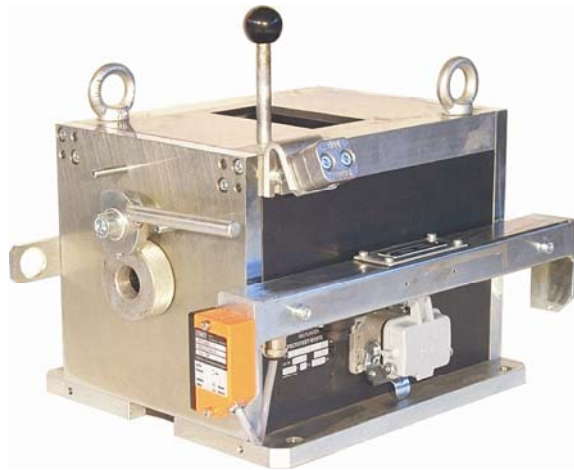


Figure 4: Magnetization yoke M 40 with test piece sensor

Connection cable

The coil cable is used to connect the test coil directly to the electronic evaluation unit. A yoke cable is needed to make the electrical connections between Magnetization yoke and Magnetization power supply unit.

The test piece sensor cable links the test piece sensor to the electronic evaluation unit. The standard length for all three cables is 10 m each.

LMD test coils

The use of series LMD through-type test coils depends on the tested material and the required testing frequency: LMD test coils cover test frequency range 1 to 100 kHz.

The test coils are fitted into the magnetizing yoke either directly or by using coil adapters, and fixed in the testing position by the protective nozzles. A slot on the side ensures fitting in the correct position. The extremely robust construction fully meets all the needs of tough testing operations. Protection against mechanical damage is provided by a flexible, abrasion-resistant plastic coating. The excitation and pick-up windings on the test coils are cast in synthetic resin.

The test coils are linked via the coil cable directly to the plug-and-socket connector of the electronic test unit. On the standard range the cross-section of the passage opening is circular. However, special LMD test coils with

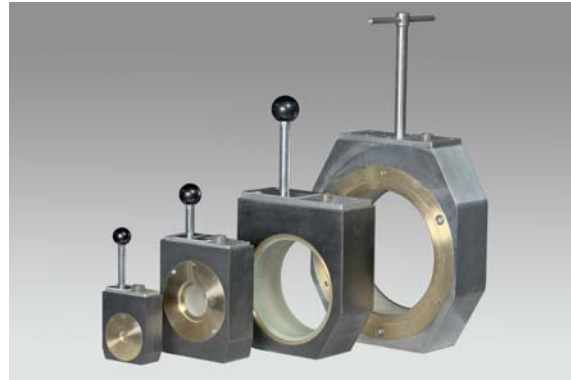


Figure 5: LMD test coils for different test object diameters

quadratic, rectangular, flat oval and elliptical cross-sections can be made to customers' requests if detailed sketches are submitted showing the profile and its orientation.

Coil adapters

Coil adapters 44 and 100 are used to mechanically adapt test coils with small cross-sections to the larger M 90, M 140, M 170 and M 240 magnetizing yokes.

Coil adapter 44 is needed to operate test coils with nominal diameters from 1.2 to 44 mm in magnetizing yoke M 90; coil adapters 44 and 100 are needed in magnetizing yoke M 140 and M 170, coil adapters 44, 100 and 180 are needed in magnetizing yoke M 240 (refer to tables page 10/11/15/17/19).



Figure 6: Coil adapters 100 and 180

Protective nozzles

The protective nozzles made of ferromagnetic steel with the internal width representing the nominal diameter, are fulfilling two tasks:

- Protection of the test coil against mechanical damage, e.g. due to out-of-tolerance curved test pieces, and those with badly cut ends
- Homogenous magnetization by optimizing the magnetic flux between magnetization coil and test object.

Each diameter increment requires one pair of protective nozzle. These are mounted either directly in the magnetizing yoke, or via nozzle adapters. Locking levers fix them in position and ensure proper seating. The diameter increments on the range of protective nozzles are matched to the range of test coils (refer to tables page 10/11).

Nozzle adapters

A complete range of protective nozzles is allocated to each magnetizing yoke.

Adaptation of protective nozzle from 1.2 to 44 mm inside Ø to M 90 requires nozzle adapter 44-2; adapter 44-3 is needed for M 140 and M 170.

Nozzle adapter 100-2 is needed if intending to use protective nozzles from 45 to 100 mm inside Ø in magnetizing yoke M 140 and M 170.

Nozzle adapter 170 is needed if intending to use protective nozzles from 104 to 180 mm inside Ø in magnetizing yoke M 240.

The nozzle adapters are locked and secured in the nozzle holder by a locking lever.



