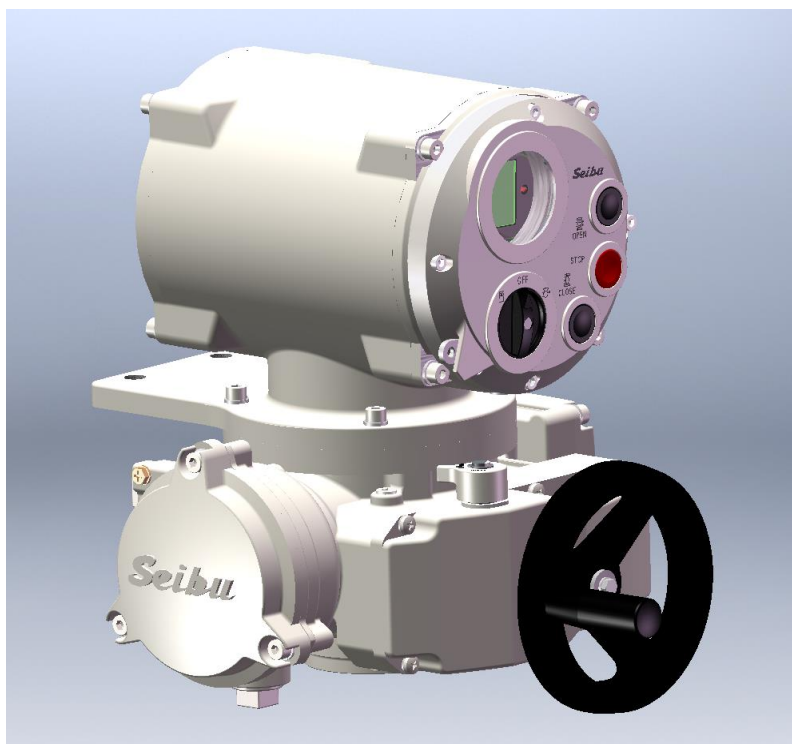


Seibu

電動バルブアクチュエータ
ELECTRIC VALVE ACTUATOR

セムフレックス VP シリーズ
Semflex-VP Series

技術資料
TECHNICAL INFORMATION



西部電機株式会社

SEIBU ELECTRIC & MACHINERY CO., LTD.

Semflex-VP Series Technical Data

○ Contents

1. Specification
2. Standard Drawing List
3. Specification List
4. Electrical List
5. Motor Current Value List
7. Stem bush Dimensional drawing
8. Dimensions
9. Structural drawing
10. External reference connection diagram

| | | | |
|----------------------------|----------|---------|--|
| Semflex-VP Spec.Sheet A | Customer | Our No. | Qt'y |
| | Your No. | Date | Mass kg |
| No. 1 | Project | Use | |

| | | | |
|-----------------------|------------------|-------------|-------------|
| V A L V E | Valve No. | Type | Size |
| | | | |

| | | | | |
|---|--|---|---|--|
| A C T U A T O R S P E C | Type | | | |
| | Semflex-VP - / - | | | |
| | Series () Permissible torque | | Special specification | |
| | 010 (125N·m) 020 (250N·m) 060 (600N·m) 1 (1000N·m) 2 (2000N·m) | | 『 OP 』 | |
| | Turning direction (Face to valve) | | Self-diagnosis | |
| | R : Clockwise Close Face to L : Clockwise Open Valve | | S : Nothing(Standard) D : Self-diagnosis | |
| | Power supply | | Output transmitter | |
| | 1 : 1φ 100/110V 2 : 1φ 200/220V 3 : 3φ 200/220V 4 : 3φ 400/440V | | S : Nothing(Standard) A : Output transmitter(DC4~20mA) P : Proportion control(DC4~20mA) | |
| | Travel Time sec/90° 50/60Hz | | External output | |
| | 1 : 9/7.5 VP-010 2 : 18/15 VP-010, 020, 060, 1 3 : 36/30 VP-020, 060, 1, 2 4 : 72/60 VP-2 | | S : 5points(Standard) F : PROFIBUS R1 : 9points R2 : 9points(Latching type) | |
| Motor Spec (With Brake) | | Explosion-proof | | |
| Output W Ins.Class B Rating 15min Power supply V Hz | | S : Nothing(Standard) T : Exd II BT4 | | |
| Position * ↓ Actuator Frange | | | | |
| <input type="checkbox"/> 1(Standard) <input type="checkbox"/> 2(R 90°) <input type="checkbox"/> 3(L 90°) <input type="checkbox"/> 4(Reverse) | | | | |
| | | | | |
| Stembush Spec | | Key Position | | |
| <input type="checkbox"/> Nece-ssity Processing Stembush Dr/# Key Position Key Size Dia. mmH8 mmH8 <input type="checkbox"/> Unnecessary <input type="checkbox"/> Previously sent <input type="checkbox"/> Include | | Clockwise Close Clockwise Open | | |
| <input type="checkbox"/> Unnecessary | | 全開状態を示す 全開状態を示す | | |
| Set torque (N·m) | | | | |
| Open N·m | | | | |
| Close N·m | | | | |

| | | | | | |
|----------|--|--|---|-------------|-----------------|
| Cort ing | <input type="checkbox"/> N8 (Standard) | <input type="checkbox"/> Specification → | - | Overall Dwg | Wirinig Diagram |
|----------|--|--|---|-------------|-----------------|

| | | | | | | |
|---|--|-----|----------|------|-----|-----|
| R E M A R K S | | Rev | Division | Date | Dwn | Okd |
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| | | 3 | | | | |
| | | 4 | | | | |
| Seibu Electric & Machinery Co.LTD | | | | | | |
| Accessories | | | | | | |
| <input type="checkbox"/> ○ <input type="checkbox"/> × | | | | | | |

Standard Drawings List

| Name | Number | Type and Specification | Remarks |
|--------------------------------------|---------|--|---------|
| Dimension | 3395373 | VP-010, VP-020 | |
| Dimension | 3395374 | VP-060 | |
| Dimension | 3395375 | VP-1, VP-2 | |
| Structual drawing | 3395376 | Common to VP series | |
| External reference connecton diagram | 3M01245 | Single phase power supply, no opening transmitter (standard specification) | |
| External reference connecton diagram | 3M00980 | Three-phase power supply, no opening transmitter (standard specification) | |
| External reference connecton diagram | 3M01246 | Single phase power supply, with opening transmitter (DC4-20mA output) | |
| External reference connecton diagram | 3M01247 | Three-phase power supply, opening transmitter available (DC4-20mA output) | |
| External reference connecton diagram | 3M01184 | Single-phase power supply, with proportional control function (4-20mA DC input / output) | |
| External reference connecton diagram | 3M01097 | Three-phase power supply, with proportional control function (4 to 20mA DC input / output) | |
| | | | |
| | | | |
| | | | |

Specification List

| Type | VP-010 | VP-020 | VP-060 | VP-1 | VP-2 | | | | | | |
|--|-----------------------|--|---|-------|-------|-------|-------|-------|-------|-------|--|
| Max Torque (N·m) | 125 | 250 | 600 | 1000 | 2000 | | | | | | |
| Operating time (sec/90°) 50/60Hz | 9/7.5 | 18/15 | 18/15 | 36/30 | 18/15 | 36/30 | 18/15 | 36/30 | 36/30 | 72/60 | |
| Mass (kg) | 25 | | 30 | | 52 | | | | | | |
| Flange(ISO flange) | F07 | | F10 | | F14 | | | | | | |
| Maximum valve stem diameter (mm) | 28 | | 42 | | 60 | | | | | | |
| M o t o r | Output (W) | | 40 | | 100 | | 200 | | | | |
| | Power supply | | Single-phase 100/110V 200/220V 50/60Hz Three-phase 200/220V 400/440V 50/60Hz | | | | | | | | |
| | Type | | Induction motor | | | | | | | | |
| | Heat resistance class | | B | | | | | | | | |
| | Brake | | With permanent brake | | | | | | | | |
| | Time rating | | 15分 | | | | | | | | |
| | Thermal protector | | Built in motor (set value $120 \pm 5^{\circ}\text{C}$) | | | | | | | | |
| Manual operation | | With manual handle, switch to manual operation with lever, return to electric with electric operation command | | | | | | | | | |
| Manual operation force (N·m) | | 72 | 144 | 175 | 96 | 192 | | | | | |
| Handle rotation speed (per 90 degrees of output shaft) | | 20.8 | | 26.0 | | 79.3 | | | | | |
| Data backup power supply | | The first backup: A nickel hydride battery 3.6V (rechargeable battery) 3 month backup. The second backup: A lithium battery 6.0V (dry battery) 1 year backup. | | | | | | | | | |
| Position detection | | Contactless potentiometer | | | | | | | | | |
| Torque detection | | Contactless potentiometer | | | | | | | | | |
| LCD display | | Opening (0 to 100%), abnormal icon, indicator, 3 character data | | | | | | | | | |
| Operation, setting | | Main panel operation switch (open / close / stop button, remote-site switch) | | | | | | | | | |
| Terminal points | | Motor (M4-3P), control (M4-32P) | | | | | | | | | |
| Lead inlet | | 3-G1 | | | | | | | | | |
| Standard paint | | Epoxy-based Munsell N8 (Gray) | | | | | | | | | |
| Ambient temperature | |  -20~+60°C (+80°C Option) | | | | | | | | | |
| Environmental condition | | Impact 30G or less Vibration 0.5G or less, within 90 minutes | | | | | | | | | |
| Protective structure | | Dust-proof and waterproof structure Protection class IP68 | | | | | | | | | |
| Optional specifications | | Designated paint (Please specify the paint specifications.) Opening transmitter DC 4-20mA output Proportional control function 4-20mA DC input / output 9 contact signal output specifications Profibus DP specification With waterproof connector (Please indicate the wire outer diameter and the lead-in position.) Explosionproof specification ExdIIBT4 (* Only available for three-phase power supply) Self-diagnosis function Motor heat resistance class F | | | | | | | | | |

