



## **Quality Policy**

#### We at Omni Matrix (P) Ltd.,

- Strive to exceed the expectations of customers on Quality, Cost and Delivery of our products.
- Demonstrate Business Excellence through continual improvement with total employee involvement by adopting our Quality Management Systems.
- Adhere to applicable legal requirements and respect the interests of our stakeholders applying the values of our organization.

### **EHS Policy**

We at Omni Matrix (P) limited strive to achieve business goals in satisfying the customers and other interested parties.

- Prevention of pollution and minimization of accidents / near misses by adopting appropriate and safe manufacturing Practices.
- Comply with all applicable Local /Regional / National legal and other requirements.
- Conserve natural resources by promoting concepts for reducing, reusing and recycling of waste at all manufacturing stages.
- Continually improve the effectiveness of Environment and Occupational Health & safety management system by reviewing objectives and targets periodically.
- Communicate the policy to the interested parties, work with them to promote and educate on EHS requirements.



## About Omni Matrix

Omni has steadily moved up in the value chain since inception in 1996 following this motto by providing its customers with value-added products and services.

Based in Bangalore, India, specializing in manufacturing high-precision electromechanical components for industries ranging from automotive, power, aerospace, healthcare, consumer goods, electronics, electrical, hydraulics, pneumatics, and offhighway vehicle systems among others. Today, they serve all the truck OEMs in India meeting 100 per cent of the requirements.

Since their products are designed and manufactured to meet international quality standards such as SAE and ISO, their products are compatible with all models of trucks around the world.

Their core strength is design capabilities and we have proven it time and again through our products. Owing to the strong foundation and experience of our core team in manufacturing, which spans more than five decades. They offer practical solutions, provide tool designs and manufacturing support besides taking care that all activities are finished to meet global standards.

Be it injection moulds, stamping dies and fixtures, plastic injection moulding, machining, insert moulding and over moulding, metal stamping, wiring harness, electro-mechanicalsub-assemblies or product assembly with an In house test facility – we at Omni Matrix are known for our top-of-the-range products among the leading OEMs in India and abroad.

Their Products are ADR certified by TÜV SÜD auto services, Germany.

With 3rd party warehouses across Europe, Omni matrix is fully geared to meet your requirements at short lead times.

As an IATF16949 and ISO 14001 certified company, Omni Matrix is committed to developing innovative and branded products that enable our global customers and those at home deliver successful services to their clients.

# Index

7P/24V Type N / Type S	 05-06
7P/24V EBS / 5P/24V ABS, ADR	 07 - 08
13P /24V / ADR	 9
15P / 24V / ADR	 10 - 11
Adapter / 24V	 12 - 13
ISO 1724 / 12V	 14
SAE J 560 7P/12V	 15
Plug & Socket Accessories	 16 - 17
Specialiazed Applications	 18
Park Sockets	 19
ADR Cables & Wires	 20
Customised Solutions	 21
Air Brake Coils	 22 - 23
Certificates	 24
Cable Testina Facility	 25



Exceptional recoil memory.
Ergonomic design of plug for ease of installation
Plug design to withstand pull out force
Superior working life.
Improved terminal design for long life

Sheath material with excellent resistance to general chemicals and greases. Durable and reliable

COLOUR Black cable sheath with colour coded ISO connectors

APPLICATION Normal and Supplementary electrical connector cables for commercial vehicles

PLUG
VARIANTS
Over Moulded Plug
Plastic Plug

Working length (m)	Cable Spec (mm²)	Voltage	Standard
3.0	6 x 1.5, 1 x 2.5	24V	ISO 1185
3.0	4 x 1.5, 3 x 2.5	24V	ISO 3731
3.5	6 x 1.5, 1 x 2.5	24V	ISO 1185
3.5	4 x 1.5, 3 x 2.5	24V	ISO 3731
4.0	6 x 1.5, 1 x 2.5	24V	ISO 1185
4.0	4 x 1.5, 3 x 2.5	24V	ISO 3731







24V N	ISO 1185
Earth	1
Left hand rear position	2
Left hand indicator	3
Stop lights	4
Right hand indicator	5
Right hand rear position	6
Braking control	7



24\	/ S ISO 373
Earth	· ( <b>1</b> )
	2
Reversing light	3
Power supply	4
Control via earth	- <b>5</b>
Power supply	- 6
Rear fog light	



Ergonomic design of plug for ease of installation Plug design to withstand pull out force **FEATURES** Superior working life. Improved terminal design for long life

