

SmartLine Guided Radar Level Meter

RM71 All but 2mm For 2mm probe style see MSG 36-RM-16-03

Model Selection Guide



Higher signal dynamics and sharper pulses improve accuracy
Displays level and interface
Easy navigation using a touch screen without opening the housing (installation wizard)
PACTware and DTMs included as standard
Optional second current output - used for displaying interface measurements etc.
Display in 9 languages including Chinese, Japanese and Russian.

Instructions

Select the desired key number. The arrow to the right marks the selection available.
Make the desired selections from Tables I through VI using the column below the proper arrow. A dot (•) denotes availability.

Table	I	II	III	IV	V	VI
RM71	- 4	-----	-----	-----	-----	-----

KEY NUMBER

KEY NUMBER	Description
RM71	

Selection	Availability
RM71	↓

TABLE I

Level Meter Code
4

4	•
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TABLE II

Approvals	None ATEX II G/D 1, 1/2, 2 Ex ia IIC T6 ATEX II G/D 1/2, 2 Ex d ia IIC T6 FM IS Cl. I, II, III Div. 1,2 Gr. A-G Dual Seal FM XP Cl. I, II, III Div. 1,2 Gr. A-G Dual Seal ATEX II 3G Ex nA II T3...T6 INMETRO Cepel G/D 1/2, 2 Ex ia IIC T3...T6 INMETRO Cepel G/D 1/2, 2 Ex d[ia] IIC T3...T6 NEPSI Ex ia IIC T3...T6 NEPSI Ex d[ia] IIC T3...T6 CSA IS Cl. I, II, III Div. 1,2 Gr. A-G + Dual seal CSA XP Cl. I, II, III Div. 2 Gr. A-G + Dual seal IECEx Zone 0 Ex ia IIC T3...T6, Ex iaD 20 IECEx Zone 0/1 Exd [ia] IIC T3...T6, Ex tD [iaD] A21/20	
Material Process Connection and Probe	316L / 1.4404 - 40 bar Hastelloy C-22 / 2.4602 - 40 bar 316L / 1.4404 - 100 bar Hastelloy C-22 / 2.4602 - 100 bar	
Probe	Single rod dia. 8 mm(0.31"); length 1 m (3.28') min. to 4 m (13.12') max. Double rod dia. 8 mm (0.31") ; length 1 m (3.28') min. to 4 m (13.12') max. Coax dia. 22 mm (0.87"); length 1 m (3.28') min. to 6 m (19.69') max. Single cable dia. 4 mm (0.16"); length 1m (3.28') min. to 35m(114.83') max. Single cable dia. 8 mm (0.31"); length 1 m (3.28') min. to 35 m (114.83') max. Double cable dia. 4 mm (0.16"); length 1 m (3.28') min. to 8 m (26.25') max. Single cable Ø 4 mm / 0.16 inch FEP coated (1mm) max. 35 m / 114.83 ft Segmented single rod Ø 8mm Segmented coax Ø 22mm	Probe lengths are available in 3.94" (100 mm) increments. Refer to Length table
Probe End Type	None (rod & coax version) Counterweight 12 mm (0.47") x 100 mm (3.94"); Single cable 8 mm(0.31") Counterweight 38 mm (1.5") x 245 mm (9.65"); Single cable 8 mm (0.31") Counterweight 20 mm (0.79") x 100 mm (3.94"); Single cable 4 mm (0.16") Counterweight 38 mm (1.5") x 60 mm (2.36"); Double cable 4 mm (0.16") Turnbuckle Chuck Threaded end Crimped end Open end	
Feedthrough / Temperature / Sealing	Standard: -40°C (-40°F)...+200°C (392°F) / FKM/FPM Standard: -20°C (-4°F)...+200°C (392°F) / Kalrez 6375 Standard: -50°C (-58°F)...+150°C (302°F), / EPDM	

0	a
2	r
3	p
6	q
7	n
A	r
B	
C	
E	r
F	p
H	q
K	n
M	w
N	p
-0	•
-1	b
-2	•
-3	b
-0	c
-1	d
-2	e
-3	f
-4	g
-5	h
-7	z
-M	c
-S	x
-0	•
-1	•
-2	•
-3	•
-4	•
-A	•
-B	•
-C	•
-D	•
-E	•
-0	•
-1	•
-4	•

TABLE III	Description	Selection	Availability
Process Connection EN	G 3/4" A ISO228	100_	•
	G 1" A ISO228	200_	•
	G 1 1/2" A ISO228	300_	•
	DN 25 PN 40 Form B1 EN1092	400_	•
	DN 40 PN 40 Form B1 EN1092	500_	•
	DN 50 PN 40 Form B1 EN1092	600_	•
	DN 80 PN 40 Form B1 EN1092	700_	•
	DN 100 PN 16 Form B1 EN1092	800_	•
	DN 100 PN 40 Form B1 EN1092	A00_	•
	DN 150 PN 16 Form B1 EN1092	B00_	•
	DN 150 PN 40 Form B1 EN1092	C00_	•
	DN50 PN63 Form B1 EN1092	D00_	•
	DN80 PN63 Form B1 EN1092	E00_	•
	DN100 PN63 Form B1 EN1092	F00_	•
	DN25 PN63/PN100 Form B1 EN1092	K00_	•
	DN40 PN63/PN100 Form B1 EN1092	L00_	•
	DN50 PN100 Form B1 EN1092	M00_	•
	DN80 PN100 Form B1 EN1092	N00_	•
	DN100 PN100 Form B1 EN1092	P00_	•
	DN150 PN63 Form B1 EN1092	R00_	•
DN150 PN100 Form B1 EN1092	S00_	•	
Process Connection ASME	3/4" NPT	010_	•
	1" NPT	020_	•
	1 1/2" NPT	030_	•
	1" 150 lb RF ASME B16.5	040_	•
	1 1/2" 150 lb RF ASME B16.5	050_	•
	1 1/2" 300 lb RF ASME B16.5	060_	•
	2" 150 lb RF ASME B16.5	070_	•
	2" 300 lb RF ASME B16.5	080_	•
	3" 150 lb RF ASME B16.5	0A0_	•
	3" 300 lb RF ASME B16.5	0B0_	•
	4" 150 lb RF ASME B16.5	0C0_	•
	4" 300 lb RF ASME B16.5	0D0_	•
	6" 150 lb RF ASME B16.5	0E0_	•
	8" 150 lb RF ASME B16.5	0F0_	•
	6" 300 LBS RF ASME B16.5	0G0_	•
	1" 600LBS RF ASME B16.5	0M0_	•
	1" 1/2 600LBS RF ASME B16.5	0N0_	•
	2" 600LBS RF ASME B16.5	0P0_	•
	3" 600LBS RF ASME B16.5	0R0_	•
	4" 600LBS RF ASME B16.5	0S0_	•
	1" 900LBS/1500LBS RF ASME B16.5	0T0_	•
	1" 1/2 900LBS/1500LBS RF ASME B16.5	0U0_	•
	2" 900LBS/1500LBS RF ASME B16.5	0V0_	•
	3" 900LBS RF ASME B16.5	0W0_	•
4" 900LBS RF ASME B16.5	0X0_	•	
Process Connection Other	10K 40A RF JIS B2220	005_	•
	10K 50A RF JIS B2220	006_	•
	10K 80A RF JIS B2220	007_	•
	10K 100A RF JIS B2220	008_	•
Output	Output: 4...20mA (Hart)	___0	•
	1 Output: 4...20mA (Hart) + Interface	___1	•
	2 Outputs 4...20mA (Hart) + 4...20mA	___2	•
	2 Outputs 4...20mA (Hart) + 4...20mA + Interface	___3	•
	Foundation Fieldbus (4 wire + local Hart)	___A	•
	Foundation Fieldbus (4 wire + local Hart) + Interface	___B	•
Profibus PA (4 wire + local Hart)	___D	•	
Profibus PA (4 wire + local Hart) + Interface	___E	•	

TABLE IV

		Selection	Availability
Housing/Cable Entry/Cable gland	Aluminum / M20 x 1.5 / without	0 _ _ _ _	•
	Aluminum / 1/2" NPT / without	1 _ _ _ _	•
	Aluminum / G1/2" / without	2 _ _ _ _	•
	Aluminum / M20 x 1.5 / Plastic (Non-Ex: black, Ex i: blue)	3 _ _ _ _	•
	Aluminum / M20 x 1.5 / Metal (only for Ex d devices)	4 _ _ _ _	•
	Stainless Steel / M25 x 1.5 / without	A _ _ _ _	•
	Stainless Steel / 1/2" NPT / without	B _ _ _ _	•
	Stainless Steel / M25 x 1.5 / plastic M20 (Non-Ex: Black, Exi blue)	D _ _ _ _	•
Stainless Steel / M25 x 1.5 / metal M20 (only for Ex d devices)	E _ _ _ _	•	
Housing Option	None	_ 0 _ _ _	•
	Weather Protection	_ 2 _ _ _	•
	Remote Version / 2 m (2180mm; 6.56 ft.)	_ 3 _ _ _	s
	Remote Version / 4.5 m (4720 mm; 14.76 ft.)	_ 4 _ _ _	t
	Remote Version / 9.5 m (9800 mm; 31.17 ft.)	_ 5 _ _ _	u
	Remote Version / 14.5 m (14880 mm; 47.57 ft.)	_ 6 _ _ _	v
	Remote Version / 2 m (2180 mm; 6.56 ft.) + Weather Protection	_ A _ _ _	s
	Remote Version / 4.5 m (4720 mm; 14.76 ft.) + Weather Protection	_ B _ _ _	t
	Remote Version / 9.5 m (9800 mm; 31.17 ft.) + Weather Protection	_ C _ _ _	u
Remote Version / 14.5 m (14880 mm; 47.57 ft.) + Weather Protection	_ D _ _ _	v	
HMI (display & keys)	None	_ _ 0 _ _	•
	English	_ _ 1 _ _	•
	German	_ _ 2 _ _	•
	French	_ _ 3 _ _	•
	Italian	_ _ 4 _ _	•
	Spanish	_ _ 5 _ _	•
	Portugese	_ _ 6 _ _	•
	Japanese	_ _ 7 _ _	•
	Chinese (Mandarin)	_ _ 8 _ _	•
	Russian	_ _ A _ _	•
Version	Honeywell	_ _ _ V _	•
Special Option	None	_ _ _ _ 0	•
	ESD Protection 30 KV	_ _ _ _ 1	•
	Metaglas® (dual process sealing system for dangerous products)	_ _ _ _ 2	•

For Available Probe Lengths based on the remote electronics selected, refer to the length table.

TABLE V

Calibration Certificates	None	0 0 0 _ _	•
	Calibration certificate 2 points (Coax min. probe length 410mm / 1.35 ft.)	0 0 1 _ _	•
	Calibration certificate 5 points (Coax min. probe length 1910mm / 6.26 ft.)	0 0 2 _ _	•
Drawing / Tag Number	None	_ _ _ 0 0	•
	Tag No. stainless steel plate (1 line: 12 characters)	_ _ _ 0 2	•

TABLE VI

Probe Length	Ordered in 100mm increments, minimum length 1000mm	_ _ _ 0 0	•
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RESTRICTIONS

Restrictions		Available only with		Not Available with	
Letter	Table	Selection	Table	Selection	
a			IV	4 _____, E _____	
b			II	__3____, __4____, __5____, __7____, __M____, __S____, __1____, __2____, __4____, __A____, __B____,	
c	II	___0_			
d	II	___0_	III	100_, 200_, 400_, 500_, K00_, L00_, 010_, 020_, 040_, 050_, 060_, 0M0_, 0N0_, 0T0_, 0U0_, 005_	
			IV	___1	
e	II	___0_	IV	___1	
f			II	___0_, ___1_, ___2_, ___4_	
g			II	___0_, ___3_, ___4_, ___4	
			III	100_, 200_, 400_, K00_, 010_, 020_, 040_, 0M0_, 0T0_, ___1_, ___3_, ___B, ___E	
			IV	_5____, _6____, _C____, _D____	
h	II	___4_, ___A_, ___C_			
			III	100_, 200_, 400_, 500_, K00_, L00_, 010_, 020_, 040_, 050_, 060_, 0M0_, 0N0_, 0T0_, 0U0_, 005_	
			IV	___1	
n			II	__M____, __S__	
			III	100_, 200_, 300_, 400_, 500_, 600_, 700_, 800_, A00_, B00_, C00_, D00_, E00_, F00_, K00_, L00_, M00_, N00_, P00_, R00_, S00_, ___A_, ___B_, ___D, ___E	
	IV	0____, 1____, 4____	IV	___1	
p			III	___A_, ___B_, ___D_, ___E	
			IV	3____, B____, D____, ___1	
q			II	__M____, __S__	
			III	100_, 200_, 300_, 400_, 500_, 600_, 700_, 800_, A00_, B00_, C00_, D00_, E00_, F00_, K00_, L00_, M00_, N00_, P00_, R00_, S00_, ___A_, ___B_, ___D, ___E	
	IV	0____, 1____, 3____,	IV	___1	
r			IV	4____, B____, E____, ___1	

Additional restrictions can be found on page 4

RESTRICTIONS

Restrictions		Available only with		Not Available with	
Letter	Table	Selection	Table	Selection	
s	II	__ 0 __, __ 1 __, __ M __			
	IV	maximum probe length 4 m			
		or			
	II	__ 2 __, __ S __			
	IV	maximum probe length 6 m			
		or			
	II	__ 5 __			
	IV	maximum probe length 8 m			
		or			
t	II	__ 3 __, __ 4 __, __ 7 __			
	IV	maximum probe length 30 m			
	II	__ 0 __, __ 1 __, __ M __			
	IV	maximum probe length 4 m			
		or			
	II	__ 2 __, __ S __			
	IV	maximum probe length 6 m			
		or			
	II	__ 5 __			
IV	maximum probe length 8 m				
u		or			
	II	__ 3 __, __ 4 __, __ 7 __			
	IV	maximum probe length 25 m			
	II	__ 0 __, __ 1 __, __ M __			
	IV	maximum probe length 4 m			
		or			
	II	__ 2 __, __ S __			
	IV	maximum probe length 6 m			
		or			
II	__ 5 __				
IV	maximum probe length 8 m				
v		or			
	II	__ 3 __, __ 4 __, __ 7 __			
	IV	maximum probe length 15 m			
	II	__ 0 __, __ 1 __, __ M __			
	IV	maximum probe length 4 m			
		or			
	II	__ 2 __, __ S __			
	IV	maximum probe length 5 m			
		or			
II	__ 5 __				
IV	maximum probe length 5 m				
w		or			
	II	__ 3 __, __ 4 __, __ 7 __			
IV	maximum probe length 5 m				
x			III	__ A __, __ B __, __ D __, __ E __	
			IV	4 __ __, B __ __, E __ __, __ 1	
z	II	__ 0 __	III	1 0 0 __, 4 0 0 __, K 0 0 __, 0 1 0 __, 0 4 0 __, 0 M 0 __, 0 T 0 __	
	II	__ 3 __			