○ Electrical parts list

| No. | Product name | Form (specifications) | Maker | Remarks |
|-----|---|---|-------------------|---|
| 1 | Motor | Power supply: ϕ 1 100/110V, 200/220V ϕ 3 200/220V, 400/440V Out put: 40W、100W、200W Number of poles: 4poles Class: B、 F Time rating: 15 minutes Built-in thermal protector Operating temperature: $120 \pm 5^{\circ}\text{C}$ | Seibu | |
| 2 | Output relay | G5SB-14-DC24 | Seibu (Omron) | AC 250V 3A DC 30V 5A |
| 3 | Display board | F352287 | Seibu | |
| 4 | Control board | F352196 | Seibu | |
| 5 | Power supply board | F352290 | Seibu | |
| 6 | Reversible device | LC2-K1601K7 | TOSHIBA | |
| 7 | Trance | OI-56-BL-NC | | 30VA |
| 8 | battery1 | LR6C | FUJITSU | 3.6V |
| 9 | battery2 | HR3UF | FUJITSU | General-purpose AA battery |
| 10 | Position detection Potentiometer | CP-2HB | MIDORI PRECISIONS | |
| 11 | Torque detection Potentiometer | CP-2HB | MIDORI PRECISIONS | |
| 12 | Terminal | OTB-7954 For power: M4-3P For control: M4-32P | Seibu | For power: AC 400V 30A For control: AC 250V 5A |
| 13 | For internal connection connector | XHconnector | JST | AC/DC 250V 3A |

○ Motor current list

<Single phase motor>

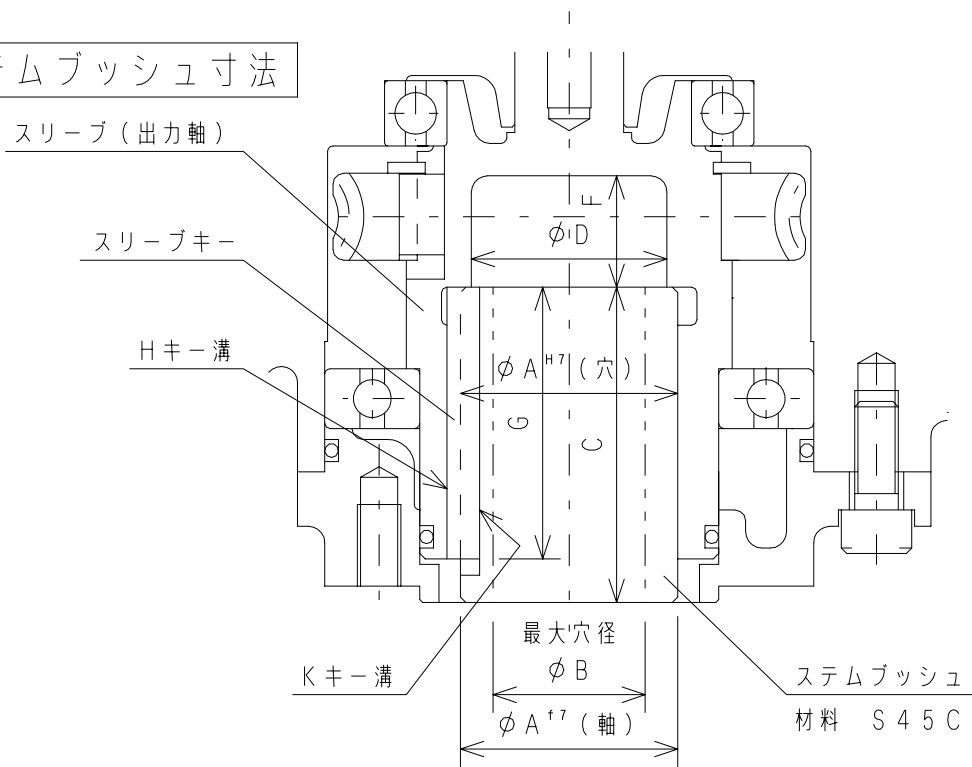
| Type | Motor type Capacitor capacity | Voltage (V) | frequency (Hz) | Rated current value (A) | Starting current value (A) | Nameplate current value (A) |
|--------|---|----------------|-------------------|-------------------------------|----------------------------------|-----------------------------------|
| VP-010 | MSBI-100-40SE 26 μ F | 100 | 50 | 1.40 | 2.31 | 1.90 |
| | | 100 | 60 | 1.44 | 2.34 | 1.94 |
| | | 110 | 50 | 1.73 | 2.61 | 2.23 |
| | | 110 | 60 | 1.50 | 2.59 | 2.00 |
| VP-020 | MSBI-200-40SE 7 μ F | 200 | 50 | 0.72 | 1.20 | 1.22 |
| | | 200 | 60 | 0.78 | 1.19 | 1.28 |
| | | 220 | 50 | 0.88 | 1.34 | 1.38 |
| VP-060 | MSBI-100-100SC 38 μ F | 100 | 50 | 2.44 | 3.25 | 2.94 |
| | | 100 | 60 | 2.48 | 3.38 | 2.98 |
| | | 110 | 50 | 2.74 | 3.60 | 3.24 |
| | | 110 | 60 | 2.50 | 3.71 | 3.00 |
| | MSBI-200-100SC 8 μ F | 200 | 50 | 1.56 | 1.86 | 2.06 |
| | | 200 | 60 | 1.13 | 1.82 | 1.63 |
| VP-1 | MSBI-100-200SB 38 μ F \times 3 units | 100 | 50 | 4.98 | 9.33 | 5.48 |
| | | 100 | 60 | 7.43 | 9.63 | 7.93 |
| | | 110 | 50 | 5.15 | 10.27 | 5.65 |
| | | 110 | 60 | 7.43 | 10.56 | 7.93 |
| VP-2 | MSBI-200-200SB 8 μ F \times 3 units | 200 | 50 | 2.18 | 4.34 | 2.68 |
| | | 200 | 60 | 3.00 | 4.45 | 3.50 |
| | | 220 | 50 | 2.28 | 4.87 | 2.78 |
| | | 220 | 60 | 2.99 | 4.91 | 3.49 |

<Three-phase motor>

| Type | Motor type Capacitor capacity | Voltage (V) | frequency (Hz) | Rated current value (A) | Starting current value (A) | Nameplate current value (A) |
|--------|----------------------------------|----------------|-------------------|-------------------------------|----------------------------------|-----------------------------------|
| VP-010 | MSBI-200-40TA | 200 | 50 | 0.53 | 1.27 | 1.03 |
| | | 200 | 60 | 0.45 | 1.19 | 0.95 |
| | | 220 | 50 | 0.59 | 1.40 | 1.09 |
| | | 220 | 60 | 0.48 | 1.28 | 0.98 |
| VP-020 | MSBI-400-40TA | 400 | 50 | 0.26 | 0.63 | 0.76 |
| | | 400 | 60 | 0.22 | 0.58 | 0.72 |
| | | 440 | 50 | 0.29 | 0.68 | 0.79 |
| VP-060 | MSBI-200-100TA | 200 | 50 | 0.74 | 1.89 | 1.24 |
| | | 200 | 60 | 0.67 | 1.77 | 1.17 |
| | | 220 | 50 | 0.76 | 2.00 | 1.26 |
| | | 220 | 60 | 0.67 | 1.92 | 1.17 |
| | MSBI-400-100TA | 400 | 50 | 0.37 | 0.94 | 0.87 |
| | | 400 | 60 | 0.34 | 0.90 | 0.84 |
| VP-1 | MSBI-200-200TB | 440 | 50 | 0.39 | 0.99 | 0.89 |
| | | 440 | 60 | 0.34 | 0.97 | 0.84 |
| | | 200 | 50 | 1.10 | 4.57 | 1.60 |
| | | 200 | 60 | 0.99 | 4.31 | 1.49 |
| VP-2 | MSBI-400-200TB | 220 | 50 | 1.06 | 5.07 | 1.56 |
| | | 220 | 60 | 0.96 | 4.76 | 1.46 |
| | | 400 | 50 | 0.53 | 2.35 | 1.03 |
| | | 400 | 60 | 0.48 | 2.24 | 0.98 |
| VP-2 | MSBI-400-200TB | 440 | 50 | 0.52 | 2.48 | 1.02 |
| | | 440 | 60 | 0.47 | 2.48 | 0.97 |

※ The current value indicated on the nameplate is the motor's rated current value plus the control circuit current value (0.5A).