Sheath material with excellent resistance to **MATERIALS** general chemicals and greases. Durable and reliable

COLOUR Black cable sheath with colour coded ISO connectors

Normal and Supplementary electrical connector **APPLICATION** cables for commercial vehicles

**PLUG** Over Moulded Plug | Plastic Plug | Metal Plug **VARIANTS** 

Working length (m)	Cable Spec (mm²)	Voltage	Standard
3.0	6 x 1.0,1 x1.5	24V	ISO 1185
3.0	4 x 1.0, 3 x 1.5	24V	ISO 3731
3.5	6 x 1.0,1 x1.5	24V	ISO 1185
3.5	4 x 1.0, 3 x 1.5	24V	ISO 3731
4.0	6 x 1.0,1 x1.5	24V	ISO 1185
4.0	4 x 1.0, 3 x 1.5	24V	ISO 3731



24V N ISO 1185	
Earth <b>1</b>	
Left hand rear position 2	
Left hand indicator 3	<b>6 2</b> \
Stop lights 4	( 7
Right hand indicator 5	(3)
Right hand rear position 6	4
Braking control 7	



Plastic Plug

Earth	1
	2
Reversing light	3
Power supply	4
Control via earth	5
Power supply	6
Rear fog light	0



ISO 7638 ISO 4091 ISO 6722

**FEATURES** 

Exceptional recoil properties.

**Fully compliant with ADR regulations** 

Data lines twisted separately for efficient data transfer Plug design to withstand pull out force Superior working life.

Improved terminal design for long life

**MATERIALS** 

Sheath material with excellent resistance to general chemicals and greases.

Durable and reliable

COLOUR

Black cable sheath

**APPLICATION** 

Electronic braking system coil for trucks and trailers.

Working length (m)	Cable Spec (mm²)	Voltage	Standard
3.0	3 x 1.5, 2 x 4.0, 2 x 1.5	24V	ISO 7638
3.5	3 x 1.5, 2 x 4.0, 2 x 1.5	24V	ISO 7638
4.0	3 x 1.5, 2 x 4.0, 2 x 1.5	24V	ISO 7638



#### 24V EBS ISO 7638

24V ED3 130 1030	
Solenoid Control Valve Plus	1
Electronic Plus	2
Electronic Minus	3
Solenoid Control Valve Minus	4
Warning System	5
Data Line	6
Data Line	1





ISO 7638 ISO 4091 ISO 6722

**FEATURES** 

Exceptional recoil properties.

Fully compliant with ADR regulations

Data lines twisted separately for efficient data transfer Plug design to withstand pull out force Superior working life.

Improved terminal design for long life

**MATERIALS** 

Sheath material with excellent resistance to general chemicals and greases.

Durable and reliable

COLOUR

Black cable sheath

**APPLICATION** 

Electronic braking system coil for trucks and trailers.

Working length (m)	Cable Spec (mm²)	Voltage	Standard
3.0	3 x 1.5, 2 x 4.0, 2 x 1.0	24V	ISO 7638
3.5	3 x 1.5, 2 x 4.0, 2 x 1.0	24V	ISO 7638
4.0	3 x 1.5, 2 x 4.0, 2 x 1.0	24V	ISO 7638



#### **24V EBS ISO 7638**

Z-17 ED3 130 1030	
Solenoid Control Valve Plus	1
Electronic Plus	2
Electronic Minus	3
Solenoid Control Valve Minus	4
Warning System	5
Data Line	6
Data Lino	







ISO 12098 ISO 4091 ISO 6722



Exceptional recoil memory.

#### Fully compliant with ADR regulations

Data lines twisted separately for efficient data transfer Plug design to withstand pull out force Superior working life.

Improved terminal design for long life

**MATERIALS** 

Sheath material with excellent resistance to general chemicals and greases.
Durable and reliable

**COLOUR** 

Black cable sheath with colour coded ISO connectors

**APPLICATION** 

13 P coil for trucks and trailers.

Working length (m)	Cable Spec (mm²)	Voltage	Standard
3.0	10x1.0,3 x 1.5	24V	ISO 12098
3.5	10x1.0,3 x 1.5	24V	ISO 12098
4.0	10x1.0,3 x 1.5	24V	ISO 12098







	13 Pin ISO 12098
1	Left hand indicator
2	Right hand indicator
3	Rear fog light
4	Earth
5	Left hand rear position
6	Right hand rear position
7	Stop lights
8	Reversing lights
9	Power supply
10	Worn brake lining sensor
11	Pressure sensor for brakes
12	Axle lifting device
13	Earth for contacts 14 & 15

ISO 12098 ISO 4091 ISO 6722

FEATURES

Exceptional recoil memory.