Figure 7: Protective nozzles for different test piece diameters

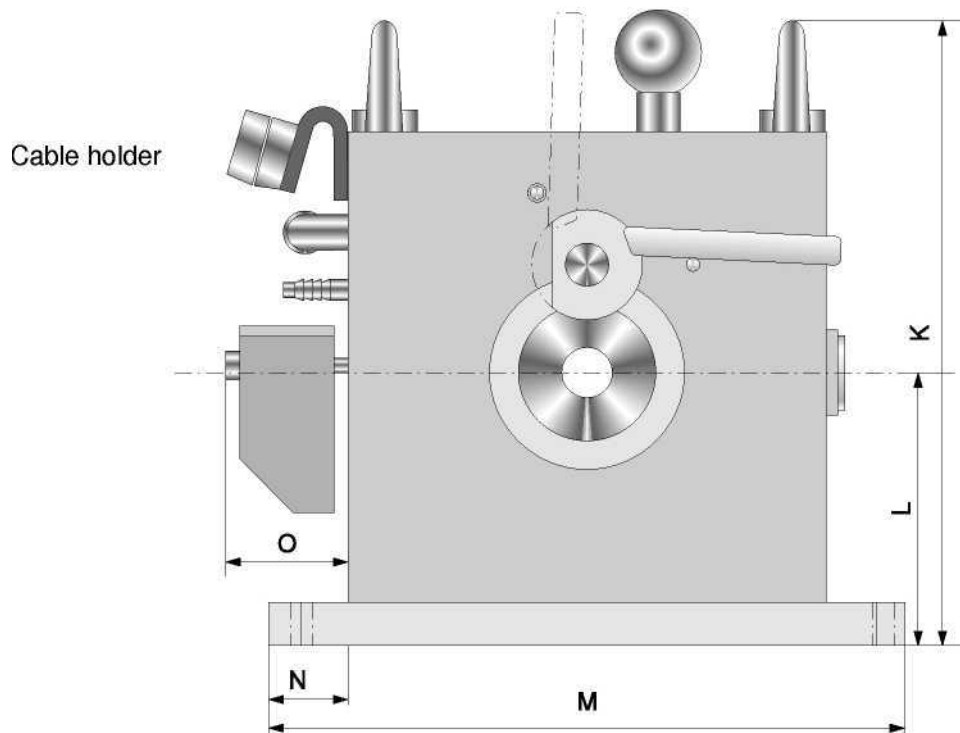


Figure 8: Nozzle adapter

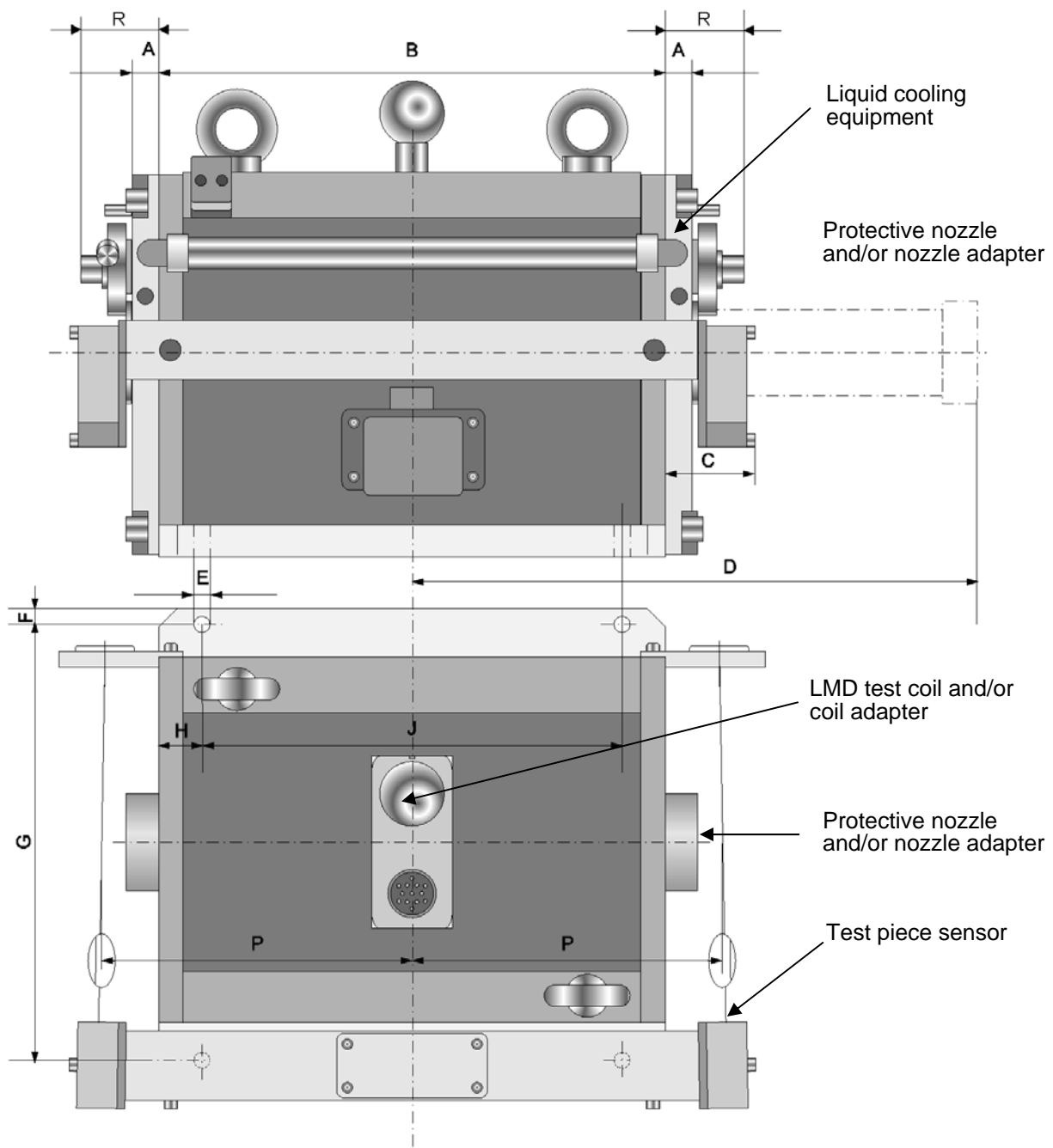
Technical Data

	Sensor system M 40	Sensor system M 90	Sensor systems M 140 and M 170	Sensor system M 240
Nominal diameter range (nominal diameter of the associated test coil)	1.2 to 44 mm Ø	1.2 to 100 mm Ø	1.2 to 150 mm Ø resp. 1.2 to 180 mm Ø	1.2 to 240 mm Ø
Test coil diameter	see table page 10/11			
Test frequency range for LMD test coils	1 to 100 kHz		1 to 30 kHz	
Test frequency range for HMD test coils	1 to 1000 kHz			
Maximum field strength at test piece	295 kA/m (205 kA/m with usage of MAG E)	338 kA/m	298 kA/m	284 kA/m
Largest test object cross section for magnetization saturation	approx. 800 mm ² (560 mm ² with usage of MAG E), e.g. solid material Ø 30 mm (25 mm with usage of MAG E)	approx. 2000 mm ² , e.g. solid material Ø 50 mm, tube (88.9 x 8) mm	approx. 5400 mm ² , e.g. solid material Ø 80 mm, tube (165 x 11) mm	approx. 9000 mm ² , e.g. tube (220 x 12.7) mm
Test material	primarily for ferromagnetic and austenitic materials with ferritic components, but also usable for pure austenitic and Not Fe- metals (last-mentioned without magnetization)			
Permissible ambient temperature	45 °C			
Permissible test object temperature	80 °C for continuous testing 100 °C for single object testing			
Power drawn from the magnetizing power supply unit	max. 300 W	max. 700 W	max. 1400 W	max. 1500 W
Dimensions of the sensor systems	see dimension diagram page 8/9			
Housing dimension of magnetizing power supply	380 x 380 x 210 mm (W x H x D)			
Mass of the sensor systems	see Overview of Components page 12 cont.			
Surface of steel parts	galvanized and neutralized			
Liquid cooling equipment maximum water pressure maximum flow rate	6 bar 3 dm ³ /min., use cleaned industrial water only			- -

Dimensions



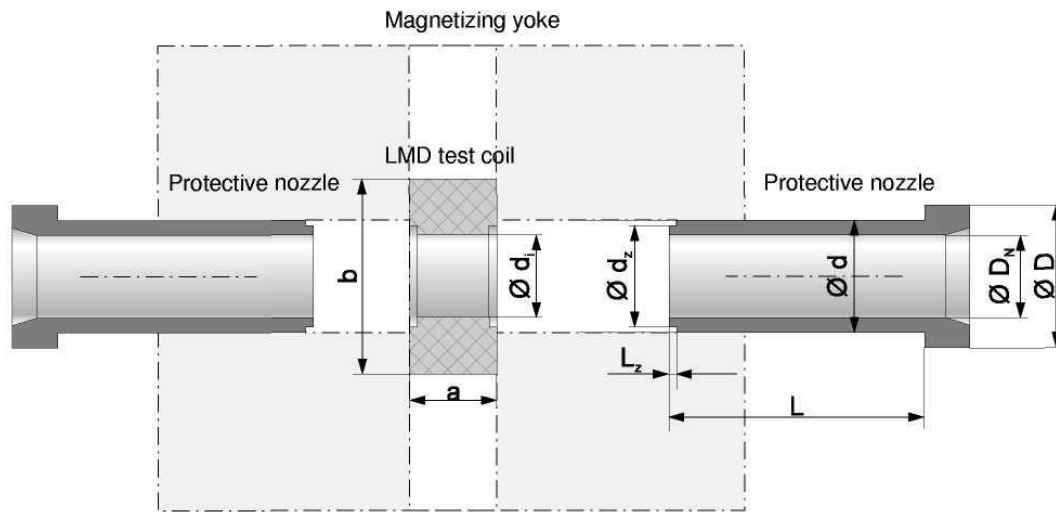
Dimension	Sensor system				
	M 40	M 90	M 140	M 170	M 240
A	17	17	25	25	-
B	293	393	460	460	639
C	60	70	70	70	-
D	300	430	500	500	618
E	Ø 11	Ø 13	Ø 18	Ø 18	Ø 18
F	10	15	20	20	32.5
G	250	330	600	600	630
H	25	35	50	50	33
J	243	323	360	360	576
K	266	337	615	615	661
L	118	153,5	280	280	305
M	270	360	640	640	680
N	32	40	60	60	55
O	50	50	50	50	-
P	182	236	270	270	-
R	45	50	50	50	46



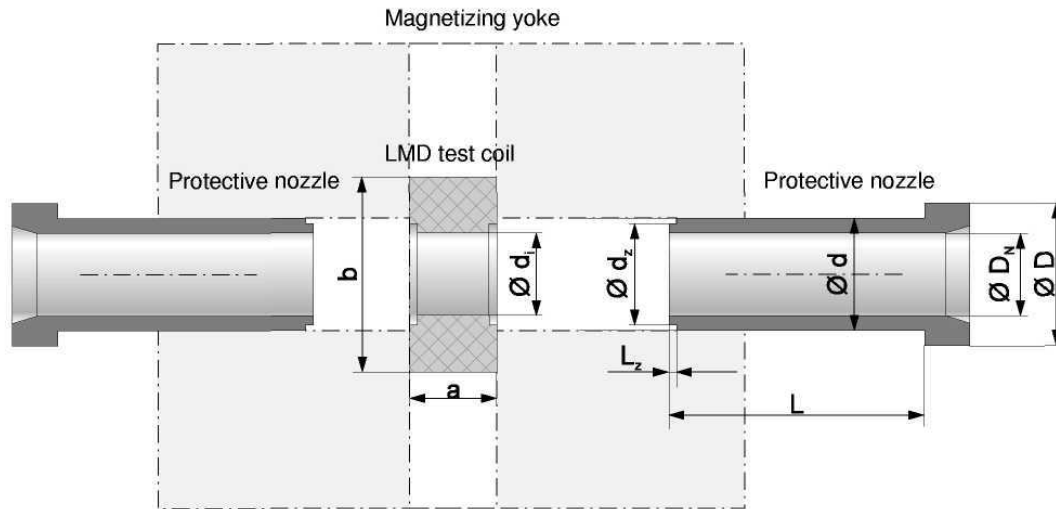
Liquid cooling equipment data:
 Max. water pressure 6 bar. Water flow approx. 3 l/min.
 Use only cleaned industrial water.
 Coolant water connection for hose with 9 mm
 internal width.