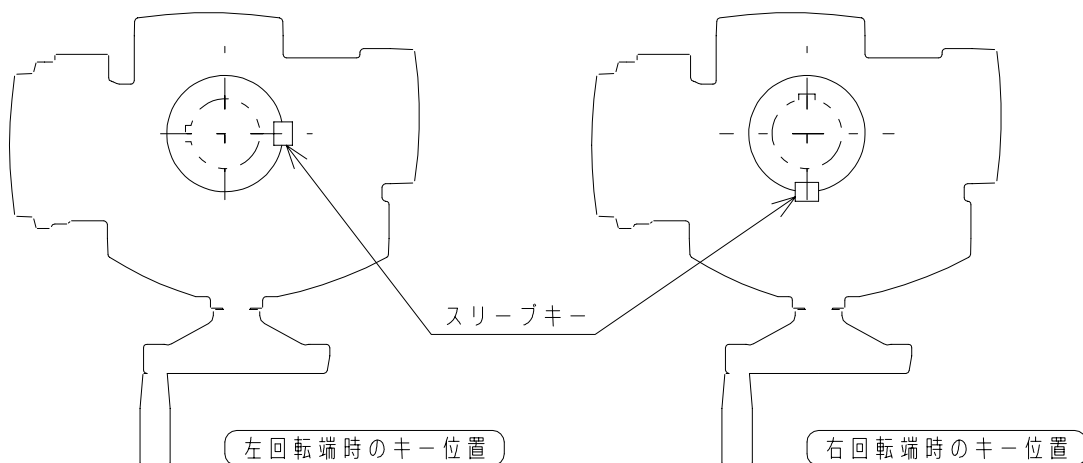
ステムブッシュ寸法



| 形 式 | A | B | C | D | F | G | Hキー溝 | Kキー溝 |
|-------------|----|----|----|----|------|------|--------|--------|
| VP-010, 020 | 40 | 28 | 58 | 36 | 20.5 | 50 | 6×2.8 | 6×3.5 |
| VP-060 | 60 | 42 | 65 | 50 | 21 | 59 | 8×3.3 | 8×4.0 |
| VP-1, 2 | 80 | 60 | 90 | 70 | 45 | 82.5 | 14×3.8 | 14×5.5 |

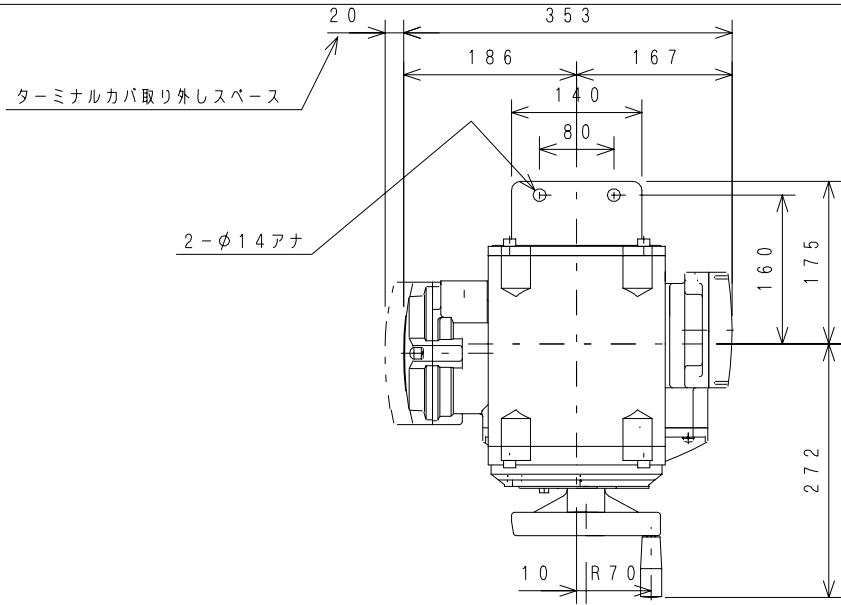
(注) スリーブキーは、最大出力トルクからサイズを決めており、軸径Aに対するJISの推奨サイズには適合しません。
 ただし、キー自体の寸法は、新JIS B 1303-1976を採用しています。

スリーブキー位置



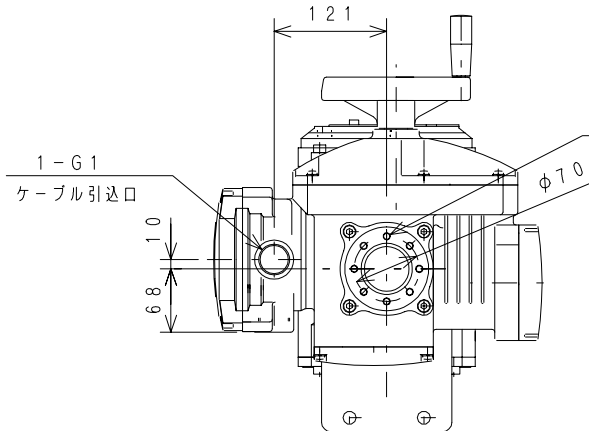
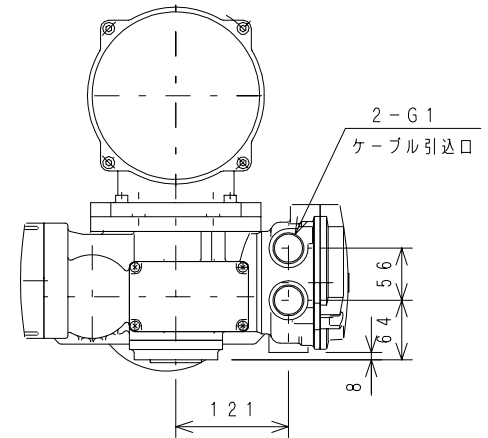
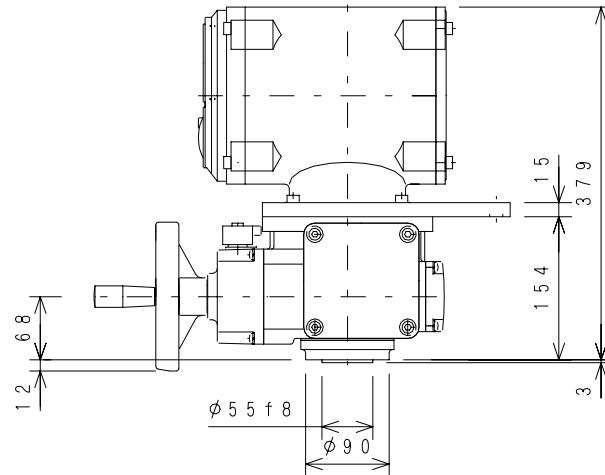
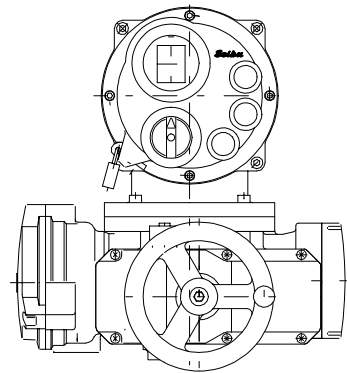
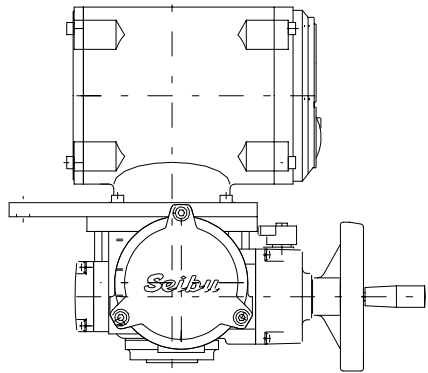
(注) ステムブッシュ内径の弁軸用キー溝は、本図を参考に加工して下さい。
 本図は、アクチュエータからバルブに向かって見た場合を示しています。

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| | | | | UNIT mm | SCALE | ステムブッシュ寸法図 |
| | | | | 三 角 法 | 日 付 07.08.23 | |
| | | | | 3RD. ANG. PROJ. | DATE | |
| 承認 APP. | 照査 CKD. | 製図 DWN. | 形式 TYPE | VPシリーズ | | |
| 西部電機株式会社 | | | | 図 番 DWG. NO. | FILE | |
| 改訂 | 日付 | 氏名 | 承認 | 内 容 | 4991956 | (r) |
| REV. | DATE | DWN. | APP. | DESCRIPTION | SEIBU Electric & Machinery Co., Ltd. | |

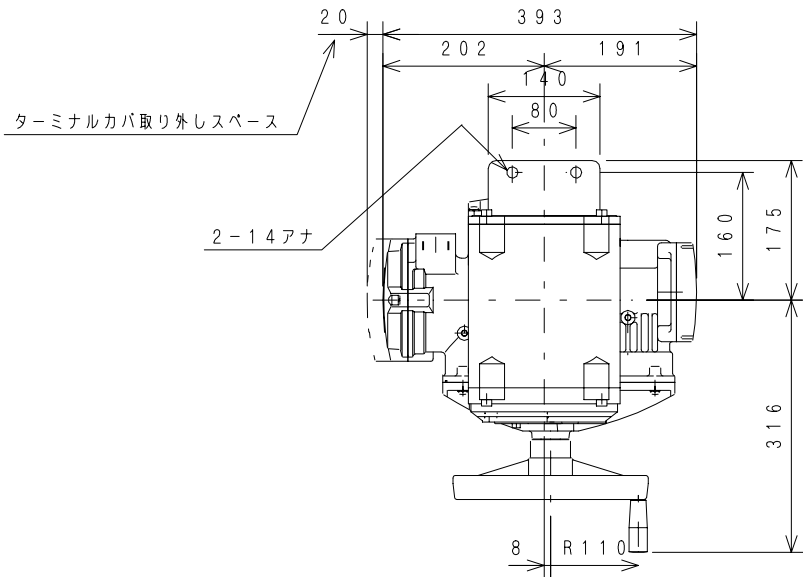


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 発注時には、下記項番により取付方向を指示願います。
 指示無き場合は、項番1にて納入致します。

