



maier

**Rotary Joints**

*Solutions for safe transfer of fluids*



**MP Series**

**Multi-passage joint type MP**

- Design with radial shaft seal with elastic contact. Seal design to be selected according required media and performance.
- Housing and rotor material is depending of the application data. For example the rotor can be of carbon or stainless steel, while the housing can be of brass, aluminium, carbon or stainless steel. The rotor sealing areas are coated with metal ceramics.
- Threaded connections are G/BSP (ISO 228). Other threads such as NPT (ANSI) are available on request.
- Ball bearings lubricated for lifetime.
- Flange of the rotor can be custom-made on request.
- One or two threaded holes in the housing are provided for anti-rotation device.
- For multi-media applications double seals and drain holes are provided to prevent cross contamination of fluids.
- By means of many possible variations of sizes, materials and seals MP series covers a wide scope of applications. MP rotary joints can be combined with a slip ring or another rotary joint or with hollow shaft rotary joints or can be designed with multi-ports at the housing, just to give examples of various possibilities.



Seal design to be selected

**MP** multi-passage joints are suitable to transfer:

- Hydraulic oil
- Water
- Air
- Gas
- Vacuum

→ Dimensions on pages 4 and 5

**Combijoint type MPE**

MP rotary joint with two or four passages and slip ring with gold/gold contacts.

→ Page 6

**Hollow shaft type MPH**

Simplest version of series MP with 1, 2 or more passages and hollow shaft. The radial connection at the housing corresponds to the customer's shaft passage. The technical characteristics are the same like series MP. Multi-passage versions are available on request.

→ Page 7

**Type MPT**

2 passages with 2 mechanical seals. Transfer of 1 fluid in and out, suitable for higher speed by means of mechanical seal. Custom made design on request.

→ Page 8

**Type MPV**

1, 2, 3, 4 (or more) passages design with gap seal bushes – "hydrostatic relief" to transfer the medium at high speed and high pressure simultaneously. Gap seals create "controlled leakage" recirculated without pressure to the oil hydraulic power unit tank. With this technology it is possible to transfer the medium at high speed and high pressure simultaneously. Types MPA and MPW are suitable for air and water.

→ Pages 9 - 10 - 11



## Application data

Series:	<b>MP - MPE - MPH</b>	<b>MPT</b>	<b>MPV MPA - MPW</b>
▶ Pressure PN max bar*:	Hydraulic Oil: 250 Gas, Air, Water: 10	Hydraulic Oil: 10 Water: 10	Hydraulic Oil: 350 Air, Water: 10
▶ Speed max* min <sup>-1</sup> *:	200	1,000	Hydraulic Oil: 10,000 Air, Water: 5,000
▶ Media:	Hydraulic Oil, Water, Air, Gas, Vacuum	Water, Hydraulic Oil	Hydraulic Oil Air, Water
▶ Passages:	2...10 (MP) ; 2...4 (MPE); 1...2 (MPH) or more	2	1...4 or more
▶ Nominal Diameter DN mm:	06...25...	06...20...	06...20...
▶ Housing material:	Carbon Steel, Stainless Steel Aluminium, Brass	Carbon Steel, Stainless Steel Aluminium, Brass	Carbon Steel, Stainless Steel Aluminium, Brass
▶ Temperature max °C:	80	80	80
▶ Threads:	G/BSP (ISO 228)	G/BSP (ISO 228)	G/BSP (ISO 228)
▶ Custom made:	On request	On request	On request

\* Avoid combination of maximum values. Higher values and other media on request.

## Ordering instructions

Example:	<b>MP</b>	<b>04</b>	<b>06</b>	<b>A</b>	<b>- XXX</b>
Number of passages From 02 to 10**	▶				
Nominal Diameter DN mm (inch) 06 (G 1/4"), 10 (G 3/8"), 15 (G 1/2"), 20 (G 3/4"), 25 (G 1")		▶	▶		
A Rotor in stainless steel, housing in brass B Rotor in stainless steel, housing in aluminium C Rotor and housing in stainless steel D Rotor in stainless steel, housing in carbon steel E Rotor in carbon steel, housing in aluminium G Rotor and housing in carbon steel					
Consecutive number for special designs, numbering by factory	▶	▶			

\*\* More passages on request



## ► Characteristics

Type MP is equipped with radial shaft seals for elastic contact. One or several media can be transferred contemporaneously through 2 to 10 passages. The sealing elements tighten the radial transfer between housing and rotor. The product is available according to catalog dimensions or on request with custom made flanges and/or axial hole for electric cables, axial inlets and/or radial outlets, drains between different media. Type MP can be used for individual combinations on request. The dimensions for 2 to 10 passages shown in the table as standard design are a first indication of the technical potential of this type. Housing design with radial connections G/BSP (ISO 228).

## ► Application Data

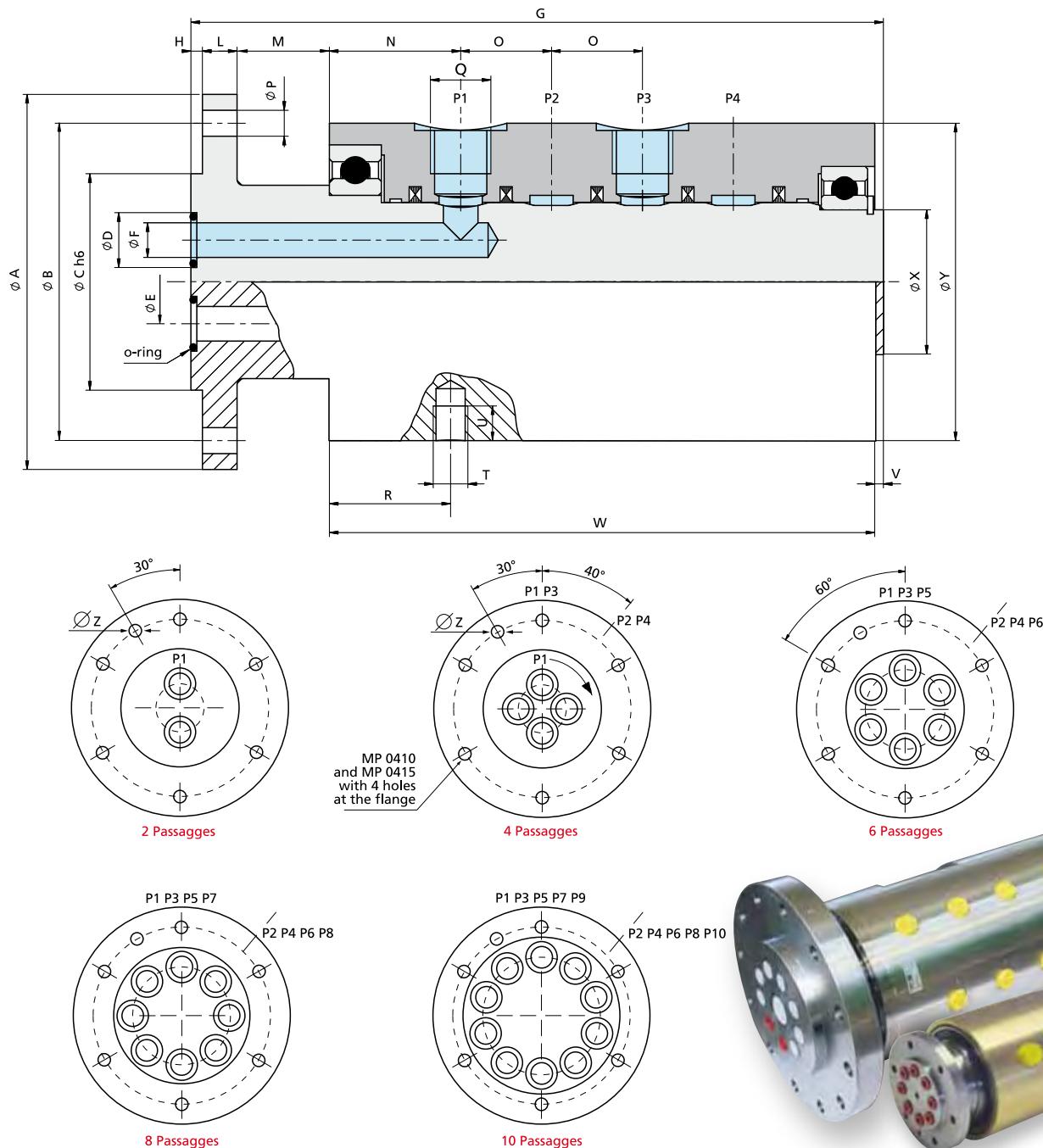
Pressure PN max: 250 bar\* for Hydraulic Oil  
10 bar for Gas, Air, Water

Speed max: 200 min<sup>-1</sup>\*

Temperature max: 80°C

Filtration ratio: 50 µm

\* Avoid combination of maximum values. For correct selection get in contact with the factory.



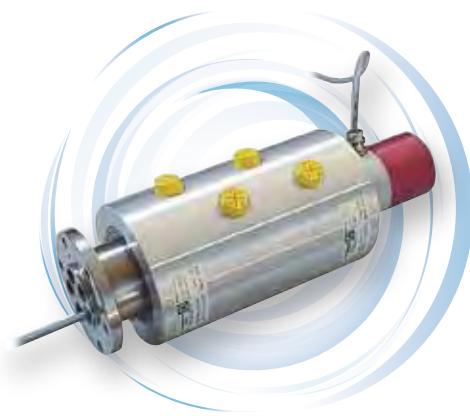
## ► Dimensions

Type	MP0206	MP0406	MP0606	MP0806	MP0210	MP0410	MP0610	MP0810
Cod. Art. A	1119X111	1119X311	1119X511	1119X611	1119X121	1119D321	1119X521	1119X621
Cod. Art. B	1119X112	1119X312	1119X512	1119X612	1119X122	1119D322	1119X522	1119X622
Cod. Art. C	1119X113	1119X313	1119X513	1119X613	1119X123	1119D323	1119X523	1119X623
A	68	68	73	78	73	110	83	93
B	55	55	60	65	60	90	70	80
C	35	35	40	50	45	60	55	65
D	11	11	11	11	16	16	16	16
E	20	20	25	35	25	24,5	35	45
F	6	6	6	6	9	9	9	9
X	30	30	35	45	35	35	45	55
Y	84	84	88	98	88	88	103	118
G	123	161	202	245	135	190	245	298
H	5	5	5	5	5	4	5	5
L	8	8	8	10	8	10	10	12
M	21	21	21	21	21	26	30	30
N	34	34	35	36	37	37	38	40
O	19	19	19	19	24	24	24	24
P	6,5 (x6)	6,5 (x4)	8,5 (x6)	8,5 (x6)				
Q	G1/4"	G1/4"	G1/4"	G1/4"	G3/8"	G3/8"	G3/8"	G3/8"
R	34	34	35	36	37	37	38	40
T	M8	M10	M10	M10	M8	M10	M10	M10
U	10	10	10	10	10	10	10	10
V	3	3	4	4	4	4	4	5
W	86	124	164	205	97	145	196	248
Z	4,5	4,5	4,5	4,5	4,5	6,5	4,5	4,5

## ► Dimensions

Type	MP0215	MP0415	MP0615	MP0815	MP0220	MP0420	MP0620	MP0225	MP0425
Cod. Art. A	1119X131	1119D331	1119X531	1119X631	1119X141	1119X341	1119X541	1119X151	1119X351
Cod. Art. B	1119X132	1119D332	1119X532	1119X632	1119X142	1119X342	1119X542	1119X152	1119X352
Cod. Art. C	1119X133	1119D333	1119X533	1119X633	1119X143	1119X343	1119X543	1119X153	1119X353
A	88	130	98	123	108	108	128	123	123
B	72	110	82	102	90	90	110	102	102
C	55	75	65	80	65	65	85	80	80
D	19	19	19	19	24	24	24	29	29
E	30	29	42	55	37	37	55	45	45
F	12	12	12	12	18	18	18	22	22
X	45	45	60	70	60	60	80	75	75
Y	108	108	123	138	128	128	148	153	153
G	159	215	265	336	174	242	320	198	274
H	5	4	5	5	5	5	5	5	5
L	10	12	10	12	12	12	14	14	14
M	32	32	32	38	38	38	40	45	45
N	40	40	37	40	40	40	40	45	45
O	28	28	28	28	34	34	34	38	38
P	8,5 (x6)	9 (x4)	8,5 (x6)	10,5 (x6)	10,5 (x6)	10,5 (x6)	10,5 (x6)	12,5 (x6)	12,5 (x6)
Q	G1/2"	G1/2"	G1/2"	G1/2"	G3/4"	G3/4"	G3/4"	G1"	G1"
R	40	40	37	40	40	40	40	45	45
T	M10	M12	M12	M12	M12	M12	M12	M12	M12
U	10	12	12	12	12	12	12	12	12
V	4	4	5	5	5	5	6	6	6
W	108	164	214	276	114	182	255	128	204
Z	4,5	10,5	4,5	4,5	4,5	4,5	4,5	4,5	4,5

MP1006-MP1010-MP1015-MP0820-MP1020-MP0625-MP0825-MP1025: dimensions on request.  
Subject to technical change without notice.



## ► Characteristics

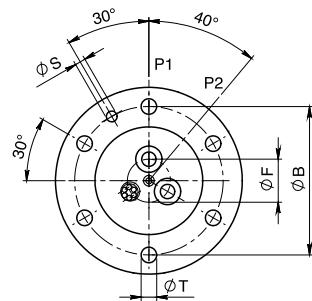
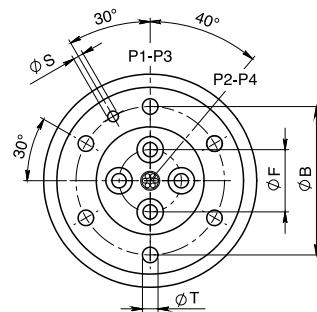
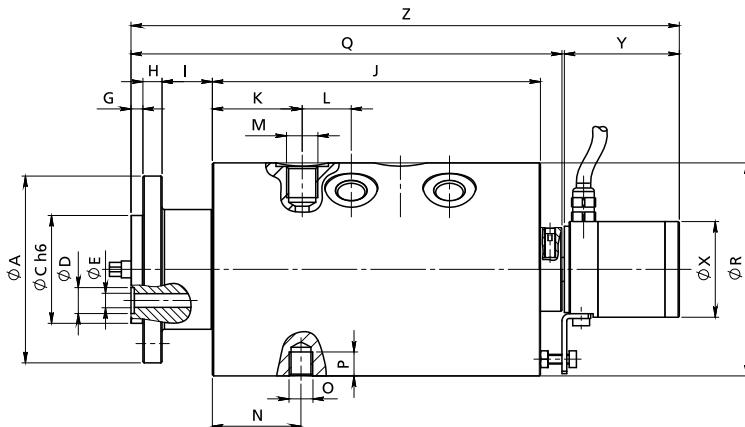
Type MPE is a multi-passage rotary joint called Combijoint with 2 or 4 passages including a slip ring with gold/gold contacts for 6/12/18 poles. The slip ring can transfer power, signals, digital data, field bus. Standard protection is IP 64. The fluid transfer can be realised with type MP02 or MP04 and is suitable for hydraulic oil, water, gas or air and with central bore for electric cables.

Housing design with radial connections G/BSP (ISO 228).

## ► Application data

Pressure PN max:	→ 250 bar* for Hydraulic Oil 10 bar for Gas, Air, Water
Speed max:	→ 200 min <sup>-1</sup> *
Temperature max:	→ 80°C
Filtration ratio:	→ 50 µm
Voltage:	→ mV – 500V
Current:	→ mA – 24A

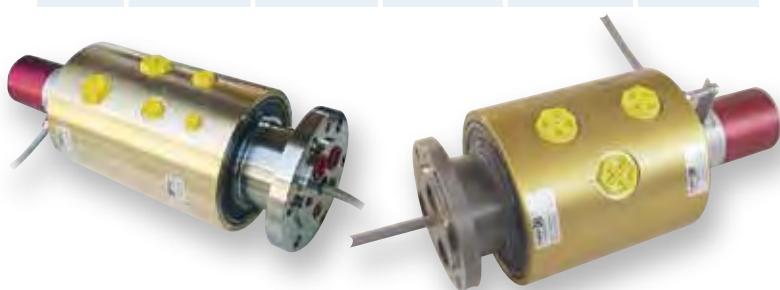
\* Avoid combination of maximum values. For correct selection get in contact with the factory.



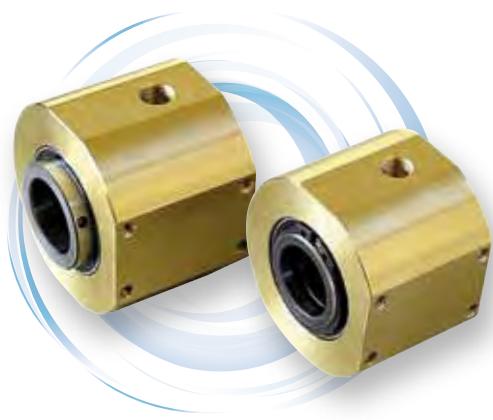
## ► Dimensions

Type	MPE0206	MPE0210	MPE0406	MPE0410
Cod. Art. A	1119E111	1119E121	1119E311	1119E321
Cod. Art. B	1119E112	1119E122	1119E312	1119E322
Cod. Art. C	1119E113	1119E123	1119E313	1119E323
A	78	78	78	110
B	62	62	62	90
C	45	45	45	60
D	11	16	11	16
E	6	9	6	9
F	18	24	26	32
G	5	5	5	5
H	8	8	8	10
I	21	21	21	28
J	96	110	137	162
K	37.5	41	37.5	41
L	20.5	26	20.5	26
M	G1/4"	G3/8"	G1/4"	G3/8"
N	37	39	37	39
O	M8	M8	M10	M10
P	10	10	10	10
Q	140	155	180	215
R	78	88	88	93
S	4.5	4.5	4.5	6.5
T	6.5 (x6)	6.5 (x6)	6.5 (x6)	6.5 (x6)

Type	MPE0206	MPE0210	MPE0406	MPE0410
Cod. Art. A	1119E111	1119E121	1119E311	1119E321
Cod. Art. B	1119E112	1119E122	1119E312	1119E322
Cod. Art. C	1119E113	1119E123	1119E313	1119E323
X	Y	SRK	Z	Z
40	53	40/6	195	210
40	77	40/12	219	234
40	101	40/18	243	258
60	58	60/6	200	215
60	82	60/12	224	239
60	106	60/18	248	263
80	65	80/6	207	222
80	90	80/12	232	247
80	115	80/18	257	272
			272	297
				332



Subject to technical change without notice.



## Characteristics

Type MPH is designed as hollow shaft rotary joint, suitable for an over-the-shaft mounting or shaft ends. The radial seals operate on a shaft sleeve. Sealing technology uses radial seal elements, which can be exchanged if worn.

Also available for more than 1 passage.

Housing design with radial connections G/BSP (ISO 228).

## Application data

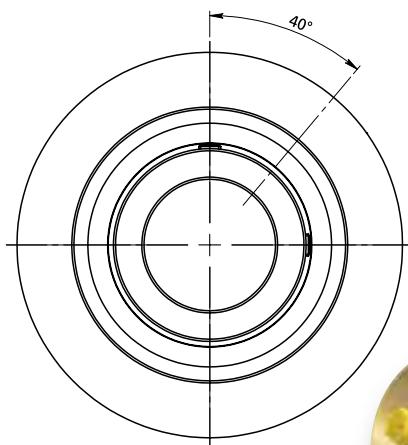
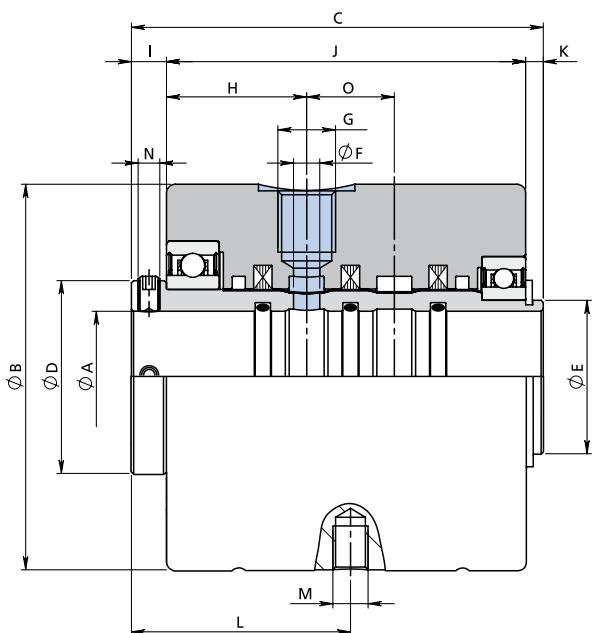
Pressure pn max: → 250 bar\* for Hydraulic Oil  
10 bar for Gas, Air, Water

Speed max: → 200 min<sup>-1</sup>\*

Temperature max: → 80°C

Filtration ratio: → 50 µm

\* Avoid combination of maximum values. For correct selection get in contact with the factory.



## Dimensions

Type	MPH 0106030	MPH 0206030	MPH 0110040	MPH 0210040	MPH 0110050	MPH 0210050	MPH 0115060	MPH 0215060	MPH 0115080	MPH 0215080	MPH 0120100	MPH 0220100
Cod. Art. A	1119H011030	1119H111030	1119H021040	1119H121040	1119H021050	1119H121050	1119H031060	1119H131060	1119H031080	1119H131080	1119H041100	1119H141100
Cod. Art. B	1119H012030	1119H112030	1119H022040	1119H122040	1119H022050	1119H122050	1119H032060	1119H132060	1119H032080	1119H132080	1119H042100	1119H142100
Cod. Art. C	1119H013030	1119H113030	1119H023040	1119H123040	1119H023050	1119H123050	1119H033060	1119H133060	1119H033080	1119H133080	1119H043100	1119H143100
A	ø30F6	ø30F6	ø40F6	ø40F6	ø50F6	ø50F6	ø60F6	ø60F6	ø80F6	ø80F6	ø100F6	ø100F6
B	ø88	ø88	ø98	ø98	ø108	ø108	ø128	ø128	ø153	ø153	ø183	ø183
C	74	94	82	106	84	108	92	120	90	118	108	142
D	ø44	ø44	ø54	ø54	ø68	ø68	ø78	ø78	ø98	ø98	ø108	ø108
E	ø35	ø35	ø45	ø45	ø55	ø55	ø65	ø65	ø90	ø90	ø110	ø110
F	ø6	ø6	ø10	ø10	ø10	ø10	ø15	ø15	ø15	ø15	ø20	ø20
G	G1/4"	G1/4"	G3/8"	G3/8"	G3/8"	G3/8"	G1/2"	G1/2"	G1/2"	G1/2"	G3/4"	G3/4"
H	32	32	35	35	36	36	40	40	37	37	43	43
I	8	8	10	10	10	10	10	10	10	10	12	12
J	62	82	68	92	70	94	77	105	74	102	86	120
K	4	4	4	4	4	4	5	5	6	6	10	10
L	40	50	45	57	46	58	50	64	47	61	55	72
M	M8	M8	M10	M10	M10	M10	M12	M12	M12	M12	M14	M14
N	2x90°M5	2x90°M5	2x90°M6	2x90°M8	2x90°M8							
O	—	20	—	24	—	24	—	28	—	28	—	34

Subject to technical change without notice.



## ► Characteristics

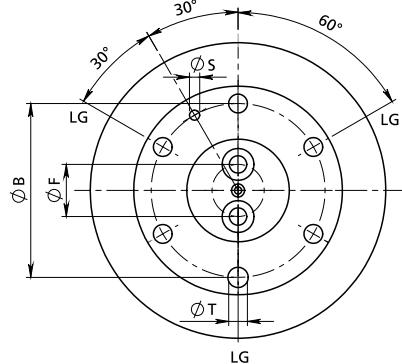
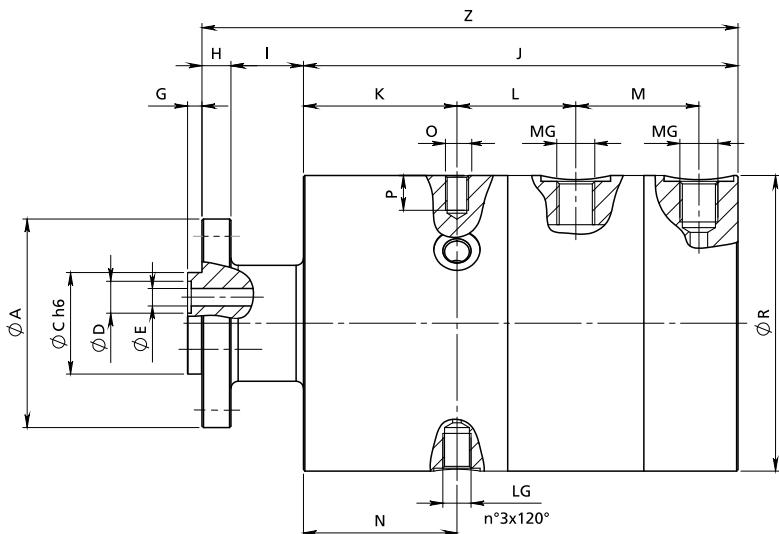
Type MPT is a 2 passages design to transfer water or air or hydraulic oil at low pressure but at higher speed, only 1 medium. Different media could mix up in case of leakage. Seal design with mechanical seals, therefore suitable for higher speed. Material for rotor and housing depending on medium. Housing design with radial connections G/BSP (ISO 228). Axial housing connection on request.

Rotor design with fixed flange or for K-flange and inner rings.

## ► Application data

Pressure max:	10 bar*
Special version:	25 bar
Speed max:	1,000 min <sup>-1</sup> *
Temperature max:	80°C
Filtration ratio:	50 µm

\* Avoid combination of maximum values. For correct selection get in contact with the factory.

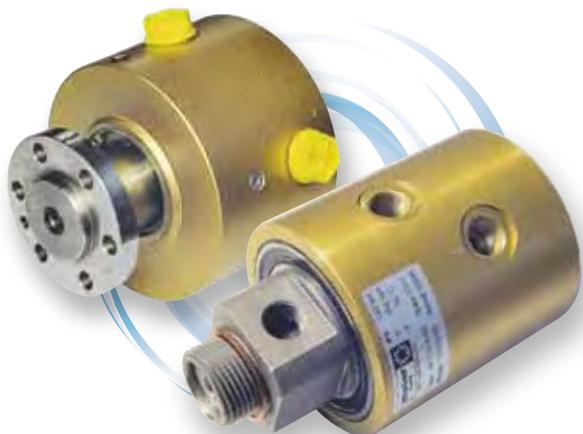


## ► Dimensions

Type	MPT0206	MPT0210	MPT0215	MPT0220	MPT0225
Cod. Art. A	1119T111	1119T121	1119T131	1119T141	1119T151
Cod. Art. C	1119T113	1119T123	1119T133	1119T143	1119T153
Cod. Art. D	1119T1114	1119T124	1119T134	1119T144	1119T154
Cod. Art. G	1119T116	1119T126	1119T136	1119T146	1119T156
A	72	78	98	124	134
B	60	65	80	100	110
C	35	45	55	65	75
D	11	16	19	24	29
E	6	9	12	18	22
F	18	24	28	34	38
G	5	5	5	5	5
H	10	10	12	14	14
I	25	25	35	45	45
J	150	155	178	196	221
K	53	53	60	69	78
L	41	41	48	48	52.5
M	42.5	45.5	53.5	58.5	61
LG	G1/8"	G1/8"	G1/8"	G1/8"	G1/8"
MG	G1/4"	G3/8"	G1/2"	G3/4"	G1"
N	53	53	60	69	78
O	M8	M8	M10	M10	M12
P	12	12	15	15	18
R	102	108	128	148	168
S	3.5	3.5	3.5	4.5	4.5
T	8.5	8.5	8.5	13	13
Z	185	190	225	255	280



Subject to technical change without notice.



## Characteristics

Type MPV is a 1 to 4 passages (or more) design to transfer hydraulic oil at high speed and high pressure simultaneously. Design is made with gap seal bushes – "hydrostatic relief". Gap seals create controlled leakage, predictable and remaining within acceptable limits recirculated without pressure to the hydraulic oil power unit tank.

Housing in carbon steel or aluminium, rotor in carbon steel. Stainless steel upon request. Rotor design with fixed flange or male thread right-hand or left-hand in G/BSP (ISO 228). Housing design with radial connections G/BSP (ISO 228).

## Application Data

Pressure PN max: → 250 bar

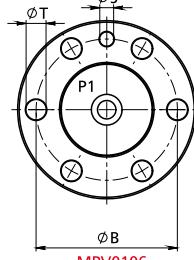
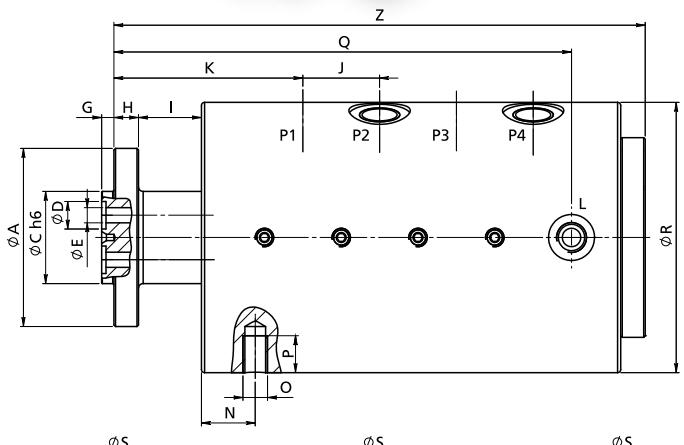
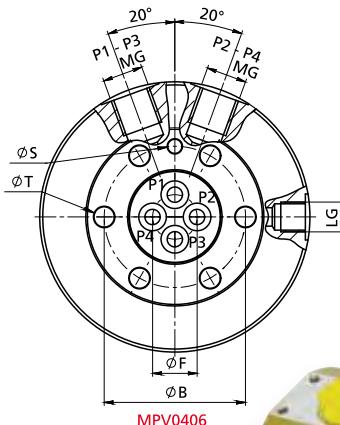
Pressure PN min: → 3 bar

Speed max: → 10,000 min<sup>-1</sup>

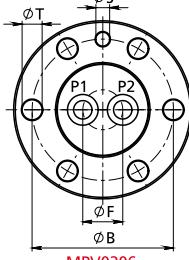
Temperature max: → 80 °C

Filtration ratio: → 15 µm

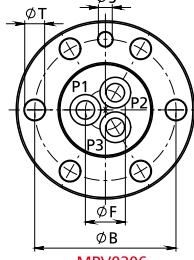
*For correct selection get in contact with the factory.*



MPV106



MPV206



MPV306



MPV406

## Dimensions

Type	MPV106	MPV206	MPV2T06	MPV306	MPV406
Art. C	1119V013	1119V113	1119V113T	1119V213	1119V313
Art. D	1119V014	1119V114	1119V114T	1119V214	1119V314
Art. E	1119V015	1119V115	1119V115T	1119V215	1119V315
A	58	58	46	58	58
B	46	46	46	46	46
C	30	30	G 3/4	30	30
D	10	10	/	10	9
E	6	6	6.5	6	5
F	/	13	/	13	14.5
G	5	5	17	5	5
H	8	8	1.5	8	8
I	22	22	27	22	22
J	25	25	25	25	25
K	64	64	64	64	64
LG	G1/8"	G1/8"	G1/8"	G1/8"	G1/8"
MG	G1/4"	G1/4"	G1/4"	G1/4"	G1/4"
N	34	34	34	34	34
O	M8	M8	M8	M8	M8
P	12	12	12	12	12
Q	76.5	101.5	101.5	126.5	151.5
R	84	84	84	84	84
S	4.5	4.5	/	4.5	4.5
T	6.5	6.5	/	6.5	6.5
Z	100	125	142	150	175

Subject to technical change without notice.



## ► Characteristics

Type **MPA** with 1, 2 passages (or more) is suitable to transfer compressed air at high speed and moderate pressure simultaneously.

Design is made with gap seal bushes—"hydrostatic relief". Gap seals create controlled leakage. Rotor design with flange or male thread right or left hand in G/BSP (ISO 228). Housing design with radial connections G/BSP (ISO 228).

## ► Application data

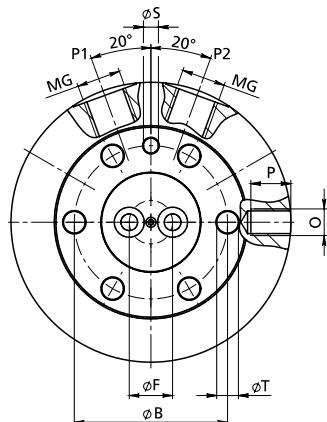
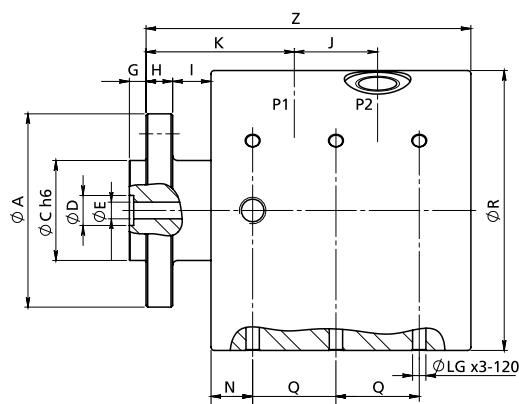
Pressure PN max: → 10 bar

Speed max: → 5,000 min<sup>-1</sup>

Temperature max: → 80°C

Filtration ratio: → 10 µm

*For correct selection get in contact with the factory.*



## ► Dimensions

Type	MPA0106	MPA0206
Cod. Art. B	1119A012	1119A112
A	58	58
B	46	46
C	30	30
D	10	10
E	6	6
F	—	13
G	5	5
H	8	8
I	22	22
J	25	25
K	55	55
LG	Ø4	Ø4
MG	G1/4"	G1/4"
N	12,5	12,5
O	M8	M8
P	12	12
Q	25	25
R	84	84
S	4,5	4,5
T	6,5	6,5
Z	83	108



Subject to technical change without notice.



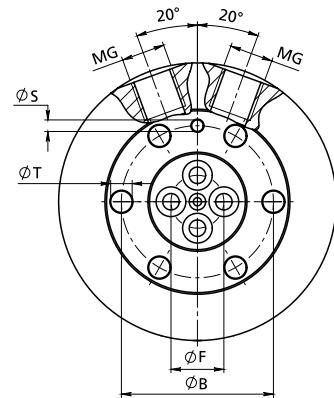
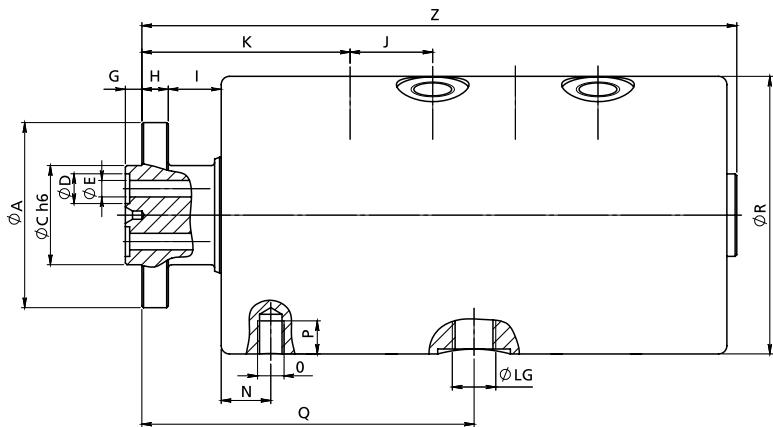
## Characteristics

Type **MPW** with 1 or 4 passages or more is suitable to transfer water at high speed and moderate pressure simultaneously. Design is made with gap seal bushes—"hydrostatic relief". Gap seals create controlled leakage. Rotor design with flange or male thread right or left hand in G/BSP (ISO 228). Housing design with radial connections G/BSP (ISO 228).

## Application data

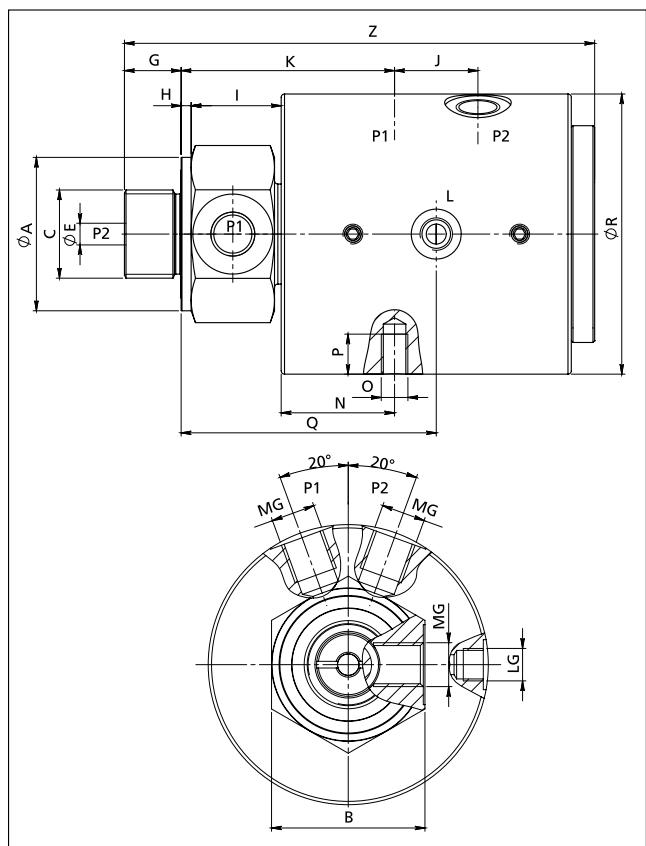
- Pressure PN max: → 15 bar
- Pressure PN min: → 3 bar
- Speed max: → 5,000 min<sup>-1</sup>
- Temperature max: → 80°C
- Filtration ratio: → 20 µm

*For correct selection get in contact with the factory.*



## Dimensions

Type	MPW0106	MPW0206	MPW02T06	MPW0306	MPW0406
Cod. Art. C	1119W013	1119W113	1119W113T	1119W213	1119W313
A	58	58	46	58	58
B	46	46	46	46	46
C	30	30	G3/4	30	30
D	10	10	—	10	9
E	6	6	6,5	6	5
F	—	16	—	16	16
G	5	5	17	5	5
H	8	8	1,5	8	8
I	22	22	27	22	22
J	25	25	25	25	25
K	69	69	69	69	69
LG	G1/4"	G1/4"	G1/4"	G1/4"	G1/4"
MG	G1/4"	G1/4"	G1/4"	G1/4"	G1/4"
N	15	15	15	15	15
O	M8	M8	M8	M8	M8
P	12	12	12	12	12
Q	81,5	81,5	86,5	106,5	106,5
R	84	84	84	84	84
S	4,5	4,5	—	4,5	4,5
T	6,5	6,5	—	6,5	6,5
Z	111	136	141	161	186



Subject to technical change without notice.

## MACHINE TOOLS



### Characteristics

**Multipassage joint** with 5 passages type **Combijoint** consisting of:

- Rotary joint type **MPV** with 4 passages for Oil
- Rotary joint type **KLT** with 1 passage for coolant

### Application data

Media: **Hydraulic oil, coolant**

Pressure: → 200 bar (hydraulic oil)  
70 bar (coolant)

Speed: → 2500 min<sup>-1</sup>

Temperature: → 40° C

Filtration ratio: → 20 µm

## METAL WORKING MACHINES



### Characteristics

Application on a laser machine for tubes cutting

**Multipassage joint** with 5 passages type **Combijoint** consisting of:

- Rotary joint type **MPH** with 5 passages
- Slip ring type **SRK 150/22** poles with gold/gold contacts

### Application data

Media: **Water; air; nitrogen and inert gas**

Pressure: → 5 bar (water)  
2 bar (air)  
12 bar (nitrogen)  
25 bar (inert gas)

Speed': → 120 min<sup>-1</sup>

Temperature: → 40° C

Filtration ratio: → 50 µm

Slip ring: → 22 poles for power, signals, probes, encoder

## AUTOMATION



### Characteristics

Application on a rotating table

**Multipassage joint type MP** with 12 passages

- Housing in brass
- Rotor in stainless steel
- Outlet rotor for encoder

### Application data

Medium: **Compressed air**

Pressure: → 7 bar

Speed: → 7,5 min<sup>-1</sup> max

Temperature: → 20° C

Filtration ratio: → 50 µm

## DRILLING



### Characteristics

Application on a drilling machine for clamping/unclamping pipes

**Multipassage joint type Combijoint** consisting of:

- Rotary joint type **MP** with 5 passages
- Slip ring type **SRK 80/10** poles with gold/gold contacts

### Application data

Medium: **Hydraulic oil**

Pressure: → 250 bar

Speed: → 6 min<sup>-1</sup> max

Temperature: → - 20° ... 40° C

Filtration ratio: → 50 µm

## CONVERTING MACHINE



### Characteristics

Application on a tissue machine  
**Multipassage joint type Combijoint** consisting of:

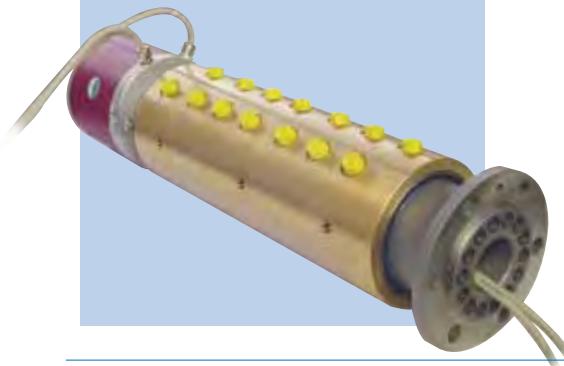
- Rotary joint type **MP** with 5 passages
- Slip ring type **SRK 40/6** poles with gold/gold contacts

### Application data

Medium: **Compressed air**

- Pressure: → 7 bar  
Speed: → 270 min<sup>-1</sup> max  
Temperature: → 20° C  
Filtration ratio: → 50 µm  
Slip ring: → 6 poles for signals

## INJECTION MOULDING MACHINES



### Characteristics

Application on a rotating table  
**Multipassage joint type Combijoint** consisting of:

- Rotary joint type **MP** with 14 passages
- Slip ring type **SRK 150/18** poles gold/gold contacts

### Application data

Media: **Water, hydraulic oil, air**

- Pressure: → 5 bar (air)  
140 bar (hydraulic oil)  
12 bar (water)  
Speed: → 10 min<sup>-1</sup>  
Temperature: → 40° C  
Filtration ratio: → 50 µm  
Slip ring: → 18 poles for power, signals, encoder

## WIND AND HYDRAULIC TURBINES



### Characteristics

- Application on a 15 MW wind turbine for the blades pitch control
- **Multipassage joint type MPV** with 3 passages for hydraulic oil
- Arrangement for slip ring assembly and electrical cables passage

### Application data

Medium: **Hydraulic oil**

- Pressure: → 350 / 10 bar  
Speed: → 50 min<sup>-1</sup>  
Temperature: → -10° ... 70° C  
Filtration ratio: → 15 µm

## METAL WORKING MACHINES



### Characteristics

Application on mandrels for metal coiling

- **Rotary joint type MPV** with 2 passages for hydraulic oil. Possibility to combine it with a rotary joint for grease

### Application data

Medium: **Hydraulic oil**

- Pressure: → 270 bar  
Speed: → 570 min<sup>-1</sup>  
Temperature: → 40° C  
Filtration ratio: → 15 µm

**Special versions and Combijoint**

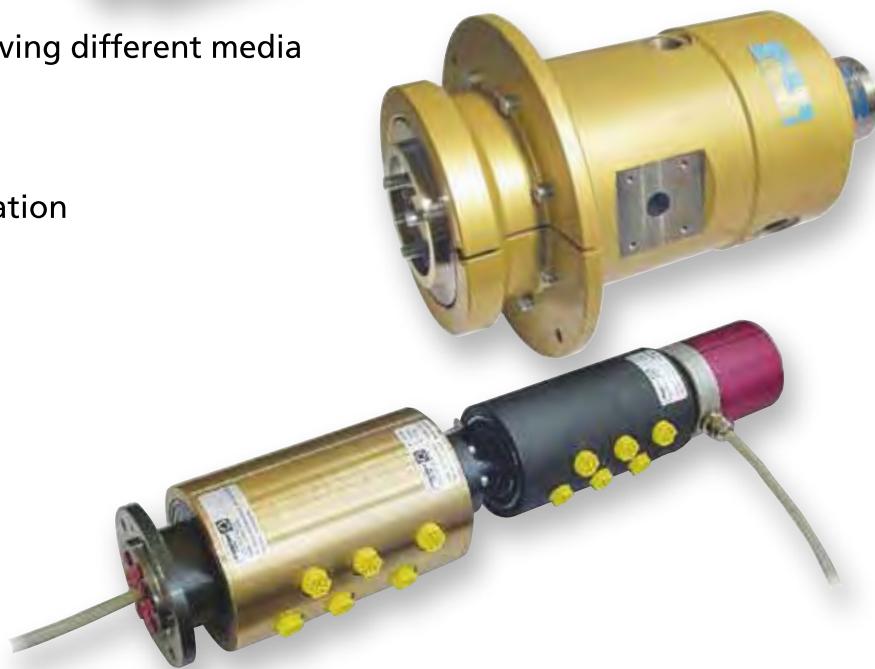
The Combijoint version is the ultimative answer for the designer. With our experience we use the suitable seal and material for your application, we add to this innovative idea, slip rings to transfer electric power, signals and data. Each Combijoint is made according your request.

**Fields of applications for the MP and its variants:**

- Rotating tables
- Injection moulding machines for plastics with rotating table
- Automation
- Machine tools
- Tanning machines
- Glass machines
- Steel plants
- Machines for food industry
- Filling and labelling machines
- Mixers
- Coiling systems
- Robotics
- Centrifuges separators solid / liquid
- Rotating filters
- Off-shore
- Cryogenic applications
- Radar
- Tunnel machines

**Advantages using Combijoint:**

- Complete separation of the circuits having different media
- Customized design
- Easy access for service on the joint
- Different materials according specification
- Extended lifetime
- Simplified maintenance



## Inquiry form

Company \_\_\_\_\_ Name \_\_\_\_\_

Street \_\_\_\_\_

Postal Code \_\_\_\_\_ City \_\_\_\_\_ Country \_\_\_\_\_

Phone \_\_\_\_\_ Fax \_\_\_\_\_ E-mail \_\_\_\_\_

### Technical data

Application\* \_\_\_\_\_

Number of passages\*\* \_\_\_\_\_ Nominal Diameter\*\* \_\_\_\_\_

Medium / Media \_\_\_\_\_

Pressure / s \_\_\_\_\_ Flow rate / s \_\_\_\_\_

Temperature / s \_\_\_\_\_ Speed \_\_\_\_\_

In case of angular movements, please specify:

Rotating angle \_\_\_\_\_

Accomplished which speed \_\_\_\_\_

Is the rotation in the same direction Yes  or returns back - Yes

Axial bore request? Yes  Bore diameter \_\_\_\_\_ No

Mounting: Horizontal  Vertical (Flange facing down)  Vertical (Flange facing up)

\* If possible, please enclose drawing of the application. \*\* Specify if different sizes.

### Technical Data for slip ring selection

Total No. of poles: \_\_\_\_\_ Voltage max (V) \_\_\_\_\_ Current max (A) \_\_\_\_\_

Type of transmission: Power  No. of poles: \_\_\_\_\_ Voltage max (V) \_\_\_\_\_ Current max (A) \_\_\_\_\_

Signals  No. of poles: \_\_\_\_\_ Voltage max (V) \_\_\_\_\_ Current max (A) \_\_\_\_\_

Control  No. of poles: \_\_\_\_\_ Type \_\_\_\_\_

Digital Data  No. of poles: \_\_\_\_\_ Type \_\_\_\_\_

Speed: \_\_\_\_\_

Mounting: Flange

Shaft plug-in  Notes: \_\_\_\_\_

Special connectors required: Yes  No

(If yes, please specify) \_\_\_\_\_

Protection: IP \_\_\_\_\_

Quantity: \_\_\_\_\_

Date: \_\_\_\_\_



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