Magnetizing yoke shown in plane elevation
 no guide locking, cable holder and liquid cooling equip-
 ment

Main dimensions
Magnetizing yoke M 40
Magnetizing yoke M 90
Magnetizing yoke M 140 + M 170
Magnetizing yoke M 240

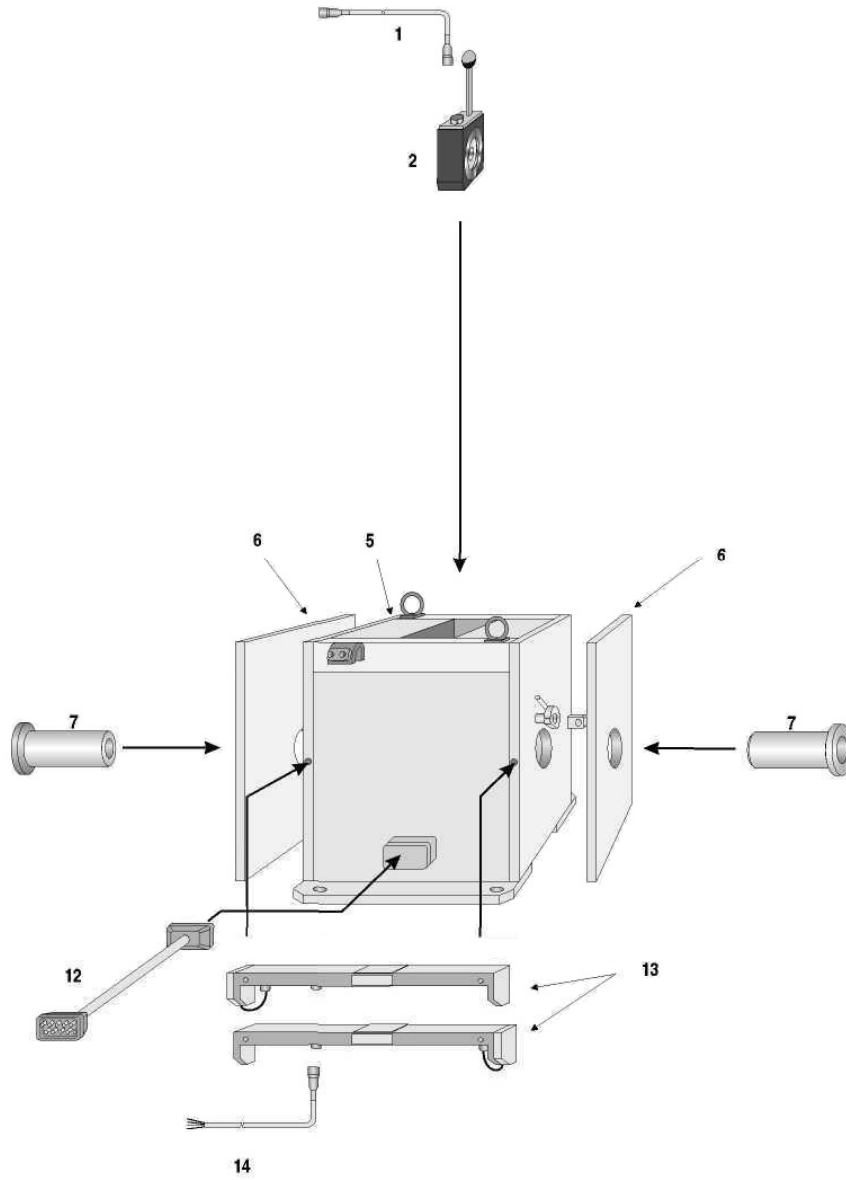


$\varnothing D_N$	$\varnothing d_i$	$\varnothing D$	$\varnothing d$	L	$\varnothing d_z$	L_z	a x b	Nozzle adapter	Coil adapter
Sensor system M 40									
1.2 to 5.9	$D_N+0.3$	60	54 _{e8}	127.6	20 _{e8}	10	45 x 127.5	-	-
6 to 15	$D_N+0.5$	60	54 _{e8}	127.6	20 _{e8}	10	45 x 127.5	-	-
16 to 38	$D_N+1.0$	60	54 _{e8}	127.5	45 _{e8}	7	45 x 127.5	-	-
39 to 44	$D_N+1.0$	60	54 _{e8}	127.5	52 _{e8}	7	45 x 127.5	-	-
Sensor system M 90									
1.2 to 5.9	$D_N+0.3$	60	54 _{e8}	127.6	20 _{e8}	10	45 x 127.5	DA 44-2	SpA 44
6 to 15	$D_N+0.5$	60	54 _{e8}	127.6	20 _{e8}	10	45 x 127.5	DA 44-2	SpA 44
16 to 38	$D_N+1.0$	60	54 _{e8}	127.5	45 _{e8}	7	45 x 127.5	DA 44-2	SpA 44
39 to 44	$D_N+1.0$	60	54 _{e8}	127.5	52 _{e8}	7	45 x 127.5	DA 44-2	SpA 44
45 to 68	$D_N+1.0$	140	112 _{e8}	166	75 _{e8}	7	70 x 210	-	-
70 to 100	$D_N+1.0$	140	112 _{e8}	166	112 _{e8}	-	70 x 210	-	-



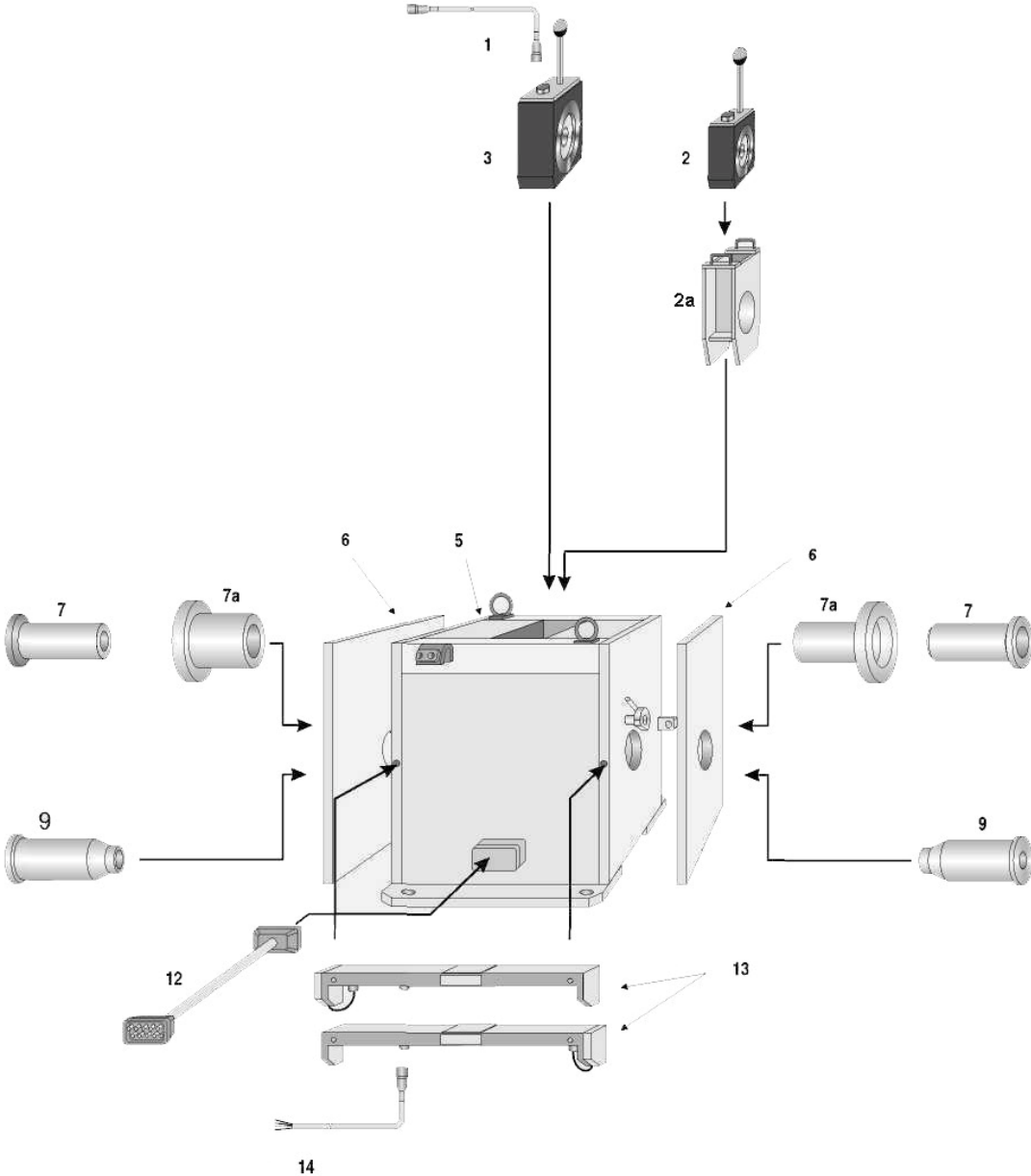
$\varnothing D_N$	$\varnothing d_i$	$\varnothing D$	$\varnothing d$	L	$\varnothing d_z$	L_z	a x b	Nozzle adapter	Coil adapter
Sensor system M 140 / M 170									
1.2 to 5.9	$D_N+0.3$	60	54 _{e8}	127.6	20 _{e8}	10	45 x 127.5	DA 44-3	SpA 44+SpA 100
6 to 15	$D_N+0.5$	60	54 _{e8}	127.6	20 _{e8}	10	45 x 127.5	DA 44-3	SpA 44+SpA 100
16 to 38	$D_N+1.0$	60	54 _{e8}	127.5	45 _{e8}	7	45 x 127.5	DA 44-3	SpA 44+SpA 100
39 to 44	$D_N+1.0$	60	54 _{e8}	127.5	52 _{e8}	7	45 x 127.5	DA 44-3	SpA 44+SpA 100
45 to 68	$D_N+1.0$	140	112 _{e8}	166	75 _{e8}	7	70 x 210	DA 100-2	SpA 100
70 to 100	$D_N+1.0$	140	112 _{e8}	166	112 _{e8}	-	70 x 210	DA 100-2	SpA 100
104 to 150	$D_N+2.0$	215	188 _{e8}	186.5	188 _{e8}	-	100 x 280	-	-
104 to 180	$D_N+2.0$	215	188 _{e8}	186.5	188 _{e8}	-	100 x 280	-	-
Sensor system M 240									
1.2 to 5.9	$D_N+0.3$	60	54 _{e8}	127.6	20 _{e8}	10	45 x 127.5	on request	SpA 44+SpA 100+SpA 180
6 to 15	$D_N+0.5$	60	54 _{e8}	127.6	20 _{e8}	10	45 x 127.5	on request	SpA 44+SpA 100+SpA 180
16 to 38	$D_N+1.0$	60	54 _{e8}	127.5	45 _{e8}	7	45 x 127.5	on request	SpA 44+SpA 100+SpA 180
39 to 44	$D_N+1.0$	60	54 _{e8}	127.5	52 _{e8}	7	45 x 127.5	on request	SpA 44+SpA 100+SpA 180
45 to 68	$D_N+1.0$	140	112 _{e8}	166	75 _{e8}	7	70 x 210	DA 100	SpA 100+SpA 180
70 to 100	$D_N+1.0$	140	112 _{e8}	166	112 _{e8}	-	70 x 210	DA 100	SpA 100+ SpA 180
104 to 180	$D_N+2.0$	215	188 _{e8}	186.5	188 _{e8}	-	100 x 280	DA 170	SpA 180
185 to 240	$D_N+2.0$	300	265 _{e8}	245	265 _{e8}	-	102 x 355	-	-