**Fully compliant with ADR regulations** 

Data lines twisted separately for efficient data transfer Plug design to withstand pull out force Superior working life.

Improved terminal design for long life

MATERIALS

Sheath material with excellent resistance to general chemicals and greases.

Durable and reliable

COLOUR

Black cable sheath with colour coded ISO connectors

**APPLICATION** 

Electronic braking system coil for trucks and trailers.

Working length (m)	Cable Spec (mm²)	Voltage	Standard
3.0	12x1.5,3 x 2.5	24V	ISO 12098
3.5	12x1.5,3 x 2.5	24V	ISO 12098
4.0	12x1.5,3 x 2.5	24V	ISO 12098







	15 Pin ISO 12098
1	Left hand indicator
2	Right hand indicator
3	Rear fog light
4	Earth
5	Left hand rear position
6	Right hand rear position
7	Stop lights
8	Reversing lights
9	Power supply
10	Worn brake lining sensor
11	Pressure sensor for brakes
12	Axle lifting device
13	Earth for contacts 14 & 15
14	Communication data
15	Communication data





ISO 12098 ISO 4091 ISO 6722

FEATURES

Exceptional recoil memory.

Fully compliant with ADR regulations

Data lines twisted separately for efficient data transfer Plug design to withstand pull out force Superior working life.

Improved terminal design for long life

**MATERIALS** 

Sheath material with excellent resistance to general chemicals and greases.
Durable and reliable

**COLOUR** 

Black cable sheath with colour coded ISO connectors

**APPLICATION** 

Electronic braking system coil for trucks and trailers.

Working length (m)	Cable Spec (mm²)	Voltage	Standard
3.0	12x1.0,3 x 1.5	24V	ISO 12098
3.5	12x1.0,3 x 1.5	24V	ISO 12098
4.0	12x1.0,3 x 1.5	24V	ISO 12098







	15 Pin ISO 12098
1	Left hand indicator
2	Right hand indicator
3	Rear fog light
4	Earth
5	Left hand rear position
6	Right hand rear position
7	Stop lights
8	Reversing lights
9	Power supply
10	Worn brake lining sensor
11	Pressure sensor for brakes
12	Axle lifting device
13	Earth for contacts 14 & 15
14	Communication data
15	Communication data



ISO 1185 ISO 3731 ISO 12098

**FEATURES** 

Exceptional recoil memory.

Ergonomic design of plug for ease of installation Plug design to withstand pull out force Superior working life.

Improved terminal design for long life

MATERIALS

Sheath material with excellent resistance to general chemicals and greases.

Durable and reliable

COLOUR

Black cable sheath with colour coded ISO connectors

**APPLICATION** 

Normal and Supplementary electrical connector cables for commercial vehicles

PLUG VARIANTS

Moulded Plug | Plastic Plug

Working length (m)	Cable Spec (mm²)	Voltage	Standard
3.0	6 x 1.5, 1 x 2.5	24V	ISO 1185
3.0	4 x 1.5, 3 x 2.5	24V	ISO 3731
3.5	6 x 1.5, 1 x 2.5	24V	ISO 1185
3.5	4 x 1.5, 3 x 2.5	24V	ISO 3731
4.0	6 x 1.5, 1 x 2.5	24V	ISO 1185
4.0	4 x 1.5, 3 x 2.5	24V	ISO 3731

#### Wiring Diagram Type C

## 24V N ISO 1185

Earth	· · · · · · · <b>1</b>
Left hand rear positi	ion <b>2</b>
Left hand indicator	3
Stop lights	4
Right hand indicato	r <b>5</b>
Right hand rear pos	ition 🜀
Braking control	7

24V S ISO 3731
Earth <b>1</b>
2
Reversing light 3
Power supply 4
Control via earth 5
Power supply 6
Rear fog light 7

#### 15 Pin ISO 12098

1	Left hand indicator
2	Right hand indicator
3	Rear fog light
4	Earth
5	Left hand rear position
6	Right hand rear position
7	Stop lights
8	Reversing lights
9	Power supply
10	Worn brake lining sensor
11	Pressure sensor for brakes
12	Axle lifting device
13	Earth for contacts 14 & 15
14	Communication data
15	Communication data





ISO 1185 ISO 3731 ISO 12098

**FEATURES** 

Exceptional recoil memory.

