



You can never have too many good connections.



RECTUS, TEMA and NYCOIL are RECTUS Group brands

TEMA Complete Set

System 100

Nominal Diameter

1,2

Technical description

The design of the TEMA System 100 allows the control of static and dynamic pressures as well as vacuums. With the integrated self-venting device (as standard), it is easy to evacuate any air bubbles. This guarantees an accurate display of the measured value, especially with dynamic pressures. The measuring nipples are available with various connection options. They have very small dimensions and can thus be fitted very easily to the equipment. Thanks to the design and choice of materials, the nipples are maintenance-free. The measuring device with the pressure gauge is fitted with a TEMA quick connect coupling. This guarantees coupling to the

measuring nipples in a matter of seconds. With the shut-off device in the plug and in the body of the coupling, the TEMA System 100 allows a dry break, during coupling as well as during uncoupling. For measuring at a distance, a flexible extension cable is available; this can be coupled between the measuring nipple and the measuring system. Thanks to its wide range of connections, the TEMA System 100 is a versatile and flexible measuring system.

Maximum working pressure
 Measuring nipple T120: 40 MPa (400 bar)
 Other parts: 60 MPa (600 bar)



Complete Hydraulics Set

TEMA System 100

Description	Part Number	DS
The TEMA System 100 Complete Set is delivered in a plastic case and contains the following parts:		
1 piece measuring handle T101-2 and pressure gauge of your choice*	T101	☐
1 piece measuring nipple T120	T104	☐
1 piece measuring cable T130, length 2.5 m, complete	T105	☐
1 piece adapter T135, G 1/4" IG x G 1/8" AG	T110	☐
1 piece adapter T136, G 1/8" IG x G 1/4" AG	T111	☐
In the measuring case there is additional room for two further pressure gauges as well as an adapter T139. If two pressure gauges are required, the part number is, for example, T106-13 (Complete Set with one pressure gauge 0-100 bar and one pressure gauge 0-40 bar).	T112	☐
	T113	☐
	T114	☐
	T106	☐
	T107	☐
	T108	☐
	T109	☐

Additional Equipment/Pneumatics

TEMA System 100

Description	L mm	G mm	Wrench size	Weight g	Max. working pressure bar	Part Number	DS
1 Measuring nipple	36	G 1/8"	15	20	20	T11410 MN-125	☐
1 Coupling	37	G 1/8"	15	40	50	T1100 N	☐
Pressure gauge: see Page 423.							

DS = Delivery Status: in stock on short call medium term delivery

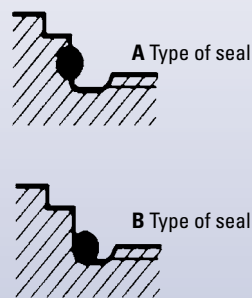
Measuring Nipples



Technical description
Thanks to their advanced design, the measuring nipples are reliable components in our measuring device. They are made of hardened steel. The measuring nipples are maintenance free and are designed for temperatures from -40°C to +110°C. The integrated stop valve seals up to a 90% vacuum. All mechanical parts in the measuring nipple are made of corrosion proof materials. An O-ring is integrated in the thread of the measuring nipple as a seal. Available with two different types of covering cap.

- Fully sealed
- Maintenance-free
- Metal-to-metal seal

Maximum working pressure
Measuring nipple T120: 40 MPa (400 bar)
Other parts: 60 MPa (600 bar)



Pressure Gauge/Measuring Handle/Self-Venting Block



Pressure gauge

- Filled with glycerine – suitable for temperatures to -40°C
- Special seal – quick change
- Measuring accuracy ± 1.6%
- Diameter 63 mm
- Pressure gauge connection G 1/4", male thread
- Scale with double graduation (MPa + bar)

Measuring handle
Measuring handle T101-2 is used for low pressures up to max. 60 bar.

- System 100 – time-saving quick connect couplings
- Shut-off valve in coupling body and nipple – dry break

Measuring handle T101-21A can be coupled even under full working pressure.