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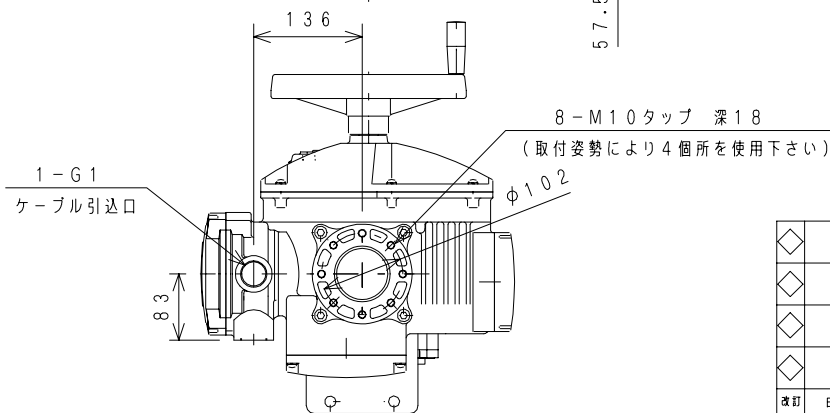
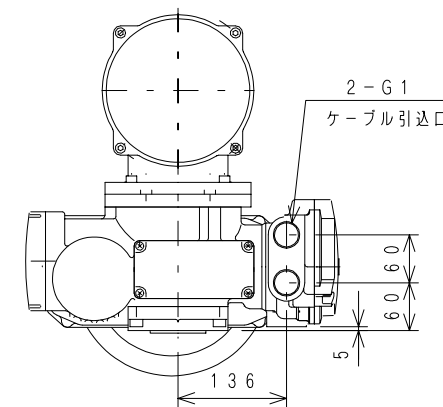
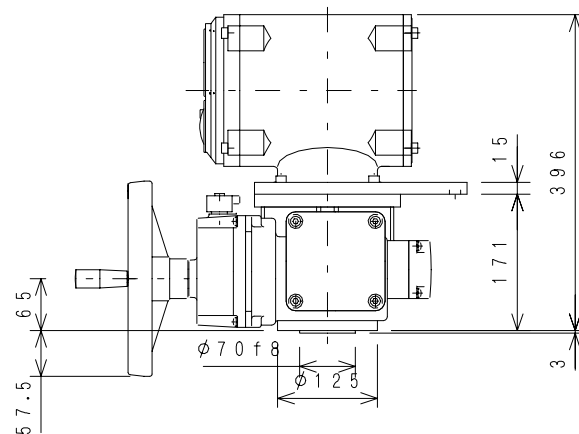
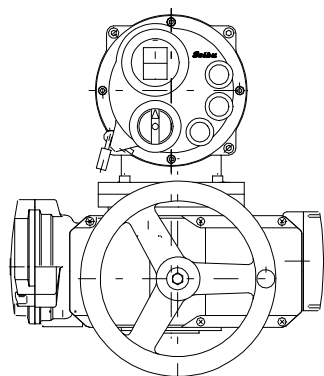
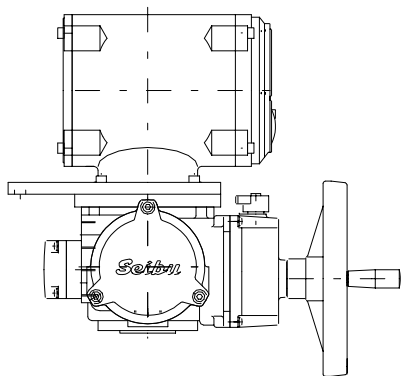


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| ◇ | | | | 西部電機株式会社 | | 図番 DWG. NO. 3395373 |
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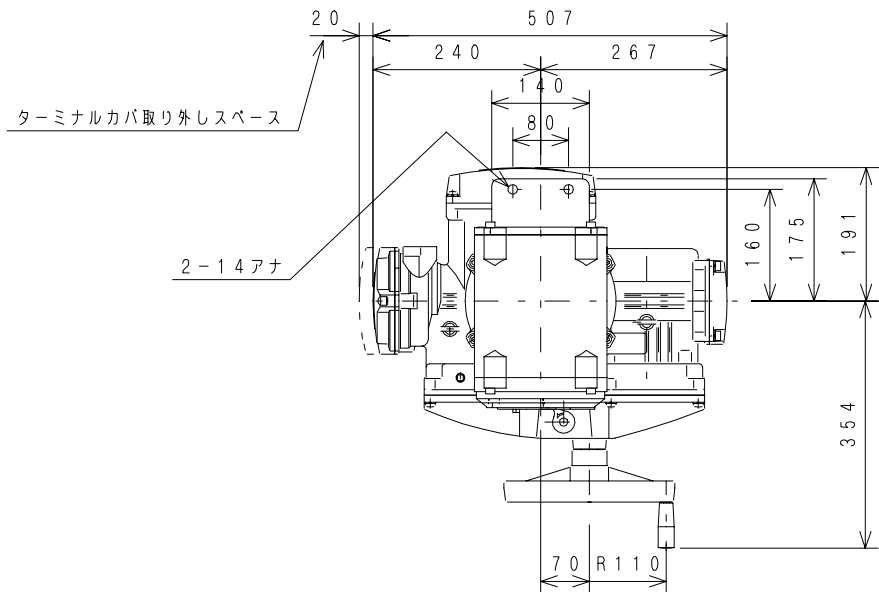


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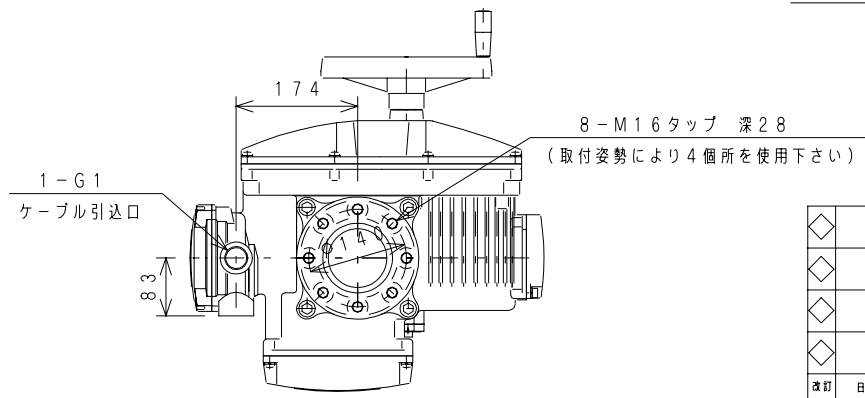
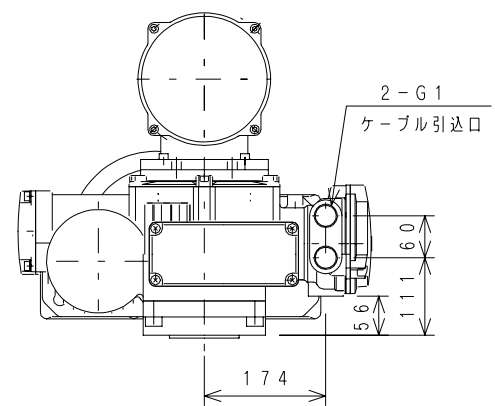
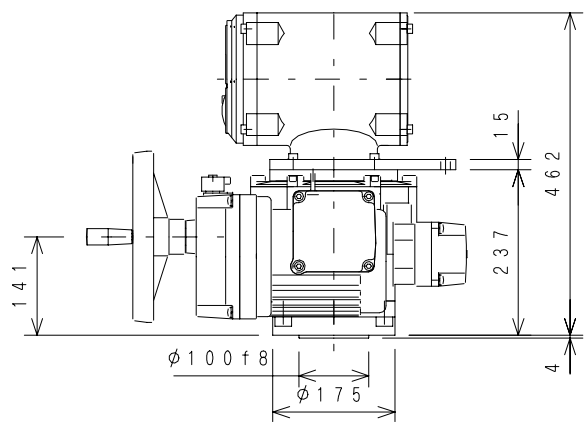
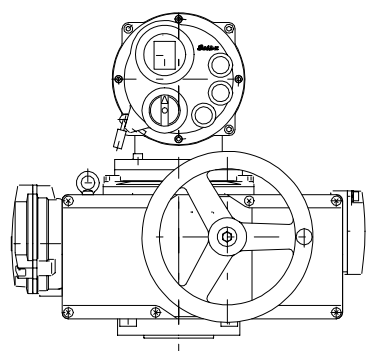
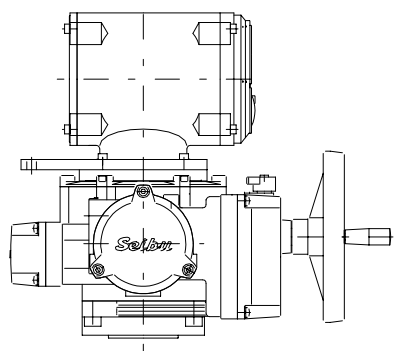