Ergonomic design of plug for ease of installation

Plug design to withstand pull out force

Superior working life.

Improved terminal design for long life

Sheath material with excellent resistance to general chemicals and greases.

Durable and reliable

COLOUR

**MATERIALS** 

Black cable sheath with colour coded ISO connectors

**APPLICATION** 

Normal and Supplementary electrical connector cables for commercial vehicles

**PLUG VARIANTS** 

Moulded Plug | Plastic Plug | Metal Plug

Working length (m)	Cable Spec (mm²)	Voltage	Standard
3.0	6 x 1.0, 1 x 1.5	24V	ISO 1185
3.0	4 x 1.0, 3 x 1.5	24V	ISO 3731
3.5	6 x 1.0, 1 x 1.5	24V	ISO 1185
3.5	4 x 1.0, 3 x 1.5	24V	ISO 3731
4.0	6 x 1.0, 1 x 1.5	24V	ISO 1185
4.0	4 x 1.0, 3 x 1.5	24V	ISO 3731

#### Wiring Diagram Type C

#### 15 Pin ISO 12098

_			
		24V	N ISO 1185
Earth			1
Left hand re	ar positi	on	· · <b>2</b>
Left hand in	dicator		3
Stop lights			4
Right hand i	indicato	r	6
Right hand i	rear posi	tion	6
Braking con	trol		· 7
			_

Stop lights4
Right hand indicator 5
Right hand rear position 6
Braking control7
24V S ISO 3731
<b>24V S ISO 3731</b> Earth 1

Control via earth -----Power supply - - - - 6 Rear fog light -----

	2	Right hand indicator
	3	Rear fog light
	4	Earth
	5	Left hand rear position
	6	Right hand rear position
	7	Stop lights
.721	8	Reversing lights
3731	9	Power supply
	10	Worn brake lining sensor
	11	Pressure sensor for brakes
	12	Axle lifting device
	13	Earth for contacts 14 & 15
	14	Communication data
	15	Communication data

Left hand indicator





ISO 1724 ISO 6722

**FEATURES** 

Exceptional recoil memory.

Ergonomic design of plug for ease of installation Plug design to withstand pull out force Superior working life.

Improved terminal design for long life

MATERIALS

Sheath material with excellent resistance to general chemicals and greases.

Durable and reliable

**COLOUR** 

Black cable sheath with colour coded ISO connectors

**APPLICATION** 

Normal and Supplementary electrical connector cables for commercial vehicles / Towing Vehicles

PLUG VARIANTS

Metal Plug | Plastic Plug

Working length (m)	Cable Spec (mm²)	Voltage	Standard
3.0	6 x 1.0, 1 x 1.5	12V	ISO 1724
3.5	6 x 1.0, 1 x 1.5	12V	ISO 1724
4.0	6 x 1.0, 1 x 1.5	12V	ISO 1724



Earth	1
Left hand rear position	2
Left hand indicator	3
Stop lights	4
Right hand indicator	5
Right hand rear position	6
Braking control	





SAE J 560 SAE J 2394

FEATURES

Exceptional recoil memory.
Ergonomic design of plug for ease of installation
Plug design to withstand pull out force
Superior working life.
Improved terminal design for long life

**MATERIALS** 

Sheath material with excellent resistance to general chemicals and greases.

Durable and reliable Aluminium plug

COLOUR

Green cable sheath with SAE connectors

**APPLICATION** 

ABS and Lighting cables for Heavy commercial vehicles.

Working length (m)	Cable Spec (mm²)	Voltage	Standard
3.0	3.0 X 4, 5.0X2,8.0X1	12V	SAE J 560
3.5	3.0 X 4, 5.0X2,8.0X1	12V	SAE J 560
4.0	3.0 X 4, 5.0X2,8.0X1	12V	SAE J 560



#### 12V SAE J 560

Earth <b>1</b>
Left hand rear position 2
Left hand indicator 3
Stop lights 4
Right hand indicator 5
Right hand rear position 6
Braking control 7





## Plug & Socket Accessories

#### **7 CORE PLUG**

VOLTAGE	STANDARD	PLUG	TERMINATION	IMAGE
24V	ISO 1185	HEAT STABILIZED PLASTIC		-
24V	ISO 1185	HEAT STABILIZED PLASTIC	=	-
24V	ISO 3731	HEAT STABILIZED PLASTIC		
24V	ISO 3731	HEAT STABILIZED PLASTIC	=	
24V	ISO 1185	ALUMINIUM		N
24V	ISO 3731	ALUMINIUM		N

