

# デジタルメータオプション Digital meter option

- ..... 標準仕様にて対応いたします。 It shows that it is covered by standard specifications.
- ▲ ..... 表示計センサ電源使用不可。 Unusable to use the sensor power source of the indicator system.
- ..... 対応不可 No correspondence

|                         |                | 型式 Model number selection<br>オプション記号 Optional symbols<br>アナログ出力 Analog output | 表示計 Indicator |           |     |        |      |         |      |         | 変換器 Converter |         |       |          |       |          |     |          |        |        |        |       |            |      |        |             |       |        |              |   |   |   |   |
|-------------------------|----------------|---|---------------|-----------|-----|--------|------|---------|------|---------|---------------|---------|-------|----------|-------|----------|-----|----------|--------|--------|--------|-------|------------|------|--------|-------------|-------|--------|--------------|---|---|---|---|
|                         |                |   | 3DT[P]        | EM30DT[P] | 4ET | EM40ET | 4ETN | EM40ETN | 4ETV | EM40ETV | 4RRT          | EM45RTN | 100DT | EM0100DT | 100DR | EM0100DR | 9ET | EM0900ET | 4-20mA | EM0900 | 4-20mA | AR[P] | EX30AR-[P] | 0-5V | ARV[P] | EX30AR-V[P] | 1-10V | ART[P] | EX30AR-VT[P] |   |   |   |   |
| 気体用 For Gas             | DUO-PX         | 4-20mA  | —             | —         | —   | —      | —    | —       | —    | —       | —             | —       | —     | —        | —     | —        | —   | ●        | —      | —      | —      | —     | —          | —    | —      | —           | —     | —      |              |   |   |   |   |
| 液体用<br>For Water        | TPS25/32-HA    | パルス Pulse   | ●             | ●         | ●   | ●      | ●    | ●       | ●    | ●       | ●             | ●       | ●     | ●        | ●     | ●        | ●   | ●        | ●      | ●      | ●      | ●     | ●          | ●    | ●      | ●           | ●     | ●      | ●            |   |   |   |   |
|                         | TPS25/32-R(HA) | パルス Pulse   | ●             | ●         | ●   | ●      | ●    | ●       | ●    | ●       | ●             | ●       | ●     | ●        | ●     | ●        | ●   | ●        | ●      | ●      | ●      | ●     | ●          | ●    | ●      | ●           | ●     | ●      | ●            | ● |   |   |   |
|                         | TPS25/32-KA    | パルス Pulse   | ●             | ●         | ●   | ●      | ●    | ●       | ●    | ●       | ●             | ●       | ●     | ●        | ●     | —        | —   | —        | —      | ●      | ●      | ●     | ●          | ●    | ●      | ●           | ●     | ●      | ●            | ● |   |   |   |
|                         | TPR25-R(A)     | パルス Pulse   | ●             | ●         | ●   | ●      | ●    | ●       | ●    | ●       | ●             | ●       | ●     | ●        | ●     | ●        | ●   | ●        | ●      | ●      | ●      | ●     | ●          | ●    | ●      | ●           | ●     | ●      | ●            | ● |   |   |   |
|                         | TPR30-HA       | パルス Pulse   | ●             | ●         | ●   | ●      | ●    | ●       | ●    | ●       | ●             | ●       | ●     | ●        | ●     | ●        | ●   | ●        | ●      | ●      | ●      | ●     | ●          | ●    | ●      | ●           | ●     | ●      | ●            | ● |   |   |   |
|                         | TPR30-KA       | パルス Pulse   | ●             | ●         | ●   | ●      | ●    | ●       | ●    | ●       | ●             | ●       | ●     | ●        | ●     | ●        | ●   | ●        | ●      | ●      | ●      | ●     | ●          | ●    | ●      | ●           | ●     | ●      | ●            | ● |   |   |   |
|                         | VSP(A)         | 4-20mA  | —             | —         | —   | —      | —    | —       | —    | —       | —             | —       | —     | —        | —     | —        | —   | —        | ▲      | —      | —      | —     | —          | —    | —      | —           | —     | —      | —            | — |   |   |   |
|                         | VSP(DA)        | 4-20mA  | —             | —         | —   | —      | —    | —       | —    | —       | —             | —       | —     | —        | —     | —        | —   | —        | ▲      | —      | —      | —     | —          | —    | —      | —           | —     | —      | —            | — |   |   |   |
|                         | VK-HP(A)       | パルス Pulse   | ●             | ●         | ●   | ●      | ●    | ●       | ●    | ●       | ●             | ●       | ●     | ●        | ●     | —        | —   | —        | —      | ●      | ●      | ●     | ●          | ●    | ●      | ●           | ●     | ●      | ●            | ● |   |   |   |
|                         | VK-HP(C)       | 4-20mA  | —             | —         | —   | —      | —    | —       | —    | —       | —             | —       | —     | —        | —     | —        | —   | —        | ●      | —      | —      | —     | —          | —    | —      | —           | —     | —      | —            | — |   |   |   |
|                         | VK-HR(A)       | パルス Pulse   | ●             | ●         | ●   | ●      | ●    | ●       | ●    | ●       | ●             | ●       | ●     | ●        | ●     | ●        | —   | —        | —      | ●      | ●      | ●     | ●          | ●    | ●      | ●           | ●     | ●      | ●            | ● |   |   |   |
|                         | VK-HM(A)       | パルス Pulse   | ●             | ●         | ●   | ●      | ●    | ●       | ●    | ●       | ●             | ●       | ●     | ●        | ●     | ●        | ●   | ●        | ●      | ●      | ●      | ●     | ●          | ●    | ●      | ●           | ●     | ●      | ●            | ● | ● |   |   |
|                         | TP-H(A)        | パルス Pulse   | ●             | ●         | ●   | ●      | ●    | ●       | ●    | ●       | ●             | ●       | ●     | ●        | ●     | ●        | ●   | ●        | ●      | ●      | ●      | ●     | ●          | ●    | ●      | ●           | ●     | ●      | ●            | ● | ● |   |   |
|                         | HF-PK60A       | パルス Pulse   | ●             | ●         | ●   | ●      | ●    | ●       | ●    | ●       | ●             | ●       | ●     | ●        | ●     | ●        | ●   | ●        | ●      | ●      | ●      | ●     | ●          | ●    | ●      | ●           | ●     | ●      | ●            | ● | ● |   |   |
|                         | HF-PEA         | パルス Pulse   | ●             | ●         | ●   | ●      | ●    | ●       | ●    | ●       | ●             | ●       | ●     | ●        | ●     | ●        | ●   | ●        | ●      | ●      | ●      | ●     | ●          | ●    | ●      | ●           | ●     | ●      | ●            | ● | ● |   |   |
|                         | HF-MPA         | パルス Pulse   | ●             | ●         | ●   | ●      | ●    | ●       | ●    | ●       | ●             | ●       | ●     | ●        | ●     | ●        | ●   | ●        | ●      | ●      | ●      | ●     | ●          | ●    | ●      | ●           | ●     | ●      | ●            | ● | ● |   |   |
|                         | HF-GCA         | パルス Pulse   | ●             | ●         | ●   | ●      | ●    | ●       | ●    | ●       | ●             | ●       | ●     | ●        | ●     | ●        | ●   | ●        | ●      | ●      | ●      | ●     | ●          | ●    | ●      | ●           | ●     | ●      | ●            | ● | ● |   |   |
|                         | HF-GCC/T       | パルス Pulse   | ▲             | ▲         | ▲   | ▲      | ▲    | ▲       | ▲    | ▲       | ▲             | ▲       | ▲     | ▲        | ▲     | ▲        | ▲   | ▲        | ▲      | ▲      | ▲      | ▲     | ▲          | ▲    | ▲      | ▲           | ▲     | ▲      | ▲            | ▲ | ▲ |   |   |
|                         | HF-SCA         | パルス Pulse   | ●             | ●         | ●   | ●      | ●    | ●       | ●    | ●       | ●             | ●       | ●     | ●        | ●     | ●        | ●   | ●        | ●      | ●      | ●      | ●     | ●          | ●    | ●      | ●           | ●     | ●      | ●            | ● | ● |   |   |
|                         | UTF-P          | パルス Pulse   | ▲             | ▲         | ▲   | ▲      | ▲    | ▲       | ▲    | ▲       | ▲             | ▲       | ▲     | ▲        | ▲     | ▲        | —   | —        | ●      | ●      | ●      | ●     | ●          | ●    | ●      | ●           | ●     | ●      | ●            | ● | ● |   |   |
|                         | FF-S(P)        | パルス Pulse   | ●             | ●         | ●   | ●      | ●    | ●       | ●    | ●       | ●             | ●       | ●     | ●        | ●     | ●        | ●   | ●        | ●      | ●      | ●      | ●     | ●          | ●    | ●      | ●           | ●     | ●      | ●            | ● | ● |   |   |
|                         | RF-XP          | パルス Pulse   | ●             | ●         | ●   | ●      | ●    | ●       | ●    | ●       | ●             | ●       | ●     | ●        | ●     | ●        | ●   | ●        | ●      | ●      | ●      | ●     | ●          | ●    | ●      | ●           | ●     | ●      | ●            | ● | ● |   |   |
|                         | RF-UP          | パルス Pulse   | ●             | ●         | ●   | ●      | ●    | ●       | ●    | ●       | ●             | ●       | ●     | ●        | ●     | ●        | ●   | ●        | ●      | ●      | ●      | ●     | ●          | ●    | ●      | ●           | ●     | ●      | ●            | ● | ● |   |   |
|                         | DUO-PX         | 4-20mA  | —             | —         | —   | —      | —    | —       | —    | —       | —             | —       | —     | —        | —     | —        | —   | ●        | —      | —      | —      | —     | —          | —    | —      | —           | —     | —      | —            | — | — |   |   |
| 薬液・純水用<br>For Chemicals | USF500S        | パルス Pulse   | ▲             | ▲         | ▲   | ▲      | ▲    | ▲       | ▲    | ▲       | ▲             | ▲       | ▲     | ▲        | ▲     | ▲        | ▲   | ▲        | ▲      | ▲      | ▲      | ▲     | ▲          | ▲    | ▲      | ▲           | ▲     | ▲      | ▲            | ▲ | ▲ | ▲ |   |
|                         | USF500N        | パルス Pulse   | ▲             | ▲         | ▲   | ▲      | ▲    | ▲       | ▲    | ▲       | ▲             | ▲       | ▲     | ▲        | ▲     | ▲        | ▲   | ▲        | ▲      | ▲      | ▲      | ▲     | ▲          | ▲    | ▲      | ▲           | ▲     | ▲      | ▲            | ▲ | ▲ | ▲ |   |
|                         | SSF            | 4-20mA  | ※             | —         | —   | —      | —    | —       | —    | —       | —             | —       | —     | —        | —     | —        | —   | —        | ●      | —      | —      | —     | —          | —    | —      | —           | —     | —      | —            | — | — |   |   |
|                         | FF-P           | パルス Pulse   | ▲             | ▲         | ▲   | ▲      | ▲    | ▲       | ▲    | ▲       | ▲             | ▲       | ▲     | ▲        | ▲     | ▲        | ●   | ●        | ●      | ●      | ●      | ●     | ●          | ●    | ●      | ●           | ●     | ●      | ●            | ● | ● | ● | ● |
|                         | DUO-PF         | 4-20mA  | —             | —         | —   | —      | —    | —       | —    | —       | —             | —       | —     | —        | —     | —        | —   | ●        | —      | —      | —      | —     | —          | —    | —      | —           | —     | —      | —            | — | — | — | — |

※ SSFシリーズのパルス信号は表示計に使用できません。

※ SSF series pulse signals cannot be used for indicators.

# 表示計・変換器 概要説明

General description of the indicator • converter

## 表示計 Digital meter

| 品名<br>Product name                                       | 型式<br>Model number selection | オプション記号<br>Optional symbols | 出力 Output            |             |           | 入力信号<br>Input signal         | 電源<br>Power source | ページ<br>Page No. |
|--|------------------------------|-----------------------------|----------------------|-------------|-----------|------------------------------|--------------------|-----------------|
|  |                              |                             | 警報 Alarm             | アナログ Analog | パルス Pulse |                              |                    |                 |
| 瞬時表示計<br>Instantaneous indicator                         | EM30DT                       | 3DT                         | トランジスタ<br>Transistor | —           | —         | パルス Pulse                    | DC24V              | 268             |
|  | EM30DTP                      | 3DTP                        |                      | —           | —         |                              |                    |                 |
| 瞬時表示計<br>Instantaneous indicator                         | EM40ET                       | 4ET                         | トランジスタ<br>Transistor | 4-20mA      | ●         | パルス Pulse                    | DC24V              | 270             |
|  | EM40ETN                      | 4ETN                        |                      | 1-5V        |           |                              |                    |                 |
|  | EM40ETV                      | 4ETV                        |                      | 0-5V        |           |                              |                    |                 |
| 瞬時流量/温度表示計<br>Instantaneous flow / temperature indicator | EM45RT                       | 5RT                         | トランジスタ<br>Transistor | 4-20mA      | —         | パルス、温度<br>Pulse, temperature | DC24V              | 272             |
|  | EM45RTN                      | 5RTN                        |                      | 1-5V        |           |                              |                    |                 |
| 瞬時表示計<br>Instantaneous indicator                         | EM0100DT                     | DT                          | トランジスタ<br>Transistor | —           | —         | パルス Pulse                    | DC24V              | 274             |
|  | EM0100DR                     | DR                          |                      | リレー Relay   | —         |                              |                    |                 |
| 瞬時・積算表示計<br>Instantaneous / integrating indicator        | EM0900ET                     | 9ET                         | トランジスタ<br>Transistor | 4-20mA      | —         | パルス Pulse、<br>4-20mA         | DC24V              | 276             |

## 変換器 Converter

| 品名<br>Product name          | 型式<br>Model number selection | オプション記号<br>Optional symbols | 出力 Output    |             |           | 入力信号<br>Input signal | 電源<br>Power source | ページ<br>Page No. |
|-----------------------------|------------------------------|-----------------------------|--------------|-------------|-----------|----------------------|--------------------|-----------------|
|                             |                              |                             | 警報 Alarm     | アナログ Analog | パルス Pulse |                      |                    |                 |
| アナログ変換器<br>Analog converter | EX30AR-I                     | ARI                         | リレー<br>Relay | 4-20mA      | —         | パルス Pulse            | DC24V              | 266             |
|                             | EX30AR-IP                    | ARIP                        |              | 0-5V        |           |                      |                    |                 |
|                             | EX30AR-V                     | ARV                         |              | 0-10V       |           |                      |                    |                 |
|                             | EX30AR-VP                    | ARVP                        |              | 1-5V        |           |                      |                    |                 |
|                             | EX30AR-VW                    | ARW                         |              | 1-10V       |           |                      |                    |                 |
|                             | EX30AR-VWP                   | ARWP                        |              |             |           |                      |                    |                 |
|                             | EX30AR-VN                    | ARN                         |              |             |           |                      |                    |                 |
|                             | EX30AR-VNP                   | ARNP                        |              |             |           |                      |                    |                 |
|                             | EX30AR-VT                    | ART                         |              |             |           |                      |                    |                 |
|                             | EX30AR-VTP                   | ARTP                        |              |             |           |                      |                    |                 |

## オプション記号について Optional symbols

- 流量センサの型式末尾にオプション記号を記載していただくと、流量センサと表示計、又は変換器をセットで納入いたします。
- それぞれの表示計・変換器に流量表示に必要な流量センサの周波数等の固有データを入力します。\*1、\*2
- 対応する流量センサと表示計、又は変換器には同一のシリアルNo.を記載します。
- オプション記号を使用しないで、表示計・変換器を単独で購入することも可能です。\*3
- \*1: 警報出力値等のその他の設定したい内容があればご指示願います。
- \*2: パルスと4-20mAを出力する流量センサで且つ、両方の信号を入力できる表示計を選定した場合、どちらの信号を表示計に入力するかご指示願います。  
ただし、カルマン流量計SSFシリーズとセットの場合、4-20mA入力限定となります。
- \*3: 表示計は設定なしで販売しておりますが、変換器は必ず当社でセンサの周波数を入力します。表示計を単独で購入いただく場合でも、パラメータ設定をしてご提供することが可能です。その場合、設定内容をご指示願います。
  - If the optional symbols are described at the end of the type of the flow sensor, we could deliver the flow sensor and indicator, or converter as a set.
  - The peculiar data necessary for the flow display sensor, such as frequency of the flow sensor, are entered to each indicator \* converter. \*1, \*2
  - The same serial number is described on the flow sensor and indicator, or converter to be paired.
  - The indicator \* converter can individually purchased, even if the optional symbol is not used. \*3
- \*1: Should you have any other setting content, such as alarm output value, please instruct us for your application.
- \*2: If selected the indicator which can produce a pulse and 4-20 mA and further can enter both signals, then please instruct us which signal should be entered to the indicator.  
Provided that if Karman flowmeter typed SSF Series are set, it is limited to the input of 4-20 mA.
- \*3: The indicator are sold without settings, but concerning the converter, the frequency of the sensor is surely configured at our company. Even if purchasing single unit of the indicator, we can supply it after having set the parameters.  
In that case the contents of the settings should be instructed to us.

## マニホールド付の流量センサのオプション記号について About the optional symbol for the flow sensor with a manifold

- トフペインシリーズはマニホールドに複数の流量センサを有していますが、オプション記号で選定いただくと搭載している流量センサの数量の表示計をセットいたします。  
例) TPS25-HA-S3-B10-02-05R-D-3DTP … 表示計EM30DTPを3系統分セットします。
- Although the manifold of the Tofpine Series has been installed a plurality of the flow sensors, we can set as many indicators as the number of the mounted flow sensor should you select it by the optional symbols.  
For example) TPS25-HA-S3-B10-02-05R-D-3DTP \* \* \* The indicator of EM30DTP is set for three systems.

## その他注意点 Other points of note

- 表示計・変換器のセンサ駆動電源を使用される場合、流量センサの電源容量をご確認願います。カルマン流量計VSPシリーズの場合、センサ駆動電源を使用できません。  
When using the driven power source of the indicator \* converter, the capacity of the power source for the flow sensor should be checked. In the case of the VSP Series of Karman flowmeter, the sensor-driven power source cannot be used.