Self-venting block
In order to obtain exact measured values (particularly with dynamic pressure measurements), it is essential that there should be no air bubbles trapped between the measuring nipple and the pressure gauge. This can be checked simply and effectively with the TEMA 100 Measuring System, since the air bubbles can easily be removed. It is possible to vent the system at maximum working pressure by using the venting screw.

Measuring Nipples

TEMA System 100

	G Male thread	Type of seal	L	I	Hex SW	Weight g	Part number with plastic cap	Part number with metal cap	DS
	G 1/8"	A	29	7,5	15	20	T120	T120-126	<input type="checkbox"/>
	G 1/4"	A	36	11	18	35	T121-125	T121-126	<input type="checkbox"/>
	G 1/4"	B	36	11	18	35	T122-125	T122-126	<input type="checkbox"/>
	M 12 x 1,5	A	36	11	18	35	T123-125	T123-126	<input type="checkbox"/>
	M 14 x 1,5	A	36	11	20	40	T124-125	T124-126	<input type="checkbox"/>
	M 10 x 1	A	29	7,5	15	40	T128-125	T128-126	<input type="checkbox"/>

* Made of AISI 316 stainless steel.

Measuring nipple accessories

TEMA System 100

Part	Part Number	DS
Plastic cap made of soft PVC	T125	<input type="checkbox"/>
Metal cap with O-ring seal. Quick-lock type coupling on nipple.	T126K	<input type="checkbox"/>
Extra safety. Up to 75 MPa (750 bar)		
Quick connect coupling for measuring nipple with integrated shut-off valve.	T150	<input type="checkbox"/>
Seal made of nitrile. G 1/8 male thread		
Coupling body with measuring nipple, angle 90°	T150-90	<input type="checkbox"/>
Adapter coupling G1/4" IG	T150-137	<input type="checkbox"/>

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Pressure gauge

TEMA System 100

Dimension Pressure gauge + measuring handle:	Pressure Range	Part Number	DS
	-1 to +1,5 bar	TMAN 04	<input type="checkbox"/>
	-1 to +15 bar	TMAN 05	<input type="checkbox"/>
	0 to +6 bar	TMAN 15	<input type="checkbox"/>
	0 to +10 bar	TMAN 10	<input type="checkbox"/>
	0 to +16 bar	TMAN 11	<input type="checkbox"/>
	0 to +25 bar	TMAN 12	<input type="checkbox"/>
	0 to +40 bar	TMAN 13	<input type="checkbox"/>
	0 to +60 bar	TMAN 14	<input type="checkbox"/>
	0 to +100 bar	TMAN 06	<input type="checkbox"/>
	0 to +250 bar	TMAN 07	<input type="checkbox"/>
0 to +400 bar	TMAN 08	<input type="checkbox"/>	
0 to +600 bar	TMAN 09	<input type="checkbox"/>	
Rubber guard for pressure gauge	T100-40	<input type="checkbox"/>	

Measuring handle/Self-venting block

TEMA System 100

Part	Part Number	DS
Measuring handle	T101-2	<input type="checkbox"/>
Measuring handle can be coupled under pressure	T101-21A	<input type="checkbox"/>
Self-venting block	T101-3	<input type="checkbox"/>

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High-Pressure Hoses

Technical description

TEMA high-pressure hose – produced for measurements and mini-hydraulic systems. Exact selection of materials and production under strict control contribute to the satisfaction and reliable safety of the product. Max. working pressure 630 bar.

Material

Inner and outer hose: high-quality POLYAMIDE

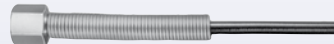
Pressure carrier: KEVLAR

Caution: If the hoses are to be used for compressed air, this must be mentioned in the order.