#### **7 CORE SOCKETS**

VOLTAGE	STANDARD	SOCKET	TERMINATION	IMAGE
24V	ISO 1185	HEAT STABILIZED PLASTIC	====	
24V	ISO 1185	HEAT STABILIZED PLASTIC		
24V	ISO 1185	ALUMINIUM		
24V	ISO 3731	HEAT STABILIZED PLASTIC	=	
24V	ISO 3731	HEAT STABILIZED PLASTIC		<b>(</b> (1)
24V	3881	ALUMINIUM		

SCREW TERMINALS TO CRIMP TERMINAL

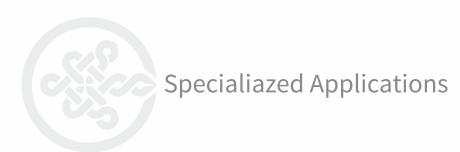
## Plug & Socket Accessories

#### 5/7 POLE ABS / EBS PLUG

VOLTAGE	STANDARD	PLUG	TERMINATION	IMAGE
24V	ISO 7638	HEAT STABILIZED PLASTIC		
24V	ISO 7638	HEAT STABILIZED PLASTIC	=	601
24V	ISO 12098	HEAT STABILIZED PLASTIC	<del>-</del> 73	600
24V	ISO 12098	HEAT STABILIZED PLASTIC	<b>(0</b> )	<b>6</b>

#### **5/7 POLE ABS / EBS SOCKETS**

VOLTAGE	STANDARD	SOCKETS	TERMINATION	IMAGE
24V	ISO 7638	HEAT STABILIZED PLASTIC	=	<b>F</b>
24V	ISO 7638	HEAT STABILIZED PLASTIC		
24V	ISO 12098	HEAT STABILIZED PLASTIC	#7	
24V	ISO 12098	HEAT STABILIZED PLASTIC		



VOLTAGE	DESCRIPTION	TERMINATION	MATERIAL	IMAGE
12V	7 Pole plug according to ISO 1724	2m_O	Heat stabilized Plastic	
12V	7 Pole plug according to ISO 1724	2m_ O	Aluminium	
12V	7 Pole socket according to ISO 1724		Heat stabilized Plastic	
12V	7 Pole socket according to ISO 1724	9m O	Aluminium	



STANDARD	ISO 1185 ISO 3731 ISO 7638 ISO 12098
FEATURES	13P, 15P, ABS or EBS PARK SOCKET 7 P PARK SOCKET

## 13P, 15P, ABS and EBS PARKING SOCKET



### **7P PARKING SOCKET**



## ADR Cables & Wires

	FEATURES
Standard	TUV Approved for A.D.R. Applications all cables are printed with TUV type-test approval mark
Features	Specially developed & approved durable sheath Cores insulated to minimum of ISO 6722 Excellent short-term dielectric strength
Material	Special sheathing material ensures resistance to disel, Kerosene, Dilute Acids & Alkalis
Colour	Black cable sheath with white print
Application	Cables & Wires for trucks & trailer wiring systems

Wire Cross Section	Temperature Class	Colour Coding	
1.0	Α		
1.25	Α		
1.5	Α		
2.0	Α		
2.5	Α		
3.0	Α		
4.0	Α		

### Cables

No of cores	Standard	Wire Cross Section	Temperature Class
7	ISO 1185	1.5 x 6 + 2.5 x 1	Α
7	ISO 1185	1.0 x 6 + 1.5 x 1	Α
7	ISO 3731	1.5 x 4 + 2.5 x 3	Α
7	ISO 3731	1.0 x 4 + 1.5 x 3	Α

### Our range of ADR approved cables

No of Cores	Standard	Wire Cross Section	Temperature Class
Cores	<u> </u>		Class
7	ISO 7638	1.5 x 3 + 4.0 x 2 + 1.5 x 2	Α
7	ISO 7638	1.5 x 3 + 4.0 x 2 + 1.0 x 2	Α
5	ISO 7638	1.5 x 3 + 4.0 x 2	Α
5	ISO 7638	1.5 x 3 + 4.0 x 2	Α
15	ISO 12098	1.5 x 12 +2.5 x 3	Α
15	ISO 12098	1.0 x 12 +1.5 x 3	Α