Sensor system M 40



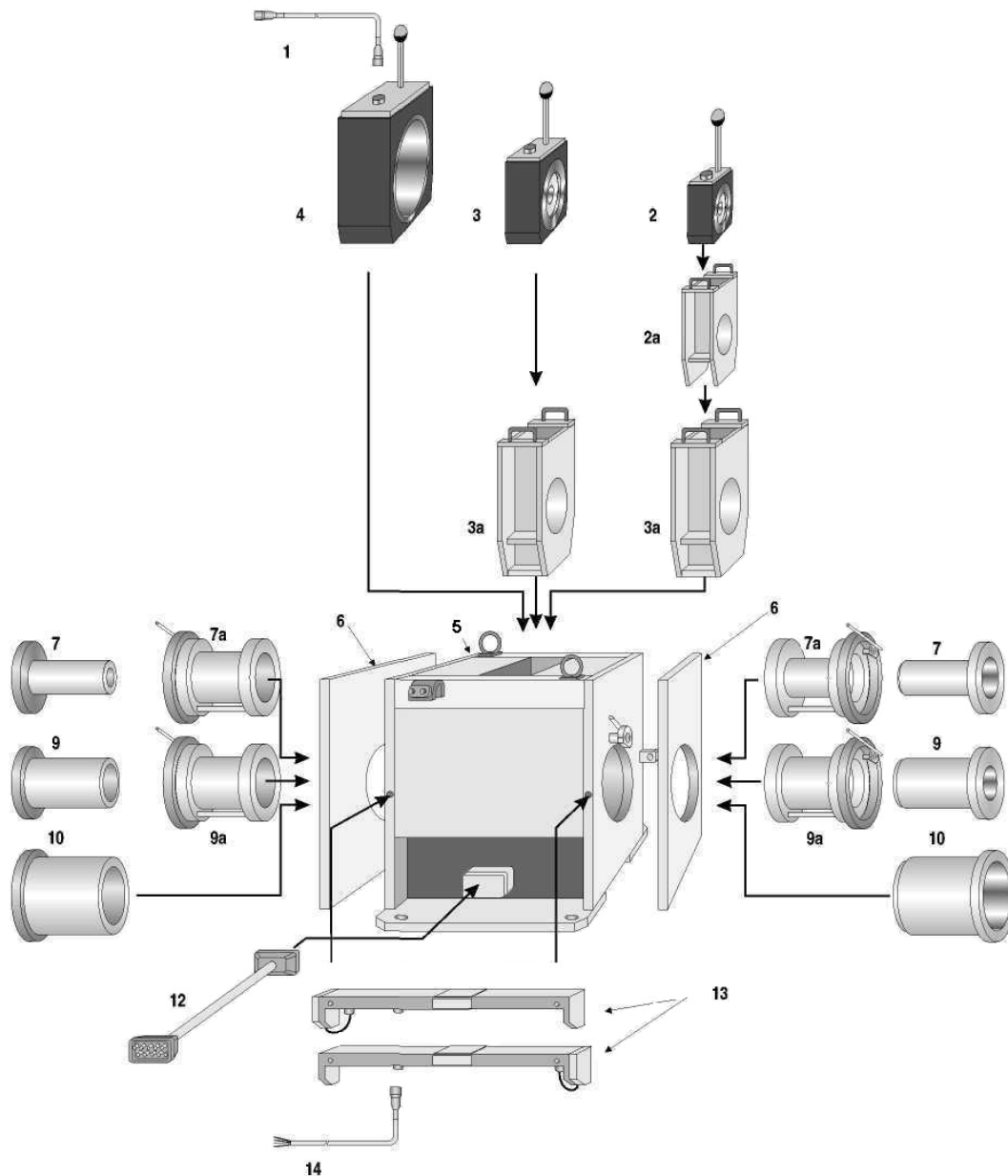
Pos.	Designation	Part-No.	Mass [kg]
1	Coil cable 10 m (standard length)	2.899.51-1110	3
2	LMD test coil 1.2 to 44 mm nominal-Ø	2.891.30-0012 to 2.891.30-0440	approx. 1
5	Magnetizing yoke M 40	2.850.01-1002	55
6	Liquid cooling equipment	2.850.01-1901	4
7	Protective nozzle 1.2 to 44 mm nominal-Ø	2.850.01-2012 to 2.850.01-2440	1 to 2.5
12	Yoke cable 10 m (standard length)	2.899.11-1210 or 2.899.01-1210	3
13	Test piece sensor, left or Test piece sensor, right	2.850.01-6020 2.850.01-6030	1.8 1.8
14	Test piece sensor cable 10 m (standard length)	2.840.01-9901	1.2

Sensor system M 90



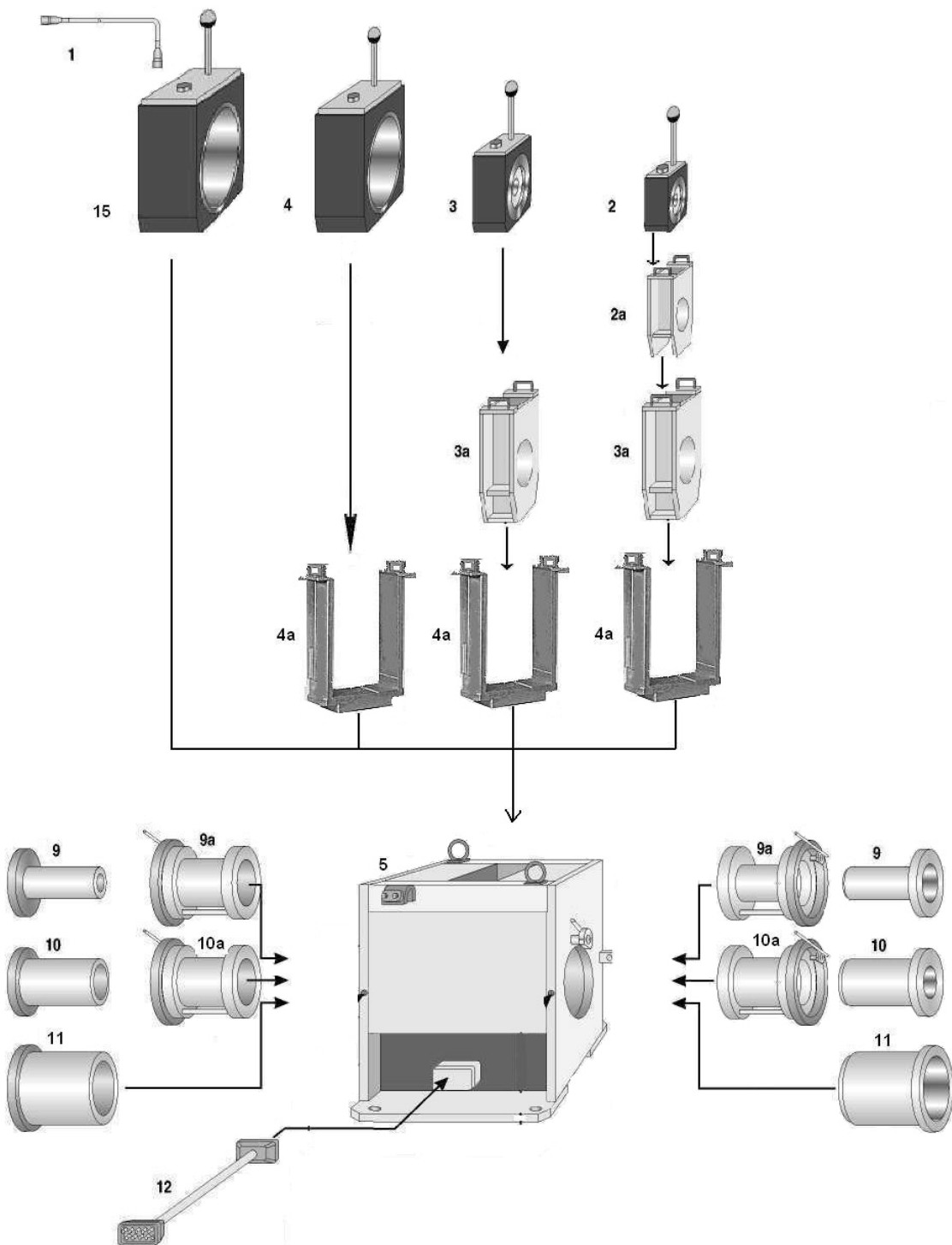
Pos.	Designation	Part-No.	Mass [kg]
1	Coil cable 10 m (standard length)	2.899.51-1110	3
2	LMD test coil 1.2 to 44 mm nominal-Ø	2.891.30-0012 to 2.891.30-0440	approx. 1
2a	Coil adapter 44	2.852.01-5202	approx. 8
3	LMD test coil 45 to 100 mm nominal-Ø	2.891.30-3045 to 2.891.30-3100	4
5	Magnetizing yoke M 90	2.851.02-1002	92
6	Liquid cooling equipment	2.851.01-1901	6
7	Protective nozzle 1.2 to 44 mm nominal-Ø	2.850.01-2012 to 2.850.01-2440	1 to 2.5
7a	Nozzle adapter 44-2	2.851.01-5102	22
9	Protective nozzle 45 to 100 mm nominal-Ø	2.851.01-3045 to 2.851.01-3100	3.5 to 12
12	Yoke cable 10 m (standard length)	2.899.11-1210 or 2.899.01-1210	3 3
13	Test piece sensor, left or Test piece sensor, right	2.851.01-6020 2.851.01-6030	1.8 1.8
14	Test piece sensor cable 10 m (standard length)	2.840.01-9901	1.2

Sensorsysteme M 140 + M 170



Pos.	Designation	Part-No.	Mass [kg]
1	Coil cable 10 m (standard length)	2.899.51-1110	3
2	LMD test coil 1.2 to 44 mm nominal-Ø	2.891.30-0012 to 2.891.30-0440	approx. 1
2a	Coil adapter 44	2.852.01-5202	approx. 3
3	LMD test coil 45 to 100 mm nominal-Ø	2.891.30-3045 to 2.891.30-3100	4
3a	Coil adapter 100	2.852.01-5203	approx. 8
4	LMD test coil 101 to 180 mm nominal-Ø	2.891.13-6101 to 2.891.13-6180	10
5	Magnetizing yoke M 170 Magnetizing yoke M 140	2.852.01-1101 2.852.02-1001	320
6	Liquid cooling equipment	2.852.01-1901	19
7	Protective nozzle 1.2 to 44 mm nominal-Ø	2.850.01-2012 to 2.850.01-2440	1 to 2.5
7a	Nozzle adapter 44-3	2.852.01-5104	12
9	Protective nozzle 45 to 100 mm nominal-Ø	2.851.01-3045 to 2.851.01-3100	3.5 to 12
9a	Nozzle adapter 100-2	2.852.01-5105	12
10	Protective nozzle 101 to 150 mm nominal-Ø (M 140) Protective nozzle 101 to 180 mm nominal-Ø (M 170)	2.852.01-3101 to 2.852.01-3150 2.852.01-3101 to 2.852.01-3180	10 to 35
12	Yoke cable 10 m (standard length)	2.899.11-1210 or 2.899.01-1210	3
13	Test piece sensor, left or Test piece sensor, right	2.852.01-6020 2.852.01-6030	1.8 1.8
14	Test piece sensor cable 10 m (standard length)	2.840.01-9901	1.2

Sensorsysteme M 240



Pos.	Designation	Part-No.	Mass [kg]
1	Coil cable 10 m (standard length)	2.899.51-1110	3
2	LMD test coil 1.2 to 44 mm nominal-Ø	2.891.30-0012 to 2.891.30-0440	approx. 1
2a	Coil adapter 44	2.852.01-5202	approx. 3
3	LMD test coil 45 to 100 mm nominal-Ø	2.891.30-3045 to 2.891.30-3100	4
3a	Coil adapter 100	2.852.01-5203	approx. 8
4	LMD test coil 101 to 180 mm nominal-Ø	2.891.13-6101 to 2.891.13-6180	10
4a	Coil adapter 180	2.853.01-5204	10
5	Magnetizing yoke M 240	2.853.01-1001	750
9	Protective nozzle 45 to 100 mm nominal-Ø	2.851.01-3045 to 2.851.01-3100	3.5 to 12
9a	Nozzle adapter 100	2.853.01-5105	approx. 50
10	Protective nozzle 101 to 150 mm nominal-Ø (M 140) Protective nozzle 101 to 180 mm nominal-Ø (M 170)	2.852.01-3101 to 2.852.01-3150 2.852.01-3101 to 2.852.01-3180	10 to 35
10a	Nozzle adapter 170	2.853.01-5106	approx. 67
11	Protective nozzle 185 to 250 mm nominal-Ø	2.853.01-3185 to 2.853.01-3250	approx. 50
12	Yoke cable 10 m (standard cable)	2.899.11-1210 or 2.899.01-1210	3
15	LMD test coil 185 to 250 mm nominal-Ø	2.891.30-8185 to 2.891.30-8250	25