Advantages

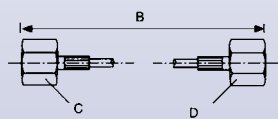
- Remains flexible, even under full working pressure, thanks to its small external dimensions and a suitable choice of materials.
- Resistant to all mineral and most synthetic oils
- Resistant to ageing
- No increase in volume (no differences in measurements)
- Temperature range from -40°C to +100°C

In order to achieve optimal durability, the hoses can be strengthened with a spring at each end. Add-on code "F" after the item number of each connection.



Ordering example for a complete high-pressure hose:

	B	C	D
T200K PA11 hose	1,6 Total- length m	T210F G 1/8 female thread + spring	T240 Pressure gauge connection G 1/4"










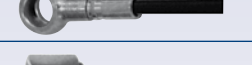
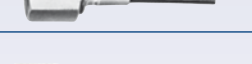
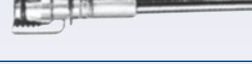



Type	Working Pressure	Burst Pressure	Inner dimensions	Outer dimensions
T200K	630 bar	2000 bar	2,0 mm	4,9 mm
T400K	500 bar	2000 bar	4,1 mm	8,0 mm

Temperature range from -40°C to +93°C.

Connections

TEMA System 100 High-pressure Hoses

Caution! The hoses are produced in various lengths. Please specify hose and/or total length incl. connecting fittings. Design subject to alterations.






Part	ND	Part Number	DS
	2	T210	■
	2	T211	■
	2	T220	■
	2	T212	■
	2	T213	■
	2	T215	■
	4	T415	■
	2	T216	■
	2	T217	■
	4	T417	■
	2	T262L	■
	2	T230	■
	2	T231	■
	2	T235	■
	2	T238	■
	2	T240	■
	2	T260L	■
	2	T260S	■
	2	T261L	■
	2	T261S	■

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Connections

TEMA System 100 High-pressure Hoses

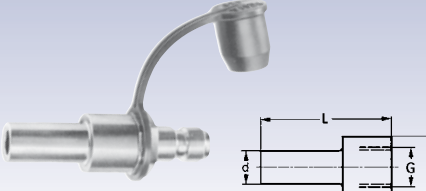
Caution! The hoses are produced in various lengths. Please specify hose and/or total length incl. connecting fittings. Design subject to alterations.

Part	Part Number	DS
	T270	■
	T272	■
	T271	■
	T280	■
	T281	■

Measuring pipe socket

TEMA System 100


Measuring nipples can be mounted very easily on machines using measuring supports or screwed pipe joints. Also available with T126 K metal protection cap (see page 432).

L	D	G	d	Pressure width	Internal thread	Part Number	Part Number incl. measuring nipple	DS
	32	15	1/8" i.	6	L/S	T160-1	T160	■
	32	15	1/8" i.	8	L/S	T161-1	T161	■
	32	15	1/8" i.	10	L/S	T162-1	T162	■
	32	15	1/8" i.	12	L/S	T163-1	T163	■
	32	15	1/8" i.	14	S	T164-1	T164	■
	32	15	1/8" i.	15	L	T165-1	T165	■

Measuring cable






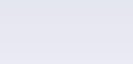



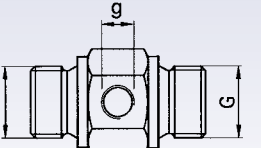
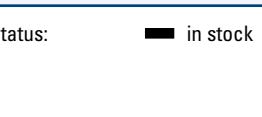
TEMA System 100

Measuring cables in other designs and lengths on request.

Part	Part Number	DS
	T130	■
Supplied as standard with measuring nipple (T120) and coupling (T150); 2.5 m.		
Measuring cable for coupling the measuring handle T101-2 to measuring nipples.	T131	■
Supplied as standard with measuring nipple (T120) and coupling (T150); 5 m.		

Accessories

TEMA System 100

Part	Part Number	DS
	T135	■
	T136	■
	T137	■
	T139	■
	T140	■
	T101-1	■
	T100-40	■
	T276	■
	T277	■
	TDNT2-1	■
	TDNT3-1	■
	TDNT4-1	■
	TDNT6-1	■
	TDNT7-1	■

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