## **Customised Solutions**





Customised to Special Requirements





We Can Supply Sheath Cables to Meet Class B and Class C Requirements



STANDARD	ISO 7375
FEATURES	High performance air brake coil with high flexibility Max operating pressure 10 Bar M18 female thread to receive thread adapter Meets performance specification of DIN 74323 and ISO 7375
Materials	Blended TPU Durable and reliable Brass / Steel End Fittings
Colour	Black, Yellow, Red
Application	Air brake solution for trucks and trailers

Working length	Female Thread	Tube Colour
3.5	2 x M18F	
4.0	2 x M18F	





STANDARD	ISO 7375
FEATURES	High performance air brake coil with high flexibility Max operating pressure 10 Bar M18 female thread to receive thread adapter Meets performance specification of DIN 74323 and ISO 7375
Materials	Nylon Durable and reliable Brass / Steel End Fittings
Colour	Black, Yellow, Red
Application	Air brake solution for trucks and trailers

Working length	Female Thread	Tube Colour
3.5	2 x M18F	
4.0	2 x M18F	





















Certificates

## Cable Testing Facility



## LIST OF TESTING EQUIPMENT

**Torsion Machine** 

Articulation Machine

cyclic extension

Ageing oven

Capacitance and Resistance of wire

Cyclic current Machine -

(DC Regulated power supply upto 30Amp)

High Voltage upto 5kv

Cord Flexing Machine (Cyclic Bending Test)

Abrasion

**Endurance test machine for Connectors** 

Milipore testing machine

Thermal Shock Chamber

High pressure water jet Machine

Flame propagation Machine

Rapid I

Profile Projector

Moisture Analyser

Roughness Tester

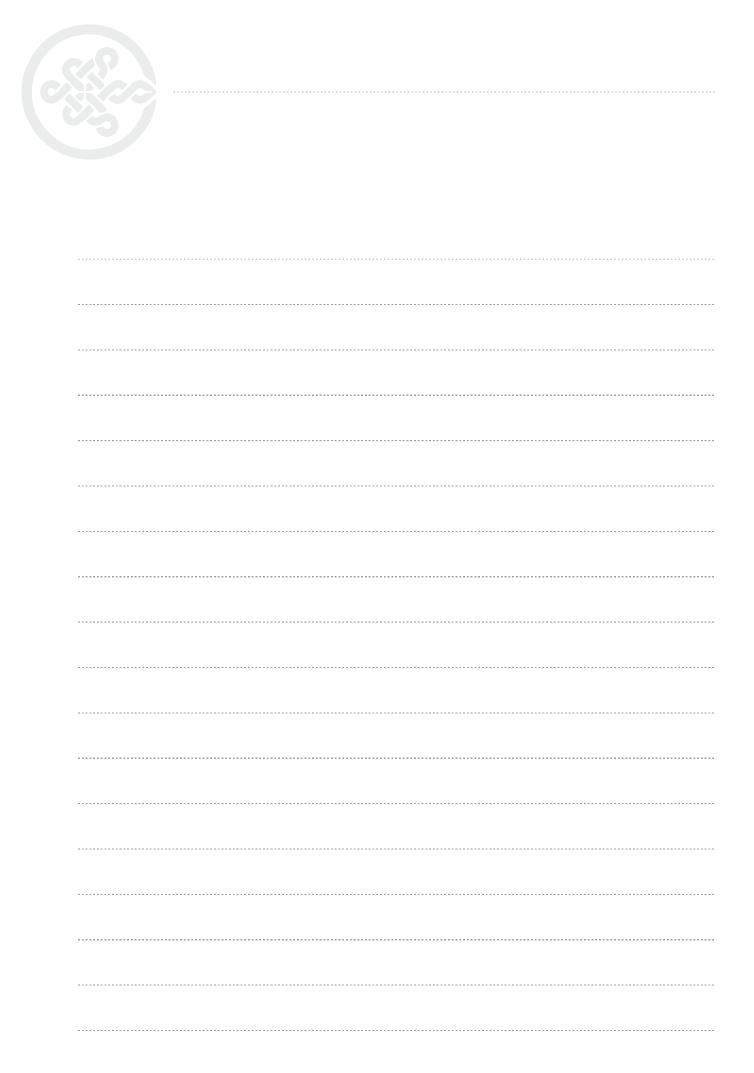
Digital push Pull guage upto 40n

Manual push Pull guage upto 500n

**DFT METER** 

Tension meter

LCR meter





For trade enquiries and technical support:

