# Honeywell

SmartLine®

# VersaFlow Mag 4000

## MM 41 Size 1/2" to 6"

# Model Selection Guide

Easy to configure, easy to use
Chemically resistant to alkaline solutions and acids
Diameter range: 1/10" - 120" / DN 2.5 - 3000
Standard liners: PFTE, PFA, ETFE
Various electrode materials available
Conductivity: non water >1 uS/cm; water >20 uS/cm
Process temperature up to 356$^0$F / 180$^0$ C
Hazardous area versions available

**Instructions**

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

| Table | I | II | III | IV | V | VI | VII | VIII |
|---|---|---|---|---|---|---|---|---|
| MM41 | 4 | _ _ _ _ | _ | _ _ _ _ _ | _ _ | _ _ | _ _ _ _ | _ _ _ _ |

| KEY NUMBER | Description | Selection | Availabi |
|---|---|---|---|
| MM41 | | MM41 | ↓ |

**TABLE I - Code Flow Sensor**

| | | |
|---|---|---|
| Flow Sensor | 4 | • |

**TABLE II**

| | | | | | |
|---|---|---|---|---|---|
| **Nominal Diameter** | DN 10 / 3/8" | PTFE | Flanges 1/2" | 1 _ _ _ | • |
| | DN 15 / 1/2" | PTFE | | 2 _ _ _ | • |
| | DN 20 / 3/4" | PTFE | | 3 _ _ _ | • |
| | DN 25 / 1" | PFA | | 4 _ _ _ | • |
| | DN 32 1 1/4" | PFA | | 5 _ _ _ | • |
| | DN 40 / 1 1/2" | PFA | | 6 _ _ _ | • |
| | DN 50 / 2" | PFA | | 7 _ _ _ | • |
| | DN 65 | PFA | | 8 _ _ _ | • |
| | DN 80 / 3" | PFA | | A _ _ _ | • |
| | DN 100 / 4" | PFA | | B _ _ _ | • |
| | DN 125 5" | PFA | | C _ _ _ | • |
| | DN 150 / 6" | PFA | | D _ _ _ | • |
| **Nominal Pressure** | PN 16 EN 1092-1 | | | _ 3 _ _ | **h** |
| | PN 25 EN 1092-1 | | | _ 4 _ _ | **h** |
| | PN 40 EN 1092-1 | | | _ 5 _ _ | • |
| | ASME B 16.5 150 lb RF | | | _ A _ _ | • |
| | ASME B 16.5 300 lb RF | | | _ B _ _ | **t** |
| | JIS 20 K | | | _ M _ _ | **a** |
| | JIS 10 K | | ( DN 50 / 2" - DN 150 / 6" ) | _ N _ _ | **b** |
| **Approvals** | None | | | _ _ 0 _ | • |
| | EEx zone 1 | | ( Converter TWM 9000 C or F & TWM 1000 C or W ) | _ _ 1 _ | **p** |
| | EEx zone 2 | | ( Converter TWM 9000 C or TWM 9000 F ) | _ _ 3 _ | |
| | FM Class 1 DIV 2 | | ( Converter TWM 9000 C or TWM 9000 F ) | _ _ 5 _ | **q** |
| | CSA GP | | | _ _ A _ | |
| | CSA Class 1 DIV 2 | | ( Converter TWM 9000 C or TWM 9000 F ) | _ _ C _ | **q** |
| | NEPSI zone 1 | | ( Converter TWM 9000 C or TWM 9000 F ) | _ _ D _ | **s** |
| **System design** | Compact with aluminum converter housing | | at converter cable mounting | _ _ _ 1 | • |
| | Compact with stainless steel converter housing | | at converter cable mounting | _ _ _ 2 | • |
| | Separate with aluminum connection box | | 1/2" NPT cable mounting | _ _ _ 4 | • |
| | Separate with aluminum connection box | | PF 1/2 cable mounting | _ _ _ 5 | • |
| | Separate with aluminum connection box | | M20 x 1.5 cable mounting | _ _ _ 6 | • |
| | Separate with stainless steel connection box | | 1/2" NPT cable mounting | _ _ _ A | • |
| | Separate with stainless steel connection box | | PF 1/2 cable mounting | _ _ _ B | • |
| | Separate with stainless steel connection box | | M20 x 1.5 cable mounting | _ _ _ C | • |

**TABLE III - Converter model**

| | | | | | |
|---|---|---|---|---|---|
| **Converter model** | Without Converter (replacement sensor only) | | **Requires a separate MSG # to be entered. Either: MM90 MSG # 36-MM-16-05; MM91 MSG # 36-MM-16-06; MM92 MSG # 36-MM-16-07; or MM95 MSG # 36-MM-16-12** | 0 | **g** |
| | TWM 1000 C | (compact design) | | 3 | **c** |
| | TWM 1000 W | (wall mount version, DS Cable Only) | | 4 | **l** |
| | TWM 9000 C | (compact design) | | C | **d** |
| | TWM 9000 F | (field mount version) | | D | **g** |
| | TWM 9000 W | (wall mount version) | | E | **g** |
| | TWM 9000 R | (rack mount version) | | F | **g** |

**TABLE IV**

| | | | | | |
|---|---|---|---|---|---|
| **Lining** | Standard | | | 0 _ _ _ _ | **f** |
| | PTFE - Provided for protection rings | (DN 15/1/2" - 20/3/4") | | 2 _ _ _ _ | **n** |
| | PFA - provided for protection rings | (DN 25/1" - 150/6") | | S _ _ _ _ | **n** |
| **Electrodes (fixed)** | Stainless steel DIN 1.4571 - 316 Ti | | | _ 1 _ _ _ | • |
| | Stainless steel DIN 1.4401 - 316 | | | _ 2 _ _ _ | • |
| | Hastelloy B2 | | | _ 4 _ _ _ | • |
| | Tantalum | | | _ 5 _ _ _ | • |
| | Titanium | | | _ 6 _ _ _ | • |
| | Platinum | | | _ 7 _ _ _ | • |
| | Hastelloy C22 | (standard) | | _ B _ _ _ | • |
| | Low noise (aluminumoxide) - Base HC22 | | | _ N _ _ _ | • |
| | Low noise (aluminumoxide) - Base DIN 1.4571 - 316 Ti | | | _ U _ _ _ | • |
| **Construction of electrodes** | Fixed | | | _ _ 1 _ _ | • |
| **Flange Material/ Housing Material** | Carbon steel St 37-C22 / A 105 flange material/Steel Housing | | | _ _ _ 1 _ | • |
| | Stainless steel DIN 1.4404 - 316 L flange material/Steel Housing | | | _ _ _ 3 _ | • |
| | Carbon steel St 37-C22 / A 105 flange material / DIN 1.4301 - 304 housing material | | | _ _ _ A _ | **e** |
| **Protection class** | IP 66 / 67 | standard dimension | | _ _ _ _ 0 | • |
| | IP 68 field | standard dimension (only with stainless st. connection box) | | _ _ _ _ 1 | **e** |
| | IP 68 factory | standard dimension (only with stainless st. connection box) | **(Note 1)** | _ _ _ _ 2 | **e** |
| | IP 66 / 67 | ISO 13359 | | _ _ _ _ 3 | • |
| | IP 68 field | ISO 13359 (only with stainless st. connection box) | | _ _ _ _ 4 | **e** |
| | IP 68 factory | ISO 13359 (only with stainless st. connection box) | **(Note 1)** | _ _ _ _ 5 | **e** |

**TABLE V**

| | | | |
|---|---|---|---|
| **Cable** | WithTWM Compact converter, no cable / Other converters receive a separate Double Shielded (DS) Cable | 0 _ | • |
| | Separate BTS | 1 _ | • |
| | Separate LIYCY (only for FM / CSA Class 1 DIV 2) | 2 _ | **j** |
| | Without Cable (replacement sensor only) | Y _ | **y** |
| **Cable length** | Compact - none / separate - 5 m - 15 ft | _ 0 | • |
| | 10 m - 30 ft | _ 1 | • |
| | 15 m - 45 ft | _ 2 | • |
| | 20 m - 60 ft | _ 3 | • |
| | 25 m - 75 ft | _ 4 | • |
| | 30 m - 90 ft | _ 5 | • |
| | 40 m - 120 ft | _ 6 | • |
| | 50 m - 150 ft | _ 7 | • |
| | 100 m - 300 ft | _ 8 | • |
| | Without Cable (replacement sensor only) | _ Y | **y** |

**TABLE VI**

| | | | | |
|---|---|---|---|---|
| **Calibration** | Standard | | 0 _ | • |
| | Standard with 304 / 1.4301 tagplate (67 x 25 mm) 6 lines, 24 characters | | 1 _ | • |
| | Standard with 316 / 1.4401 tagplate (67 x 25 mm) 6 lines, 24 characters | | 3 _ | • |
| | Custody transfer | | A _ | **v** |
| | Custody Transfer with 304 / 1.4301 tagplate (67 x 25 mm) 6 lines, 24 characters | | B _ | **v** |
| | Custody Transfer with 316 / 1.4401 tagplate (67 x 25 mm) 6 lines, 24 characters | | D _ | **v** |
| **Ring** | None | | _ 0 | • |
| | Ring #1 | 1.4571 - 316 Ti material | _ 1 | • |
| | Ring #1 | Hastelloy C4 material | _ 2 | **m** |
| | Ring #1 | Tantalum material | _ 4 | **m** |
| | Ring #1 | Titanium material | _ 5 | **m** |
| | Ring #3 | 1.4571 - 316 Ti material | _ A | • |
| | Protection ring #2 | 1.4571 - 316 Ti material | _ H | • |
| | Protection ring #2 | Hastelloy C22 material | _ R | **m** |
| | Protection ring #2 | Titanium material | _ N | **m** |

**TABLE VII**

| | | | |
|---|---|---|---|
| **No Selection** | None | 0 V _ _ | • |
| **Construction requirements** | Standard | _ _ 0 _ | • |
| **QA / QC** | Standard | _ _ _ 0 | • |

**TABLE VIII**

| | | | |
|---|---|---|---|
| No Selection | None | 0000 | • |

**Note 1: IP 68 factory comes with DS/LIYCY or BTS/LIYCY cables.**

**RESTRICTIONS**

| Restriction Letter | Table | Available only with Selection | Not available with Table | Not available with Selection |
|---|---|---|---|---|
| **a** | | | II | **1 _ _ _, 2 _ _ _** |
| | IV | _ _ _ 1 _ | | |
| **b** | II | 7 _ _ _, 8 _ _ _, A _ _ _, B _ _ _, C _ _ _, D _ _ _ | | |
| | IV | _ _ _ 1 _ | | |
| **c** | II | _ _ 0 1, _ _ 0 2, _ _ 1 1, _ _ 1 2 | | |
| | V | 0 0 | | |
| **d** | II | _ _ _ 1, _ _ _ 2 | | |
| | V | 0 0 | | |
| **e** | II | _ _ _ A, _ _ _ B, _ _ _ C | | |
| **f** | | | VI | _ H, _ R, _ N |
| **g** | II | _ _ _ 4, _ _ _ 5, _ _ _ 6, _ _ _ A, _ _ _ B, _ _ _ C | | |
| **h** | II | 8 _ _ _, B _ _ _, C _ _ _, D _ _ _ | | |
| **j** | II | _ _ 5 _, _ _ C _ | | |
| | IV | _ _ _ _ 2, _ _ _ _ 5 | | |
| **l** | II | _ _ 0 4, _ _ 0 5, _ _ 0 6, _ _ 0 A, _ _ 0 B, _ _ 0 C, _ _ 1 4, _ _ 1 5, _ _ 1 6, _ _ 1 A, _ _ 1 B, _ _ 1 C | | |
| | V | 0 _ | | |
| **m** | II | 4 _ _ _, 5 _ _ _, 6 _ _ _ | | |
| | II | _ 5 _ _, _ A _ _, _ M _ _ | | |
| | **OR** | **OR** | | |
| | II | 7 _ _ _, A _ _ _ | | |
| | II | _ 5 _ _, _ A _ _, _ N _ _ | | |
| | **OR** | **OR** | | |
| | II | 8 _ _ _, B _ _ _, C _ _ _, D _ _ _ | | |
| | II | _ 3 _ _, _ A _ _, _ N _ _ | | |
| **n** | VI | _ H, _ R, _ N | | |
| **p** | II | _ _ _ 1, _ _ _ 2 | | |
| | III | 3, C | | |
| | **OR** | **OR** | | |
| | II | _ _ _ 4, _ _ _ 5, _ _ _ 6, _ _ _ A, _ _ _ B, _ _ _ C | | |
| | III | 0, 4, D | | |
| **q** | II | _ _ _4, _ _ _ 6, _ _ _ A, _ _C | | |
| | III | 0, D | | |
| | IV | _ _ _ _ 0, _ _ _ _ 2 | | |
| | **OR** | **OR** | | |
| | II | _ _ _1, _ _ _ 2 | | |
| | III | C | | |
| | IV | _ _ _ _ 0, _ _ _ _ 2 | | |
| | V | 0 0 | | |
| **s** | II | _ _ _ 1, _ _ _ 2 | | |
| | III | C | | |
| | **OR** | **OR** | | |
| | II | _ _ _ 4, _ _ _ 5, _ _ _ 6, _ _ _ A, _ _ _ B, _ _ _ C | | |
| | III | 0, D | | |
| **t** | | | II | 8 _ _ _, C _ _ _ |
| **v** | III | C, D, E | II | 1 _ _ _ , 2 _ _ _ , 3 _ _ _ |
| **y** | III | 0 | II | _ _ _ 1, _ _ _ 2 |