Ordering instructions

Designation	Part-No.	Order-No.
<u>STANDARD COMPONENTS M 40</u>		
MAGNETIZING YOKE M 40	2.850.01-1002	1013653
MAGNETIZING POWER SUPPLY MAG E, 4 STEPS	2.845.02-4017	1940945
MAGNETIZING POWER SUPPLY MAG M, 6 STEPS	2.845.02-4007	1912224
MAGNETIZING POWER SUPPLY MAG F, 16 STEPS	2.845.01-4011	1912208
TEST PIECE SENSOR, M40 LEFT	2.850.01-6020	1176226
TEST PIECE SENSOR, M40 RIGHT	2.850.01-6030	1176030
LIQUID COOLING EQUIPMENT, FOR YOKE M40	2.850.01-1901	1013688
COIL CABLE 10M, EMV	2.899.51-1110	1381610
YOKE CABLE 10M, ONE-SIDE CLAMP-TYPE CONNECTION	2.899.11-1210	1046330
YOKE CABLE 10M	2.899.01-1210	1044850
TEST PIECE SENSOR CABLE 10M, ONE-SIDE CLAMP-TYPE CONNECTION	2.840.01-9901	1349716
PROTECTIVE NOZZLE, NOM.SIZE 1.2	2.850.01-2012	1013769
PROTECTIVE NOZZLE, NOM.SIZE 2.2	2.850.01-2022	1013777
PROTECTIVE NOZZLE, NOM.SIZE 3.2	2.850.01-2032	1013785
PROTECTIVE NOZZLE, NOM.SIZE 4.2	2.850.01-2042	1013793
PROTECTIVE NOZZLE, NOM.SIZE 5.2	2.850.01-2052	1014056
PROTECTIVE NOZZLE, NOM.SIZE 6	2.850.01-2060	1447173
PROTECTIVE NOZZLE, NOM.SIZE 7	2.850.01-2070	1014064
PROTECTIVE NOZZLE, NOM.SIZE 8	2.850.01-2080	1566741
PROTECTIVE NOZZLE, NOM.SIZE 9	2.850.01-2090	1014072
PROTECTIVE NOZZLE, NOM.SIZE 10	2.850.01-2100	1014080
PROTECTIVE NOZZLE, NOM.SIZE 11	2.850.01-2110	1566733
PROTECTIVE NOZZLE, NOM.SIZE 12	2.850.01-2120	1566776
PROTECTIVE NOZZLE, NOM.SIZE 13	2.850.01-2130	1014099
PROTECTIVE NOZZLE, NOM.SIZE 14	2.850.01-2140	1290746
PROTECTIVE NOZZLE, NOM.SIZE 15	2.850.01-2150	1014102
PROTECTIVE NOZZLE, NOM.SIZE 16	2.850.01-2160	1517538
PROTECTIVE NOZZLE, NOM.SIZE 17	2.850.01-2170	1013807
PROTECTIVE NOZZLE, NOM.SIZE 18	2.850.01-2180	1447181
PROTECTIVE NOZZLE, NOM.SIZE 19	2.850.01-2190	1152084
PROTECTIVE NOZZLE, NOM.SIZE 20	2.850.01-2200	1013815
PROTECTIVE NOZZLE, NOM.SIZE 21	2.850.01-2210	1517511
PROTECTIVE NOZZLE, NOM.SIZE 22	2.850.01-2220	1447190
PROTECTIVE NOZZLE, NOM.SIZE 23	2.850.01-2230	1013971
PROTECTIVE NOZZLE, NOM.SIZE 24	2.850.01-2240	1447203
PROTECTIVE NOZZLE, NOM.SIZE 25	2.850.01-2250	1447211
PROTECTIVE NOZZLE, NOM.SIZE 26	2.850.01-2260	1013980
PROTECTIVE NOZZLE, NOM.SIZE 27	2.850.01-2270	1344463
PROTECTIVE NOZZLE, NOM.SIZE 28	2.850.01-2280	1447220
PROTECTIVE NOZZLE, NOM.SIZE 29	2.850.01-2290	1013998
PROTECTIVE NOZZLE, NOM.SIZE 30	2.850.01-2300	1424785
PROTECTIVE NOZZLE, NOM.SIZE 31	2.850.01-2310	1447238
PROTECTIVE NOZZLE, NOM.SIZE 32	2.850.01-2320	1014005
PROTECTIVE NOZZLE, NOM.SIZE 33	2.850.01-2330	1424793
PROTECTIVE NOZZLE, NOM.SIZE 34	2.850.01-2340	1429205
PROTECTIVE NOZZLE, NOM.SIZE 35	2.850.01-2350	1014013
PROTECTIVE NOZZLE, NOM.SIZE 36	2.850.01-2360	1517546
PROTECTIVE NOZZLE, NOM.SIZE 37	2.850.01-2370	1429213
PROTECTIVE NOZZLE, NOM.SIZE 38	2.850.01-2380	1014021
PROTECTIVE NOZZLE, NOM.SIZE 39	2.850.01-2390	1429221
PROTECTIVE NOZZLE, NOM.SIZE 40	2.850.01-2400	1429230
PROTECTIVE NOZZLE, NOM.SIZE 41	2.850.01-2410	1014048

Designation	Part-No.	Order-No.
PROTECTIVE NOZZLE, NOM.SIZE 42	2.850.01-2420	1429248
PROTECTIVE NOZZLE, NOM.SIZE 43	2.850.01-2430	1447246
PROTECTIVE NOZZLE, NOM.SIZE 44	2.850.01-2440	1014030
LMD TEST COIL, NOM.SIZE 1.2	2.891.30-0012	1436597
LMD TEST COIL, NOM.SIZE 2.2	2.891.30-0022	1436600
LMD TEST COIL, NOM.SIZE 3.2	2.891.30-0032	1436619
LMD TEST COIL, NOM.SIZE 4.2	2.891.30-0042	1436627
LMD TEST COIL, NOM.SIZE 5.2	2.891.30-0052	1436635
LMD TEST COIL, NOM.SIZE 6	2.891.30-0060	1436643
LMD TEST COIL, NOM.SIZE 7	2.891.30-0070	1436651
LMD TEST COIL, NOM.SIZE 8	2.891.30-0080	1436678
LMD TEST COIL, NOM.SIZE 9	2.891.30-0090	1436686
LMD TEST COIL, NOM.SIZE 10	2.891.30-0100	1436880
LMD TEST COIL, NOM.SIZE 11	2.891.30-0110	1437038
LMD TEST COIL, NOM.SIZE 12	2.891.30-0120	1437046
LMD TEST COIL, NOM.SIZE 13	2.891.30-0130	1436694
LMD TEST COIL, NOM.SIZE 14	2.891.30-0140	1436708
LMD TEST COIL, NOM.SIZE 15	2.891.30-0150	1436716
LMD TEST COIL, NOM.SIZE 16	2.891.30-0160	1436503
LMD TEST COIL, NOM.SIZE 17	2.891.30-0170	1436724
LMD TEST COIL, NOM.SIZE 18	2.891.30-0180	1436732
LMD TEST COIL, NOM.SIZE 19	2.891.30-0190	1436740
LMD TEST COIL, NOM.SIZE 20	2.891.30-0200	1436759
LMD TEST COIL, NOM.SIZE 21	2.891.30-0210	1436767
LMD TEST COIL, NOM.SIZE 22	2.891.30-0220	1436775
LMD TEST COIL, NOM.SIZE 23	2.891.30-0230	1436783
LMD TEST COIL, NOM.SIZE 24	2.891.30-0240	1436791
LMD TEST COIL, NOM.SIZE 25	2.891.30-0250	1436813
LMD TEST COIL, NOM.SIZE 26	2.891.30-0260	1436830
LMD TEST COIL, NOM.SIZE 27	2.891.30-0270	1436848
LMD TEST COIL, NOM.SIZE 28	2.891.30-0280	1436856
LMD TEST COIL, NOM.SIZE 29	2.891.30-0290	1436864
LMD TEST COIL, NOM.SIZE 30	2.891.30-0300	1436872
LMD TEST COIL, NOM.SIZE 31	2.891.30-0310	1436546
LMD TEST COIL, NOM.SIZE 32	2.891.30-0320	1436899
LMD TEST COIL, NOM.SIZE 33	2.891.30-0330	1436902
LMD TEST COIL, NOM.SIZE 34	2.891.30-0340	1436929
LMD TEST COIL, NOM.SIZE 35	2.891.30-0350	1436937
LMD TEST COIL, NOM.SIZE 36	2.891.30-0360	1436945
LMD TEST COIL, NOM.SIZE 37	2.891.30-0370	1436554
LMD TEST COIL, NOM.SIZE 38	2.891.30-0380	1436953
LMD TEST COIL, NOM.SIZE 39	2.891.30-0390	1436562
LMD TEST COIL, NOM.SIZE 40	2.891.30-0400	1436910
LMD TEST COIL, NOM.SIZE 41	2.891.30-0410	1436570
LMD TEST COIL, NOM.SIZE 42	2.891.30-0420	1436805
LMD TEST COIL, NOM.SIZE 43	2.891.30-0430	1436589
LMD TEST COIL, NOM.SIZE 44	2.891.30-0440	1436821
LEAFLET GERMAN, SENSOR SYSTEM M	2.850/51/52/53 UA01/D	1373625
LEAFLET ENGLISH, SENSOR SYSTEM M	2.850/51/52/53 UA01/E	1373633
OPERATING INSTRUCTIONS GER, SENSOR SYSTEM M	2.850/51/52/53 UA06/DE	1375407
OPERATING INSTRUCTIONS ENG, SENSOR SYSTEM M	2.850/51/52/53 UA06/EN	1375415

Designation	Part-No.	Order-No.
<u>STANDARD COMPONENTS M 90</u>		
MAGNETIZING YOKE M 90	2.851.02-1002	1015648
MAGNETIZING POWER SUPPLY MAG M, 6 STEPS	2.845.02-4007	1912224
MAGNETIZING POWER SUPPLY MAG F, 16 STEPS	2.845.01-4011	1912208
TEST PIECE SENSOR, M90 LEFT AND RIGHT	2.851.01-6010	1015591
TEST PIECE SENSOR, M90 LEFT	2.851.01-6020	1590839
TEST PIECE SENSOR, M90 RIGHT	2.851.01-6030	1590847
LIQUID COOLING EQUIPMENT, FOR YOKE M90	2.851.01-1901	1014900
COIL CABLE 10M, EMV	2.899.51-1110	1381610
YOKE CABLE 10M, ONE-SIDE CLAMP-TYPE CONNECTION	2.899.11-1210	1046330
YOKE CABLE 10M	2.899.01-1210	1044850
TEST PIECE SENSOR CABLE 10M, ONE-SIDE CLAMP-TYPE CONNECTION	2.840.01-9901	1349716
NOZZLE ADAPTER 44-2, SIZE M40 -> M90	2.851.01-5102	1015443
PROTECTIVE NOZZLE, NOM.SIZE 47	2.851.01-3047	1015150
PROTECTIVE NOZZLE, NOM.SIZE 48	2.851.01-3048	1571796
PROTECTIVE NOZZLE, NOM.SIZE 49	2.851.01-3049	1459716
PROTECTIVE NOZZLE, NOM.SIZE 50	2.851.01-3050	1015168
PROTECTIVE NOZZLE, NOM.SIZE 51	2.851.01-3051	1459724
PROTECTIVE NOZZLE, NOM.SIZE 52	2.851.01-3052	1571800
PROTECTIVE NOZZLE, NOM.SIZE 53	2.851.01-3053	1015176
PROTECTIVE NOZZLE, NOM.SIZE 54	2.851.01-3054	1459732
PROTECTIVE NOZZLE, NOM.SIZE 55	2.851.01-3055	1571818
PROTECTIVE NOZZLE, NOM.SIZE 56	2.851.01-3056	1015184
PROTECTIVE NOZZLE, NOM.SIZE 57	2.851.01-3057	1429256
PROTECTIVE NOZZLE, NOM.SIZE 58	2.851.01-3058	1571826
PROTECTIVE NOZZLE, NOM.SIZE 59	2.851.01-3059	1015192
PROTECTIVE NOZZLE, NOM.SIZE 60	2.851.01-3060	1459740
PROTECTIVE NOZZLE, NOM.SIZE 61	2.851.01-3061	1571834
PROTECTIVE NOZZLE, NOM.SIZE 62	2.851.01-3062	1015206
PROTECTIVE NOZZLE, NOM.SIZE 63	2.851.01-3063	1459759
PROTECTIVE NOZZLE, NOM.SIZE 64	2.851.01-3064	1459767
PROTECTIVE NOZZLE, NOM.SIZE 65	2.851.01-3065	1015214
PROTECTIVE NOZZLE, NOM.SIZE 66	2.851.01-3066	1459775
PROTECTIVE NOZZLE, NOM.SIZE 67	2.851.01-3067	1571842
PROTECTIVE NOZZLE, NOM.SIZE 68	2.851.01-3068	1015222
PROTECTIVE NOZZLE, NOM.SIZE 70	2.851.01-3070	1459783
PROTECTIVE NOZZLE, NOM.SIZE 72	2.851.01-3072	1015230
PROTECTIVE NOZZLE, NOM.SIZE 74	2.851.01-3074	1459791
PROTECTIVE NOZZLE, NOM.SIZE 76	2.851.01-3076	1015249
PROTECTIVE NOZZLE, NOM.SIZE 78	2.851.01-3078	1459805
PROTECTIVE NOZZLE, NOM.SIZE 80	2.851.01-3080	1015257
PROTECTIVE NOZZLE, NOM.SIZE 82	2.851.01-3082	1459813
PROTECTIVE NOZZLE, NOM.SIZE 84	2.851.01-3084	1015265
PROTECTIVE NOZZLE, NOM.SIZE 86	2.851.01-3086	1316249
PROTECTIVE NOZZLE, NOM.SIZE 88	2.851.01-3088	1015273
PROTECTIVE NOZZLE, NOM.SIZE 90	2.851.01-3090	1459821
PROTECTIVE NOZZLE, NOM.SIZE 92	2.851.01-3092	1015281
PROTECTIVE NOZZLE, NOM.SIZE 94	2.851.01-3094	1459830
PROTECTIVE NOZZLE, NOM.SIZE 96	2.851.01-3096	1015290
PROTECTIVE NOZZLE, NOM.SIZE 98	2.851.01-3098	1459848
PROTECTIVE NOZZLE, NOM.SIZE 100	2.851.01-3100	1015303
COIL ADAPTER 44, SIZE M40 -> M90	2.852.01-5202	1017713
LMD TEST COIL, NOM.SIZE 47	2.891.30-3047	1455117
LMD TEST COIL, NOM.SIZE 48	2.891.30-3048	1455141

Designation	Part-No.	Order-No.
LMD TEST COIL, NOM.SIZE 49	2.891.30-3049	1455176
LMD TEST COIL, NOM.SIZE 50	2.891.30-3050	1455206
LMD TEST COIL, NOM.SIZE 51	2.891.30-3051	1455230
LMD TEST COIL, NOM.SIZE 52	2.891.30-3052	1455265
LMD TEST COIL, NOM.SIZE 53	2.891.30-3053	1455290
LMD TEST COIL, NOM.SIZE 54	2.891.30-3054	1455320
LMD TEST COIL, NOM.SIZE 55	2.891.30-3055	1455354
LMD TEST COIL, NOM.SIZE 56	2.891.30-3056	1455389
LMD TEST COIL, NOM.SIZE 57	2.891.30-3057	1455419
LMD TEST COIL, NOM.SIZE 58	2.891.30-3058	1455443
LMD TEST COIL, NOM.SIZE 59	2.891.30-3059	1455478
LMD TEST COIL, NOM.SIZE 60	2.891.30-3060	1455508
LMD TEST COIL, NOM.SIZE 61	2.891.30-3061	1455532
LMD TEST COIL, NOM.SIZE 62	2.891.30-3062	1455567
LMD TEST COIL, NOM.SIZE 63	2.891.30-3063	1455591
LMD TEST COIL, NOM.SIZE 64	2.891.30-3064	1455621
LMD TEST COIL, NOM.SIZE 65	2.891.30-3065	1455656
LMD TEST COIL, NOM.SIZE 66	2.891.30-3066	1455680
LMD TEST COIL, NOM.SIZE 67	2.891.30-3067	1455710
LMD TEST COIL, NOM.SIZE 68	2.891.30-3068	1455745
LMD TEST COIL, NOM.SIZE 70	2.891.30-3070	1455770
LMD TEST COIL, NOM.SIZE 72	2.891.30-3072	1455800
LMD TEST COIL, NOM.SIZE 74	2.891.30-3074	1455834
LMD TEST COIL, NOM.SIZE 76	2.891.30-3076	1455869
LMD TEST COIL, NOM.SIZE 78	2.891.30-3078	1455893
LMD TEST COIL, NOM.SIZE 80	2.891.30-3080	1455923
LMD TEST COIL, NOM.SIZE 82	2.891.30-3082	1455958
LMD TEST COIL, NOM.SIZE 84	2.891.30-3084	1455982
LMD TEST COIL, NOM.SIZE 86	2.891.30-3086	1456016
LMD TEST COIL, NOM.SIZE 88	2.891.30-3088	1456040
LMD TEST COIL, NOM.SIZE 90	2.891.30-3090	1456075
LMD TEST COIL, NOM.SIZE 92	2.891.30-3092	1456105
LMD TEST COIL, NOM.SIZE 94	2.891.30-3094	1456130
LMD TEST COIL, NOM.SIZE 96	2.891.30-3096	1456164
LMD TEST COIL, NOM.SIZE 98	2.891.30-3098	1456199
LMD TEST COIL, NOM.SIZE 100	2.891.30-3100	1456229
LEAFLET GERMAN, SENSOR SYSTEM M	2.850/51/52/53 UA01/D	1373625
LEAFLET ENGLISH, SENSOR SYSTEM M	2.850/51/52/53 UA01/E	1373633
OPERATING INSTRUCTIONS GER, SENSOR SYSTEM M	2.850/51/52/53 UA06/DE	1375407
OPERATING INSTRUCTIONS ENG, SENSOR SYSTEM M	2.850/51/52/53 UA06/EN	1375415
<u>STANDARD COMPONENTS M 140 and M 170</u>		
MAGNETIZING YOKE M 140	2.852.01-1101	1479660
MAGNETIZING YOKE M 170	2.852.02-1001	1018060
MAGNETIZING POWER SUPPLY MAG M, 6 STEPS	2.845.02-4007	1912224
MAGNETIZING POWER SUPPLY MAG F, 16 STEPS	2.845.01-4011	1912208
TEST PIECE SENSOR, M170 LEFT	2.852.01-6020	1591720
TEST PIECE SENSOR, M170 RIGHT	2.852.01-6030	1591738
LIQUID COOLING EQUIPMENT, FOR YOKE M170	2.852.01-1901	1016695
COIL CABLE 10M, EMV	2.899.51-1110	1381610
YOKE CABLE 10M, ONE-SIDE CLAMP-TYPE CONNECTION	2.899.11-1210	1046330
YOKE CABLE 10M	2.899.01-1210	1044850
TEST PIECE SENSOR CABLE 10M, ONE-SIDE CLAMP-TYPE CONNECTION	2.840.01-9901	1349716
NOZZLE ADAPTER 44-3, SIZE M40 -> M170 (M 140)	2.852.01-5104	1017519
NOZZLE ADAPTER 100-2, SIZE M40 -> M170 (M 140)	2.852.01-5105	1017543

Designation	Part-No.	Order-No.
PROTECTIVE NOZZLE, NOM.SIZE 104	2.852.01-3104	1017080
PROTECTIVE NOZZLE, NOM.SIZE 108	2.852.01-3108	1017098
PROTECTIVE NOZZLE, NOM.SIZE 112	2.852.01-3112	1017101
PROTECTIVE NOZZLE, NOM.SIZE 116	2.852.01-3116	1017110
PROTECTIVE NOZZLE, NOM.SIZE 120	2.852.01-3120	1017128
PROTECTIVE NOZZLE, NOM.SIZE 125	2.852.01-3125	1017136
PROTECTIVE NOZZLE, NOM.SIZE 130	2.852.01-3130	1017144
PROTECTIVE NOZZLE, NOM.SIZE 135	2.852.01-3135	1017152
PROTECTIVE NOZZLE, NOM.SIZE 140	2.852.01-3140	1017160
PROTECTIVE NOZZLE, NOM.SIZE 145	2.852.01-3145	1017179
PROTECTIVE NOZZLE, NOM.SIZE 150	2.852.01-3150	1017187
PROTECTIVE NOZZLE, NOM.SIZE 155	2.852.01-3155	1017195
PROTECTIVE NOZZLE, NOM.SIZE 160	2.852.01-3160	1017209
PROTECTIVE NOZZLE, NOM.SIZE 165	2.852.01-3165	1017217
PROTECTIVE NOZZLE, NOM.SIZE 170	2.852.01-3170	1017225
PROTECTIVE NOZZLE, NOM.SIZE 175	2.852.01-3175	1017233
PROTECTIVE NOZZLE, NOM.SIZE 180	2.852.01-3180	1017241
COIL ADAPTER 100, SIZE M90 -> M170	2.852.01-5203	1017799
COIL ADAPTER 44, SIZE M40 -> M90	2.852.01-5202	1017713
LMD TEST COIL, NOM.SIZE 104	2.891.13-6104	1199390
LMD TEST COIL, NOM.SIZE 108	2.891.13-6108	1199404
LMD TEST COIL, NOM.SIZE 112	2.891.13-6112	1199412
LMD TEST COIL, NOM.SIZE 116	2.891.13-6116	1199420
LMD TEST COIL, NOM.SIZE 120	2.891.13-6120	1199439
LMD TEST COIL, NOM.SIZE 125	2.891.13-6125	1199447
LMD TEST COIL, NOM.SIZE 130	2.891.13-6130	1199455
LMD TEST COIL, NOM.SIZE 135	2.891.13-6135	1199463
LMD TEST COIL, NOM.SIZE 140	2.891.13-6140	1199471
LMD TEST COIL, NOM.SIZE 145	2.891.13-6145	1199480
LMD TEST COIL, NOM.SIZE 150	2.891.13-6150	1199498
LMD TEST COIL, NOM.SIZE 155	2.891.13-6155	1199501
LMD TEST COIL, NOM.SIZE 160	2.891.13-6160	1199510
LMD TEST COIL, NOM.SIZE 165	2.891.13-6165	1199528
LMD TEST COIL, NOM.SIZE 170	2.891.13-6170	1199536
LMD TEST COIL, NOM.SIZE 175	2.891.13-6175	1199544
LMD TEST COIL, NOM.SIZE 180	2.891.13-6180	1199552
LEAFLET GERMAN, SENSOR SYSTEM M	2.850/51/52/53 UA01/D	1373625
LEAFLET ENGLISH, SENSOR SYSTEM M	2.850/51/52/53 UA01/E	1373633
OPERATING INSTRUCTIONS GER, SENSOR SYSTEM M	2.850/51/52/53 UA06/DE	1375407
OPERATING INSTRUCTIONS ENG, SENSOR SYSTEM M	2.850/51/52/53 UA06/EN	1375415
<u>STANDARD COMPONENTS M 240</u>		
MAGNETIZING YOKE M 240	2.853.01-1001	1865960
MAGNETIZING POWER SUPPLY MAG M, 6 STEPS	2.845.02-4007	1912224
MAGNETIZING POWER SUPPLY MAG F, 16 STEPS	2.845.01-4011	1912208
COIL CABLE 10M, EMV	2.899.51-1110	1381610
YOKE CABLE 10M, ONE-SIDE CLAMP-TYPE CONNECTION	2.899.11-1210	1046330
YOKE CABLE 10M	2.899.01-1210	1044850
NOZZLE ADAPTER 170, SIZE M 170 (M 140) -> M240	2.853.01-5106	1866826
NOZZLE ADAPTER 100, SIZE M 90 -> M 240	2.853.01-5105	1866818
PROTECTIVE NOZZLE, NOM.SIZE 185	2.853.01-3185	1866877
PROTECTIVE NOZZLE, NOM.SIZE 190	2.853.01-3190	1898795

Designation	Part-No.	Order-No.
PROTECTIVE NOZZLE, NOM.SIZE 195	2.853.01-3195	1898809
PROTECTIVE NOZZLE, NOM.SIZE 200	2.853.01-3200	1894188
PROTECTIVE NOZZLE, NOM.SIZE 205	2.853.01-3205	1898817
PROTECTIVE NOZZLE, NOM.SIZE 210	2.853.01-3210	1894196
PROTECTIVE NOZZLE, NOM.SIZE 215	2.853.01-3215	1894285
PROTECTIVE NOZZLE, NOM.SIZE 220	2.853.01-3220	1898825
PROTECTIVE NOZZLE, NOM.SIZE 225	2.853.01-3225	1866885
PROTECTIVE NOZZLE, NOM.SIZE 230	2.853.01-3230	1873334
PROTECTIVE NOZZLE, NOM.SIZE 235	2.853.01-3235	1898833
PROTECTIVE NOZZLE, NOM.SIZE 240	2.853.01-3240	1898841
PROTECTIVE NOZZLE, NOM.SIZE 245	2.853.01-3245	1898850
PROTECTIVE NOZZLE, NOM.SIZE 250	2.853.01-3250	1898868
COIL ADAPTER 180, SIZE M 170 -> M 240	2.853.01-5204	1866869
COIL ADAPTER 100, SIZE M90 -> M170	2.852.01-5203	1017799
COIL ADAPTER 44, SIZE M40 -> M90	2.852.01-5202	1017713
LMD TEST COIL, NOM.SIZE 185	2.891.30-8185	1864327
LMD TEST COIL, NOM.SIZE 190	2.891.30-8190	1898477
LMD TEST COIL, NOM.SIZE 195	2.891.30-8195	1898515
LMD TEST COIL, NOM.SIZE 200	2.891.30-8200	1894129
LMD TEST COIL, NOM.SIZE 205	2.891.30-8205	1898540
LMD TEST COIL, NOM.SIZE 210	2.891.30-8210	1894161
LMD TEST COIL, NOM.SIZE 215	2.891.30-8215	1894242
LMD TEST COIL, NOM.SIZE 220	2.891.30-8220	1898582
LMD TEST COIL, NOM.SIZE 225	2.891.30-8225	1862480
LMD TEST COIL, NOM.SIZE 230	2.891.30-8230	1873156
LMD TEST COIL, NOM.SIZE 235	2.891.30-8235	1898620
LMD TEST COIL, NOM.SIZE 240	2.891.30-8240	1898663
LMD TEST COIL, NOM.SIZE 245	2.891.30-8245	1898701
LMD TEST COIL, NOM.SIZE 250	2.891.30-8250	1898736
LEAFLET GERMAN, SENSOR SYSTEM M	2.850/51/52/53 UA01/D	1373625
LEAFLET ENGLISH, SENSOR SYSTEM M	2.850/51/52/53 UA01/E	1373633
OPERATING INSTRUCTIONS GER, SENSOR SYSTEM M	2.850/51/52/53 UA06/DE	1375407
OPERATING INSTRUCTIONS ENG, SENSOR SYSTEM M	2.850/51/52/53 UA06/EN	1375415

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