

**Selection and Ordering data**

Order No.

Order code

**Rotary piston meter DN 50 (2")**

Nom. press.	Materials		Rotary piston					Casing gasket	Weight appr. kg (lb)	
	Housing	Meas. chamber								
PN 6 (87 psi)	Cast iron	Cast iron		•	•	•	•	•	Flat gasket AFM 34	31 (68.3)
PN 16 (232 psi)	CrNiMo steel	CrNiMo steel	•	•	•	•	•			
PN 25 (363 psi)	Spher. cast iron	Cast iron		•	•	•	•			45 (99.2)
PN 40 (580 psi)	Cast steel	Cast iron		•	•	•	•	FKM (O-ring)		60 (132)
PN 63 (914 psi)	Cast steel	Cast iron		•	•	•	•	Flat gasket AFM 34		94 (207)

7MR 1 4 1 0	-	E	-	-	-	-	-	-	-	-
7MR 1 4 1 0	-	S	-	-	-	-	-	-	-	-
7MR 1 4 2 0	-	E	-	-	-	-	-	-	-	-
7MR 1 4 3 0	-	E	-	-	-	-	-	-	-	-
7MR 1 4 4 0	-	E	-	-	-	-	-	-	-	-

**Rotary piston material**

							Max. permissible liquid temperature	Weight appr. kg (lb)
Carbon						•		0.9 (2.0)
Cast iron						•		3.5 (7.7)
Cast iron, grooved						•		3.4 (7.5)
Ni-resist						•		3.5 (7.7)
Ni-resist, grooved						•		3.4 (7.5)
Hard rubber						•	40 °C (104 °F)	0.7 (1.5)
Hard rubber, grooved						•	40 °C (104 °F)	
PTFE with graphite filling						•	40 °C (104 °F)	0.5 (1.1)
PTFE with graphite filling, grooved						•	40 °C (104 °F)	
PTFE with graphite filling						•	90 °C (194 °F)	
PTFE with graphite filling, grooved						•	90 °C (194 °F)	

**Flow direction**

Mechanism shaft vertical	From left to right
	From right to left
	From front to back
	From back to front
Mechanism shaft horizontal	From left to right
	From right to left
	Upwards
	Downwards

K  
 E  
 B  
 N  
 C  
 G  
 D  
 F  
 L  
 R  
 M  
 1  
 2  
 3  
 4  
 5  
 6  
 7  
 0

**Mechanical registers/quantity preset registers<sup>1)</sup>**

Single- pointer dial	Weight appr. kg (lb)
• Type 01	0.8 (1.76)
Double-pointer dial (note mounting position! see description on page 4/459)	1.5 (3.3)
• Type 11, vertical mounting	
• Type 12, horizontal mounting	2.5 (5.5)
Quantity preset register (only for vertical mechanism shaft, flow direction according to codes 1 ... 4)	
• Type 30	11 (24.3)
• Type 30, ex-protected switch	13.2 (29.1)

0 1  
 1 1  
 1 2  
 3 0  
 5 4

**Value per revolution**

- 10 l (2.65 USg)
- 100 l (26.5 USg)

2  
3

**Accessories (pulsers, cooling attachments)<sup>1)</sup>**

- None
- Mounted
- Pulsar already mounted above the intermediate gear:
  - 10 pulses/value per revolution
  - 100 pulses/value per revolution
- Pulsar already mounted below the intermediate gear:
  - 10 pulses/measuring chamber volume
  - 100 pulses/measuring chamber volume

A  
 B  
 C  
 D  
 G  
 H

<sup>1)</sup> For measuring temperatures over 80 °C, it is always necessary to order one cooling attachment (7MV3001-1XX00).  
For measuring temperatures over 180 °C, it is always necessary to order two cooling attachments (7MV3001-2XX00) as separate items.

**Rotary piston meter DN 50 (2“)**

7MR 1 4 0 - - - - -

**Digital register with current/pulse output**

**As separate model:** Pulsar mounted on the rotary-piston meter and locked with protective cover; SITRANS F RA110 (order separately, for product description, see page 4/461)

10 pulses/revolution

- max. material temperature 80 °C (176 °F), without cooling attachment
- max. material temperature 180 °C (356 °F), one cooling attachment
- max. material temperature 260 °C (500 °F), two cooling attachments

4 1 0 B  
4 3 0 B  
4 5 0 B

100 pulses/revolution

- max. material temperature 80 °C (176 °F), without cooling attachment
- max. material temperature 180 °C (356 °F), one cooling attachment
- max. material temperature 260 °C (500 °F), two cooling attachments

4 6 0 B  
4 7 0 B  
4 8 0 B

**Compact version:** Pulsar (page 4/464) mounted on the rotary-piston meter and locked with mounting bracket; SITRANS F RA110 (order separately, see product description on page 4/461) mounted on mounting bracket.

10 pulses/revolution

- max. material temperature 80 °C (176 °F), without cooling attachment
- max. material temperature 180 °C (356 °F), one cooling attachment
- max. material temperature 260 °C (500 °F), two cooling attachments

6 1 0 B  
6 3 0 B  
6 5 0 B

100 pulses/revolution

- max. material temperature 80 °C (176 °F), without cooling attachment
- max. material temperature 180 °C (356 °F), one cooling attachment
- max. material temperature 260 °C (500 °F), two cooling attachments

6 6 0 B  
6 7 0 B  
6 8 0 B

**Tests**

Works test

Works test certificate

Preliminary official test (only for vertical mechanism shaft and mech. register and quantity preset register)

Preliminary official test (only for vertical mechanism shaft and mech. register or quantity preset register

and pulsar (double pick-up) for current/pulse output);

(not currently available in connection with SITRANS F RA110)

A  
B  
D<sup>1)</sup>  
E<sup>1)</sup>

**Flanges**

Plane, drilled to EN 1092-1

Plane, drilled to specification

With sealing ridge to specification

0  
9 R 1 Y  
9 R 2 Y

**Heating systems** on request

<sup>1)</sup> Not with PTFE and PCTFE pistons.

**Accessories**

Order No.

**Instruction Manual**

7MR1410...

- German F) **C73000-B5100-C15**
- English F) **C73000-B5176-C15**

7MR1420... and 7MR1440

- German F) **C73000-B5100-C23**
- English F) **C73000-B5176-C23**

7MR1430...

- German F) **C73000-B5100-C30**
- English F) **C73000-B5176-C30**

F) Subject to export regulations AL: 91999, ECCN: N.

**Informations relevant for ordering**

The informations relevant for ordering can be found in section „Introduction“ at the beginning of the chapter:

**Application:** see page 4/422

**Function and design:** see page 4/423

**Configuration:** see page 4/425 ff.

**Operating limits:** Permissible liquid temperatures and further technical specifications see page 4/429 ff.

**Dimensional drawings:** see page 4/444 (dimensions of flanges) and pages 4/445 ff.

**Mounting position:** as desired; note mounting position of register!

**Certificates and approvals**

Classification according to pressure equipment directive (DGRL 97/23/EG):

- 7MR1410 and 7MR1420: for liquids of group 1; complies with requirements of article 3, paragraph 3 (sound engineering practice SEP)
- 7MR1430 and 7MR1440: for liquids of group 2; complies with requirements of article 3, paragraph 3 (sound engineering practice SEP);  
For liquids of fluid group 1 on request.

**Ordering example** see page 4/431