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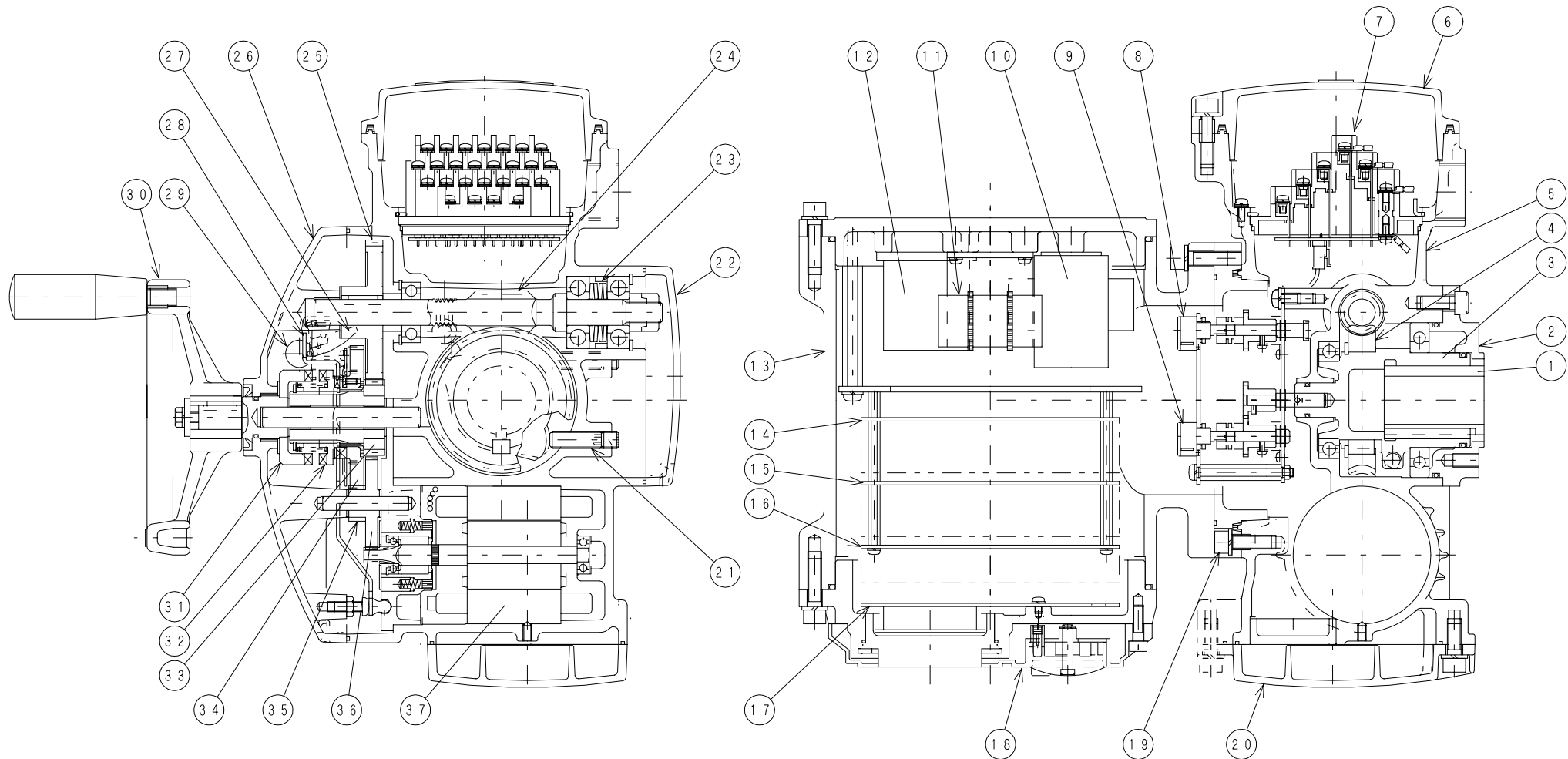


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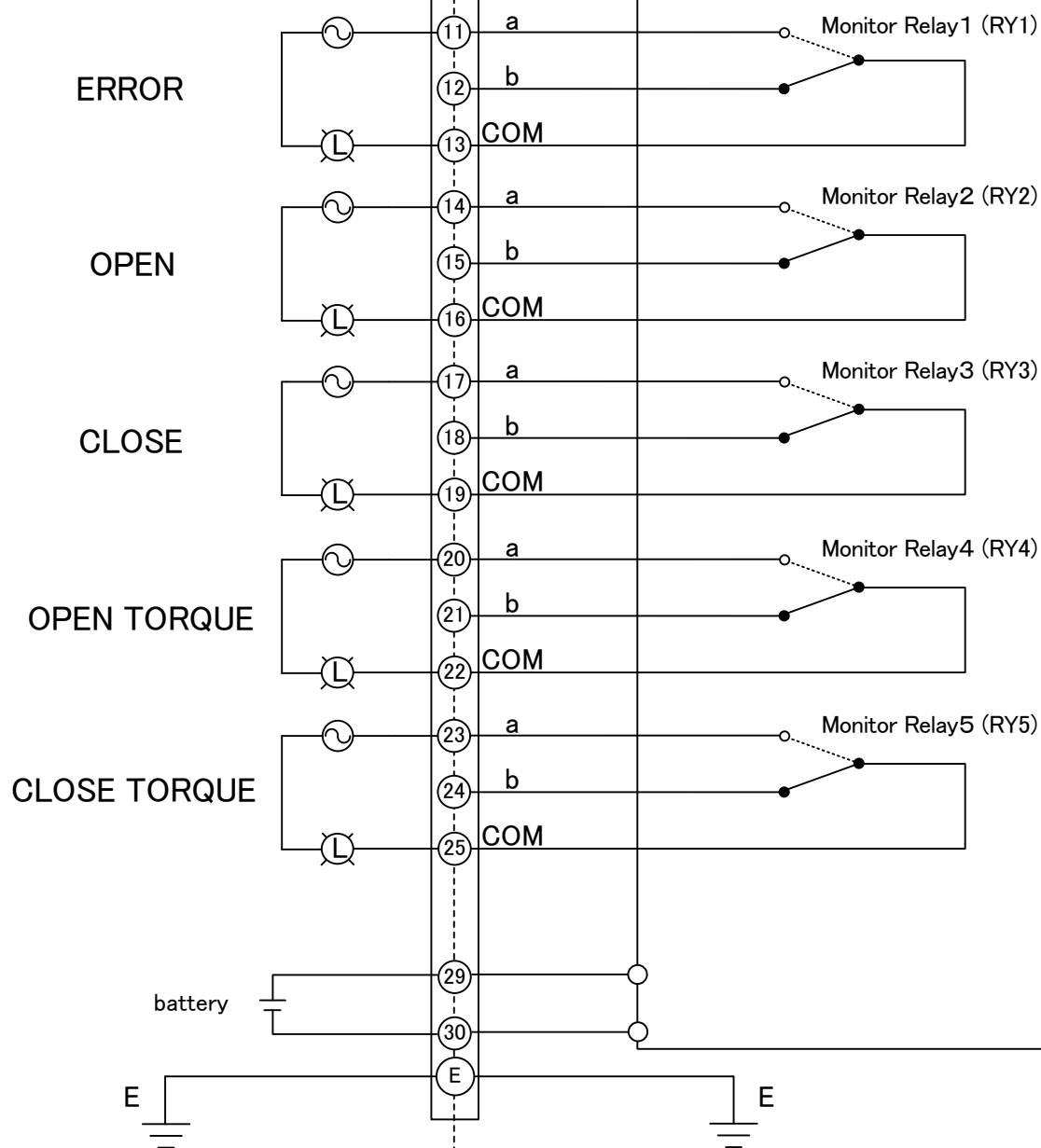
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|-------|------------------|--------------------------|--------|-------|----------|--------------------|--------|
| 1 | ステムブッシュ | Stem Bushing | 1 | 20 | オプションカバー | Option Cover | 1 |
| 2 | ベース | Base | 1 | 21 | ストップ | Stopper | 2 |
| 3 | スリーブ | Sleeve | 1 | 22 | ストップカバー | Stopper Cover | 1 |
| 4 | ウォームホイール | Worm Wheel | 1 | 23 | トルクスプリング | Torque Spring | 1set |
| 5 | ギヤケース | Gear Case | 1 | 24 | ウォーム | Worm | 1 |
| 6 | ターミナル カバ | Terminal Cover | 1 | 25 | F ギヤ | Gear F | 1 |
| 7 | ターミナル | Terminal Block | 1 | 26 | ギヤカバー | Gear Cvoer | 1 |
| 8 | トルク検出ポテンシオメータ | Potentio Meter | 1 | 27 | カム | Cam | 1 |
| 9 | 位置検出ポテンシオメータ | Potentio Meter | 1 | 28 | シフタ | Shifter | 1 |
| 10 | トランス | Transformer | 1 | 29 | キリカエシャフト | Change Lever Shaft | 1 |
| 11 | バッテリー | Battery | 2 | 30 | 手動ハンドル | Handwheel | 1 |
| 12 | 電磁閉器 | Magnet Contacter | 1 | 31 | ハンドルクラッチ | Handwheel Clutch | 1 |
| 13 | インテリジェントケース | Electric Unit Case | 1 | 32 | クラッチ | Clutch | 1 |
| 14 | 電源基板 | Power Source Board | 1 | 33 | E ギヤ | Gear E | 1 |
| 15 | プロフィバス基板 (オプション) | Profi-Bus Board (option) | 1 | 34 | D ギヤ | Gear D | 1 |
| 16 | コントロール基板 | Control Board | 1 | 35 | C ギヤ | Gear C | 1 |
| 17 | 操作基板 | Operation Board | 1 | 36 | B ギヤ | Gear B | 1 |
| 18 | 操作パネル | Operation Panel | 1 | 37 | モータ | Motor | 1 |
| 19 | ベース | Base | 1 | | | | |

| | | | |
|--|-----------------|---------------|----------------------|
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 単位 mm | 尺 度 2/5 | 図 名 TITLE 構造図 |
| | UNIT mm | SCALE 2/5 | Construction Drawing |
| | 三 角 法 日 付 | DATE 07.08.23 | 形式 TYPE |
| | 3RD. ANG. PROJ. | | VPシリーズ |
| 承認 APP. | 図番 CKD. | 製図 DWN. | 図 番 DWG. NO. |
| | | | 3395376 |
| 改訂 | 日付 | 氏名 承認 | 内 容 |
| REV. | DATE | DWN. APP. | DESCRIPTION |
| 西部電機株式会社 | | | FILE |
| SEIBU Electric & Machinery Co., LTD. | | | (R) |

POWER
1 φ 100V/200V
50/60Hz

Dry contact
OPEN
CLOSE
STOP/RESET
ESD
COM

INTELLIGENT UNIT



Relay capacity
AC250V/3A
DC30V/3A

| | |
|-------------------------------------|--------------------|
| REV. | 3M01245 |
| 図名 | Connecting Diagram |
| 形式 | Semflex-VP |
| 図番 | DWG. NO. 3M01245 |
| 尺度 | SCALE |
| 日付 | DATE |
| 19.04.16 | |
| 3RD. ANG. PROJ. | 角法 |
| 照査 | CKD. |
| 製図 | DWN. |
| Masaki, Mori | |
| 承認 | APP. |
| Masaki, Mori | |
| 西部電機株式会社 | |
| SEBU Electric & Machinery CO., LTD. | |
| 内容 | DESCRIPTION |
| 承認 | APP. |
| 氏名 | DWN. |
| 日付 | DATE |
| 改訂 | REV. |

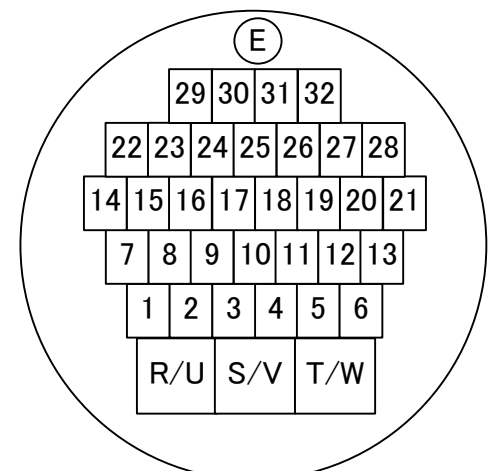
(Reference connection diagram)

| SIGNAL | TM NO. | POSITION | | | |
|---------|--------|----------|-----|-----|------|
| | | CLOSE | HF1 | HF2 | OPEN |
| OPEN:a | 14-16 | --- | --- | --- | --- |
| OPEN:b | 15-16 | --- | --- | --- | --- |
| CLOSE:a | 17-19 | --- | --- | --- | --- |
| CLOSE:b | 18-19 | --- | --- | --- | --- |

— : Contact ON - - - - : Contact OFF

| SEGAL | TM NO. | OPERATION |
|----------------|--------|--|
| ERROR:a | 11-13 | When abnormality occurs, the point of contact is turned on. |
| ERROR:b | 12-13 | When abnormality occurs, the point of contact is turned off. |
| OPEN TORQUE:a | 20-22 | When open direction is over torque, the point of contact is turned on. |
| OPEN TORQUE:b | 21-22 | When open direction is over torque, the point of contact is turned off. |
| CLOSE TORQUE:a | 23-25 | When close direction is over torque, the point of contact is turned on. |
| CLOSE TORQUE:b | 24-25 | When close direction is over torque, the point of contact is turned off. |

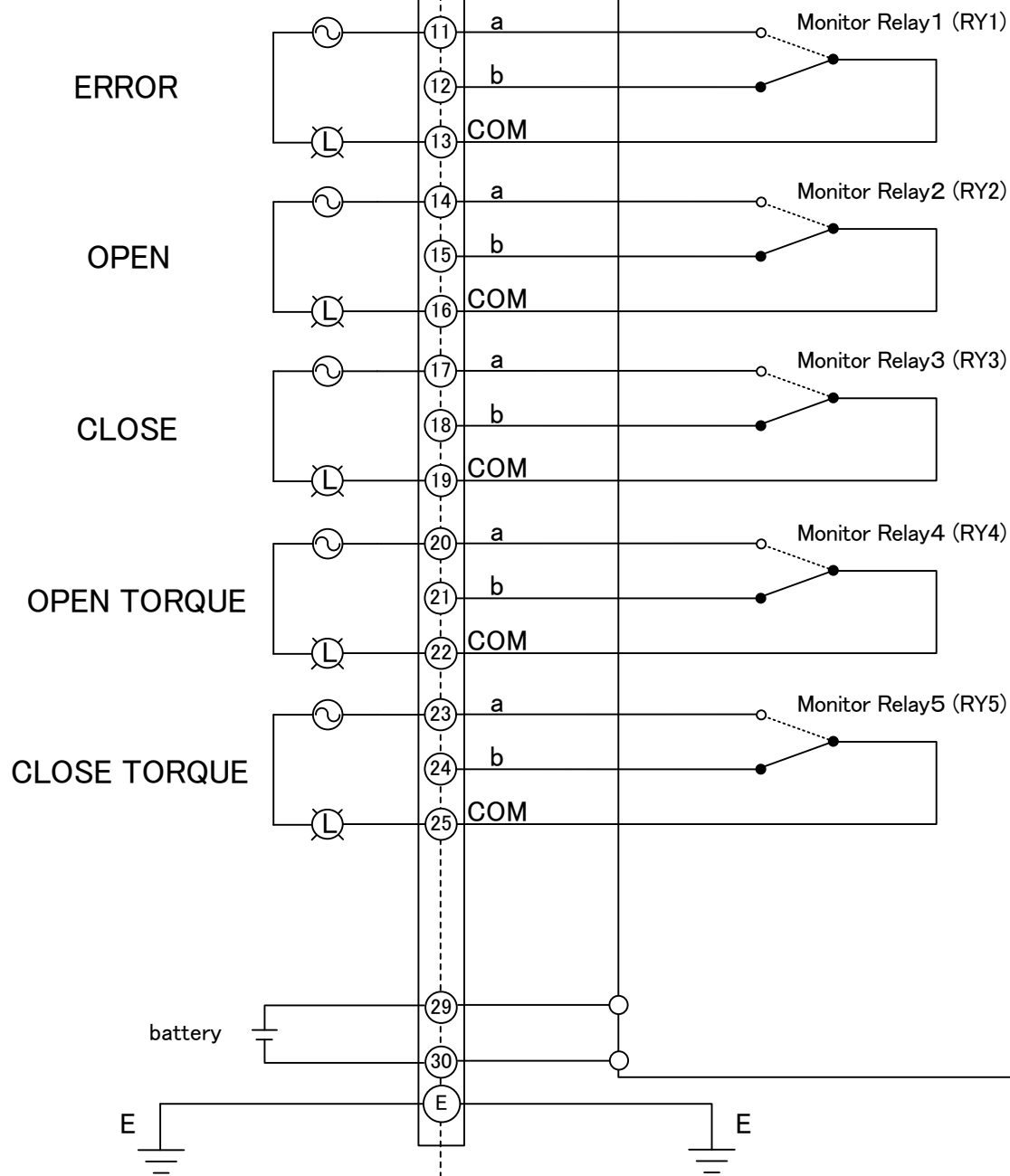
TERMINAL ARRAY



POWER
3φ 200V/400V
50/60Hz

Dry contact
OPEN
CLOSE
STOP/RESET
ESD
COM

INTELLIGENT UNIT



Relay capacity
AC250V/3A
DC30V/3A

| | |
|-----------------|--------------------------------------|
| REV. | 3M00980 |
| 圖名 | Connecting Diagram |
| 形式 | Semflex-VP |
| 圖番 | DWG. NO. 3M00980 |
| 尺度 | SCALE |
| 日付 | DATE '17.05.22 |
| 3RD. ANG. PROJ. | 製圖 DWN. Nakahama |
| 承認 APP. | — |
| 承認 | Mori |
| 氏名 | 西 部 電 機 株 式 會 社 |
| 日付 | SEIBU Electric & Machinery CO., LTD. |
| 改訂 | |
| REV. | |

(STANDARD)

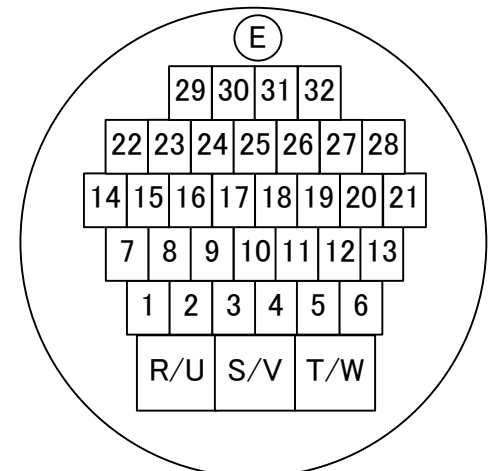
(Reference connection diagram)

| SIGNAL | TM NO. | POSITION | | | |
|---------|--------|----------|-----|-----|------|
| | | CLOSE | HF1 | HF2 | OPEN |
| OPEN:a | 14-16 | --- | --- | --- | --- |
| OPEN:b | 15-16 | --- | --- | --- | --- |
| CLOSE:a | 17-19 | --- | --- | --- | --- |
| CLOSE:b | 18-19 | --- | --- | --- | --- |

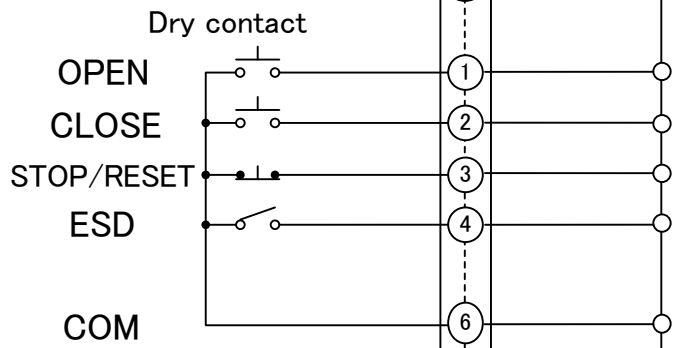
— : Contact ON - - - - : Contact OFF

| SEGAL | TM NO. | OPERATION |
|----------------|--------|--|
| ERROR:a | 11-13 | When abnormality occurs, the point of contact is turned on. |
| ERROR:b | 12-13 | When abnormality occurs, the point of contact is turned off. |
| OPEN TORQUE:a | 20-22 | When open direction is over torque, the point of contact is turned on. |
| OPEN TORQUE:b | 21-22 | When open direction is over torque, the point of contact is turned off. |
| CLOSE TORQUE:a | 23-25 | When close direction is over torque, the point of contact is turned on. |
| CLOSE TORQUE:b | 24-25 | When close direction is over torque, the point of contact is turned off. |

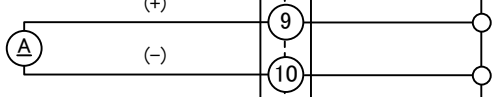
TERMINAL ARRAY



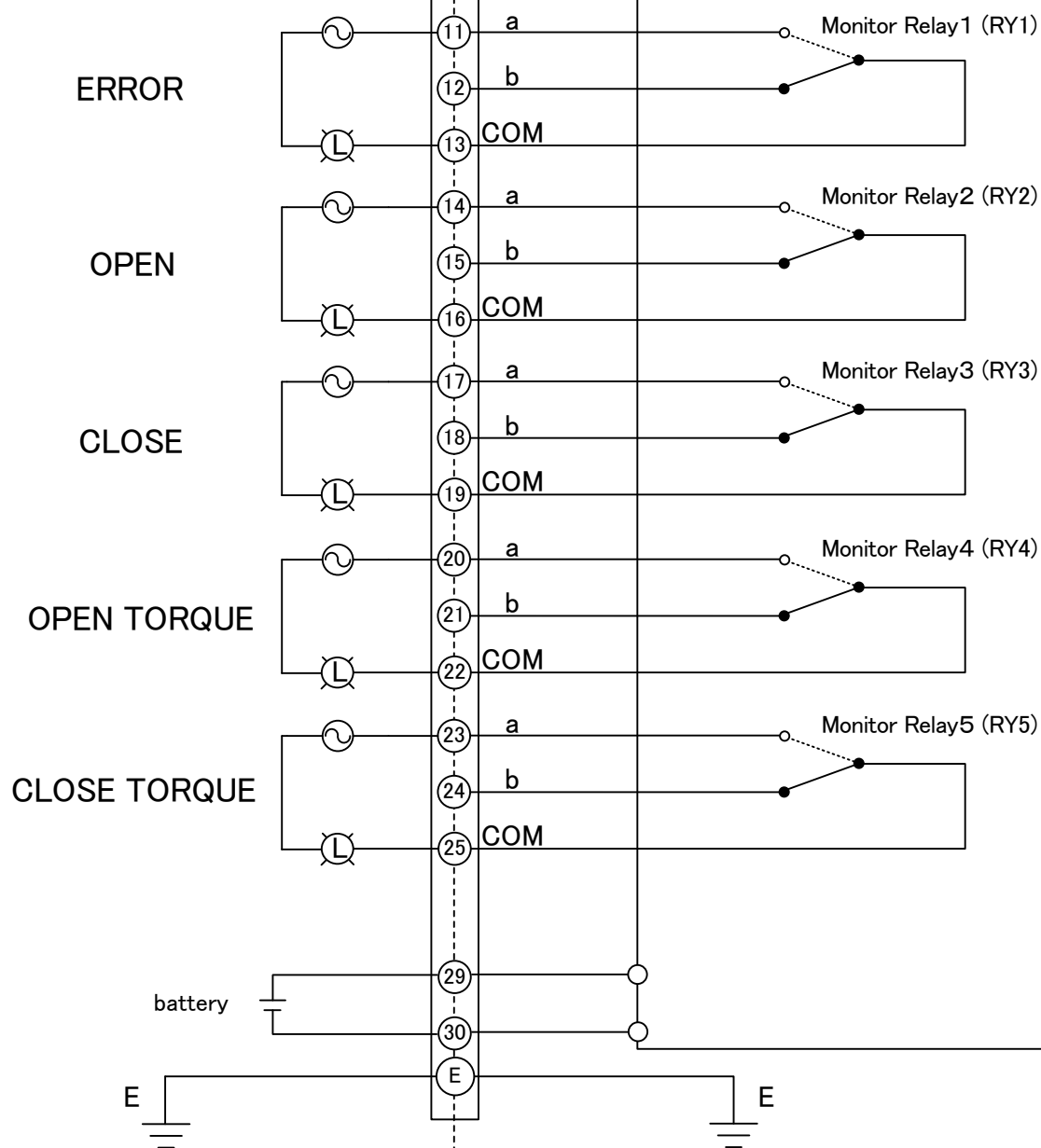
POWER
1 φ 100V/200V
50/60Hz



OUTPUT
4~20mADC



INTELLIGENT UNIT



Relay capacity
AC250V/3A
DC30V/3A

| | | | | | | | |
|-----------------|--------------------------------------|-----------------|-----------------|-----------------|-----------------|--------------------|-----------------|
| REV. | 3M01246 | 図番 | 形式 | TYPE | Semflex-VP | 図名 | TITLE |
| | | | | | | Connecting Diagram | |
| DATE | 19.04.16 | DATE | DATE | DATE | DATE | DATE | DATE |
| SCALE | 1/1 | SCALE | SCALE | SCALE | SCALE | SCALE | SCALE |
| UNIT | mm | UNIT | UNIT | UNIT | UNIT | UNIT | UNIT |
| 3RD. ANG. PROJ. | — | 3RD. ANG. PROJ. | 3RD. ANG. PROJ. | 3RD. ANG. PROJ. | 3RD. ANG. PROJ. | 3RD. ANG. PROJ. | 3RD. ANG. PROJ. |
| 承認 APP. | Masaki,Mori | 承認 APP. | 承認 APP. | 承認 APP. | 承認 APP. | 承認 APP. | 承認 APP. |
| 製図 DWN. | Masaki,Mori | 製図 DWN. | 製図 DWN. | 製図 DWN. | 製図 DWN. | 製図 DWN. | 製図 DWN. |
| 内容 | 西部電機株式会社 | | | | | | 内容 |
| 承認 | SEIBU Electric & Machinery CO., LTD. | | | | | | 承認 |
| 氏名 | | | | | | | 氏名 |
| DATE | | | | | | | DATE |
| REV. | | | | | | | REV. |

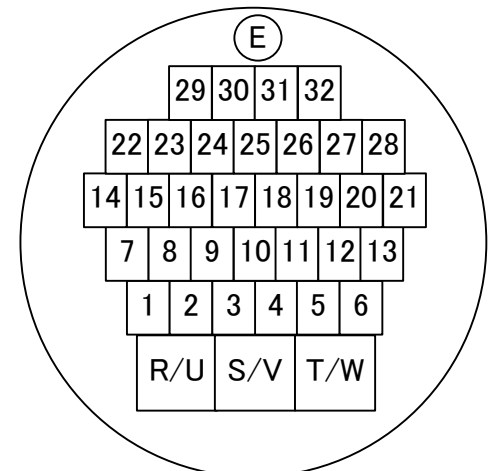
(Reference connection diagram)

| SIGNAL | TM NO. | POSITION | | | |
|---------|--------|----------|-----|-----|------|
| | | CLOSE | HF1 | HF2 | OPEN |
| OPEN:a | 14-16 | --- | --- | --- | --- |
| OPEN:b | 15-16 | --- | --- | --- | --- |
| CLOSE:a | 17-19 | --- | --- | --- | --- |
| CLOSE:b | 18-19 | --- | --- | --- | --- |

— : Contact ON - - - - : Contact OFF

| SEGAL | TM NO. | OPERATION |
|----------------|--------|--|
| ERROR:a | 11-13 | When abnormality occurs, the point of contact is turned on. |
| ERROR:b | 12-13 | When abnormality occurs, the point of contact is turned off. |
| OPEN TORQUE:a | 20-22 | When open direction is over torque, the point of contact is turned on. |
| OPEN TORQUE:b | 21-22 | When open direction is over torque, the point of contact is turned off. |
| CLOSE TORQUE:a | 23-25 | When close direction is over torque, the point of contact is turned on. |
| CLOSE TORQUE:b | 24-25 | When close direction is over torque, the point of contact is turned off. |

TERMINAL ARRAY

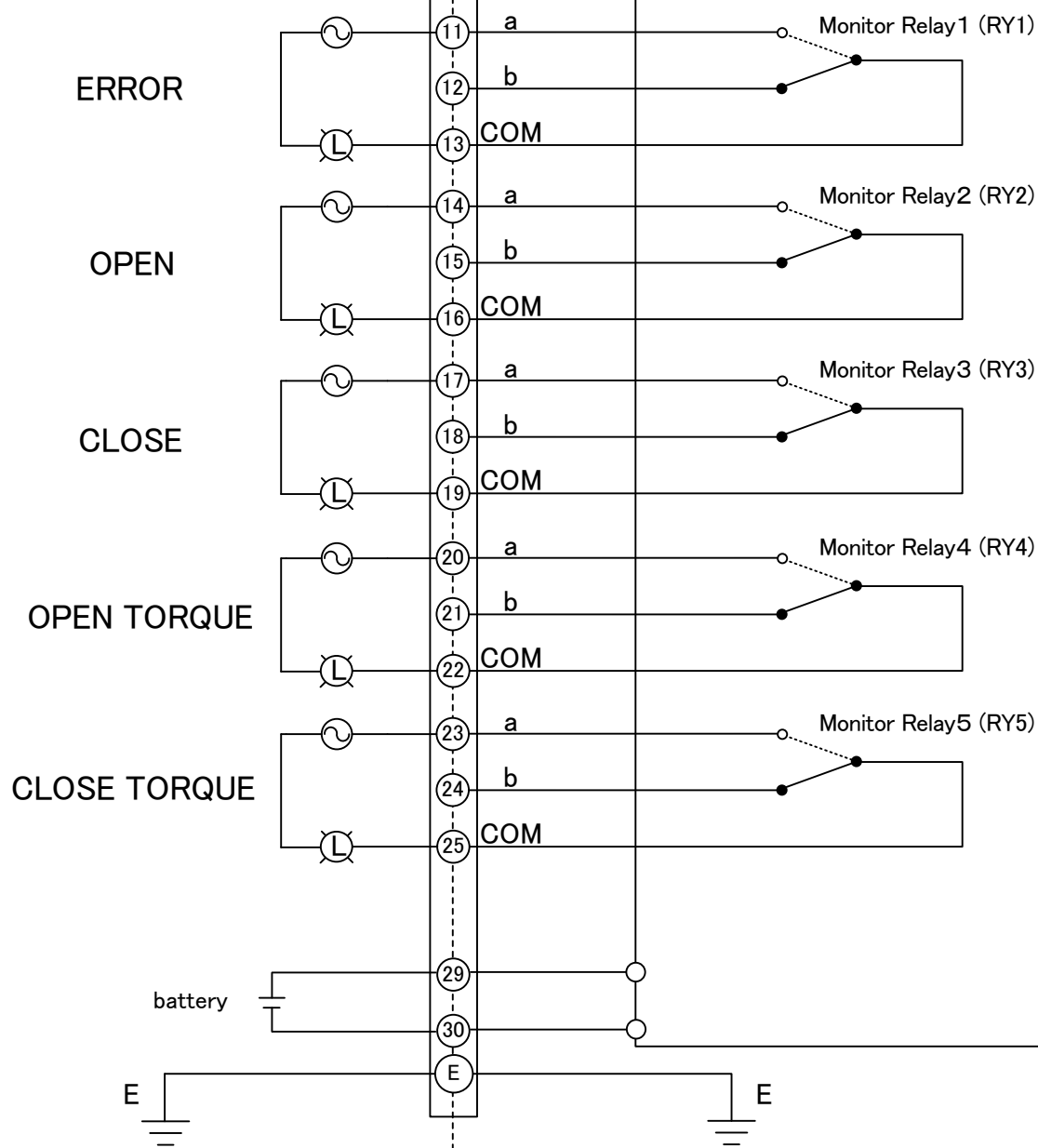


POWER
3φ 200V/400V
50/60Hz

Dry contact
OPEN
CLOSE
STOP/RESET
ESD
COM

OUTPUT
4~20mADC

INTELLIGENT UNIT



Relay capacity
AC250V/3A
DC30V/3A

| | |
|--------------------------------------|--------------------|
| REV. | 3M01247 |
| 図名 | Connecting Diagram |
| 形式 | Semflex-VP |
| 図番 | DWG. NO. 3M01247 |
| 尺度 | SCALE |
| 日付 | DATE '19.04.16 |
| 3RD. ANG. PROJ. | 角法 |
| 照査 | CKD. 照査 |
| 製図 | DWN. 製図 |
| 承認 | APP. 承認 |
| Masakazu,Mori | Masaki,Mori |
| SEIBU Electric & Machinery CO., LTD. | 西部電機株式会社 |
| 内容 | DESCRIPTION |
| 承認 | APP. |
| 氏名 | DWN. |
| 日付 | DATE |
| 改訂 | REV. |

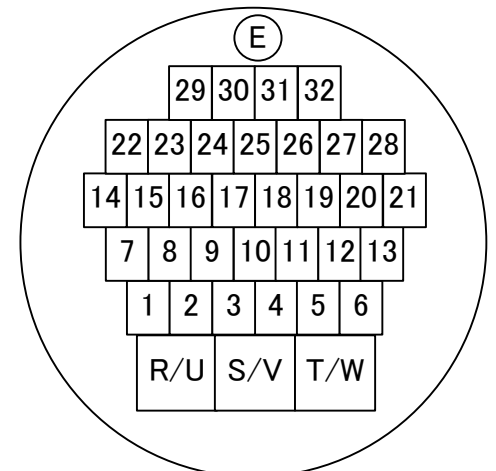
(Reference connection diagram)

| SIGNAL | TM NO. | POSITION | | | |
|---------|--------|----------|-----|-----|------|
| | | CLOSE | HF1 | HF2 | OPEN |
| OPEN:a | 14-16 | --- | --- | --- | --- |
| OPEN:b | 15-16 | --- | --- | --- | --- |
| CLOSE:a | 17-19 | --- | --- | --- | --- |
| CLOSE:b | 18-19 | --- | --- | --- | --- |

— : Contact ON - - - - : Contact OFF

| SEGNAL | TM NO. | OPERATION |
|----------------|--------|--|
| ERROR:a | 11-13 | When abnormality occurs, the point of contact is turned on. |
| ERROR:b | 12-13 | When abnormality occurs, the point of contact is turned off. |
| OPEN TORQUE:a | 20-22 | When open direction is over torque, the point of contact is turned on. |
| OPEN TORQUE:b | 21-22 | When open direction is over torque, the point of contact is turned off. |
| CLOSE TORQUE:a | 23-25 | When close direction is over torque, the point of contact is turned on. |
| CLOSE TORQUE:b | 24-25 | When close direction is over torque, the point of contact is turned off. |

TERMINAL ARRAY



POWER
3 φ 200V/400V
50/60Hz

Dry contact
OPEN
CLOSE
STOP/RESET
ESD
REMOTE
COM

INPUT
4~20mADC
(1~5VDC)

OUTPUT
4~20mADC

ERROR

OPEN

CLOSE

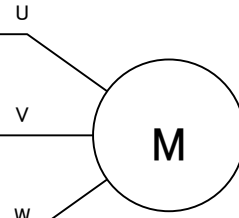
OPEN TORQUE

CLOSE TORQUE

battery

E

INTELLIGENT UNIT



(Reference connection diagram)

Relay capacity
AC250V/3A
DC30V/3A

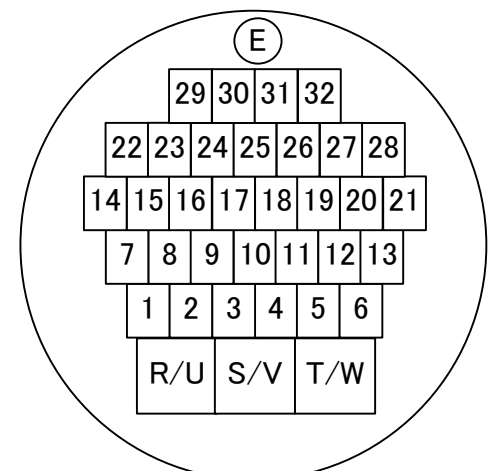
| | |
|-------------|-------------------------------------|
| REV. | ◇ |
| DWG. NO. | 3M01184 |
| FORM TYPE | Semflex-VP |
| TITLE | Connecting Diagram |
| DATE | 18.11.08 |
| SCALE | 1:1 |
| PROJECT | 3RD. ANG. PROJ. |
| DESIGNER | Mori |
| CHECKER | — |
| APPROVED | Maruyama |
| COMPANY | 西部電機株式会社 |
| DESCRIPTION | SEBU Electric & Machinery CO., LTD. |

| SIGNAL | TM NO. | POSITION | | | |
|---------|--------|----------|-----|-----|------|
| | | CLOSE | HF1 | HF2 | OPEN |
| OPEN:a | 14-16 | --- | --- | --- | --- |
| OPEN:b | 15-16 | --- | --- | --- | --- |
| CLOSE:a | 17-19 | --- | --- | --- | --- |
| CLOSE:b | 18-19 | --- | --- | --- | --- |

— : Contact ON - - - - : Contact OFF

| SEGNA | TM NO. | OPERATION |
|----------------|--------|--|
| ERROR:a | 11-13 | When abnormality occurs, the point of contact is turned on. |
| ERROR:b | 12-13 | When abnormality occurs, the point of contact is turned off. |
| OPEN TORQUE:a | 20-22 | When open direction is over torque, the point of contact is turned on. |
| OPEN TORQUE:b | 21-22 | When open direction is over torque, the point of contact is turned off. |
| CLOSE TORQUE:a | 23-25 | When close direction is over torque, the point of contact is turned on. |
| CLOSE TORQUE:b | 24-25 | When close direction is over torque, the point of contact is turned off. |

TERMINAL ARRAY



POWER
3φ 200V/400V
50/60Hz

Dry contact
OPEN
CLOSE
STOP/RESET
ESD
REMOTE
COM

INPUT
4~20mADC
(1~5VDC)

OUTPUT
4~20mADC

ERROR

OPEN

CLOSE

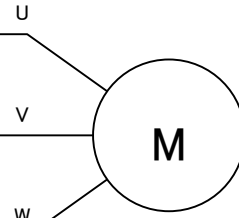
OPEN TORQUE

CLOSE TORQUE

battery

E

INTELLIGENT UNIT



Relay capacity
AC250V/3A
DC30V/3A

| | |
|-----------------|-------------------------------------|
| REV. | 1 |
| 圖名 | Connecting Diagram |
| 形式 | Semflex-VP |
| 圖番 | 3M01097 |
| 單位 | mm |
| 尺度 | SCALE |
| 3RD. ANG. PROJ. | 第三角法 |
| 承認 APP. | Mori |
| 照査 CKD. | — |
| 製圖 DWN. | Kawamoto |
| 日付 | '17.12.25 |
| DATE | |
| 承認 | Mori |
| 氏名 | Manuyama |
| DATE | '18.2.9 |
| 改訂 | 1 |
| DESCRIPTION | 内容 |
| DESCRIPTION | Fixed Dry contact |
| DESCRIPTION | SEBU Electric & Machinery CO., LTD. |

(Reference connection diagram)

| SIGNAL | TM NO. | POSITION | | | |
|---------|--------|----------|-----|-----|------|
| | | CLOSE | HF1 | HF2 | OPEN |
| OPEN:a | 14-16 | --- | --- | --- | --- |
| OPEN:b | 15-16 | --- | --- | --- | --- |
| CLOSE:a | 17-19 | --- | --- | --- | --- |
| CLOSE:b | 18-19 | --- | --- | --- | --- |

— : Contact ON - - - - : Contact OFF

| SEGAL | TM NO. | OPERATION |
|----------------|--------|--|
| ERROR:a | 11-13 | When abnormality occurs, the point of contact is turned on. |
| ERROR:b | 12-13 | When abnormality occurs, the point of contact is turned off. |
| OPEN TORQUE:a | 20-22 | When open direction is over torque, the point of contact is turned on. |
| OPEN TORQUE:b | 21-22 | When open direction is over torque, the point of contact is turned off. |
| CLOSE TORQUE:a | 23-25 | When close direction is over torque, the point of contact is turned on. |
| CLOSE TORQUE:b | 24-25 | When close direction is over torque, the point of contact is turned off. |

TERMINAL ARRAY

