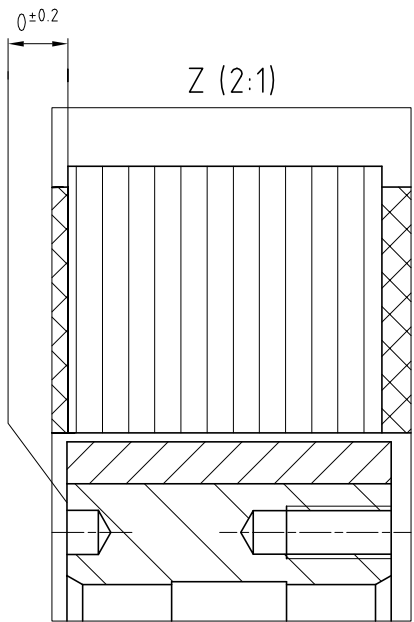
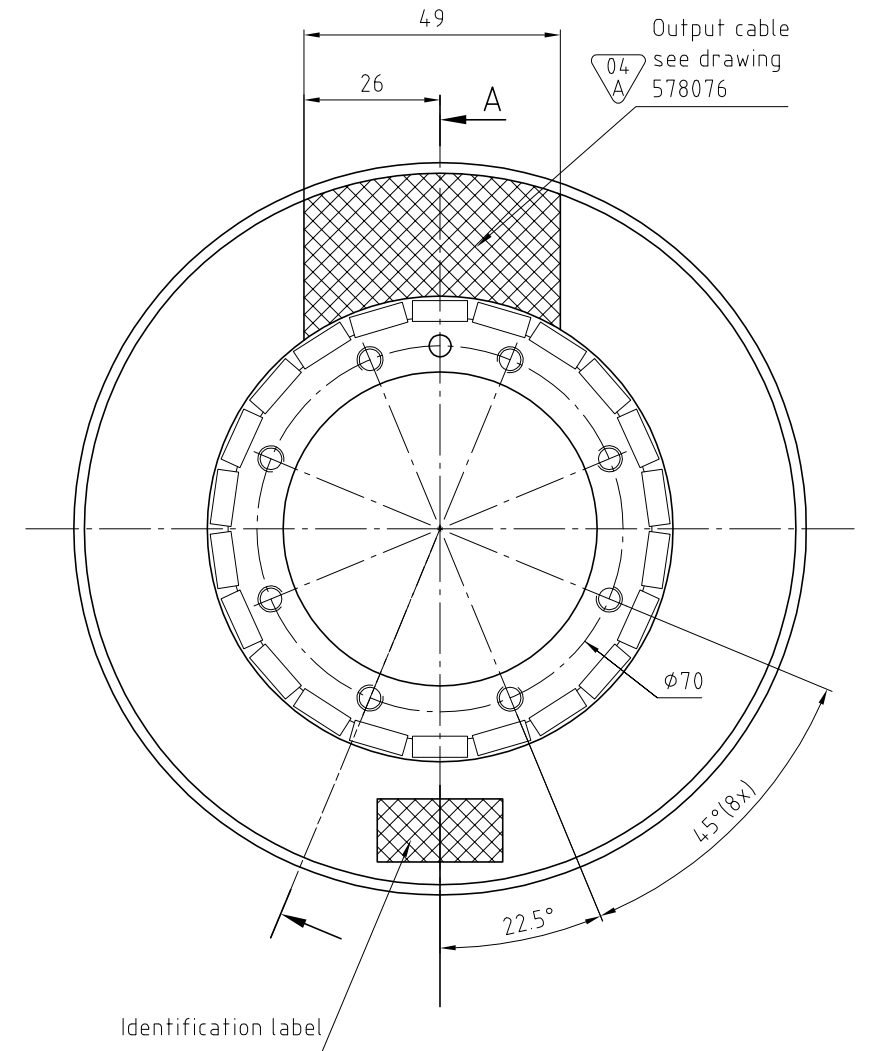
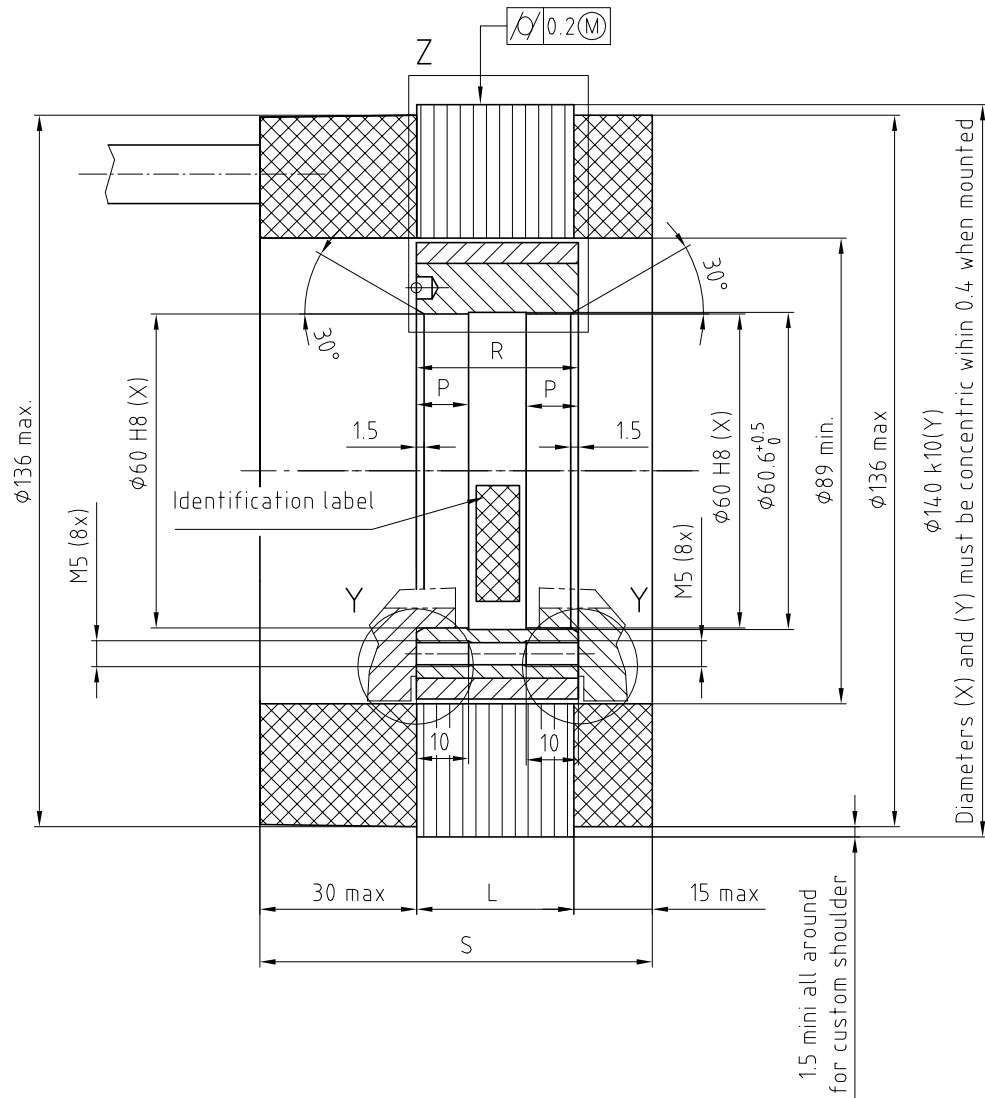
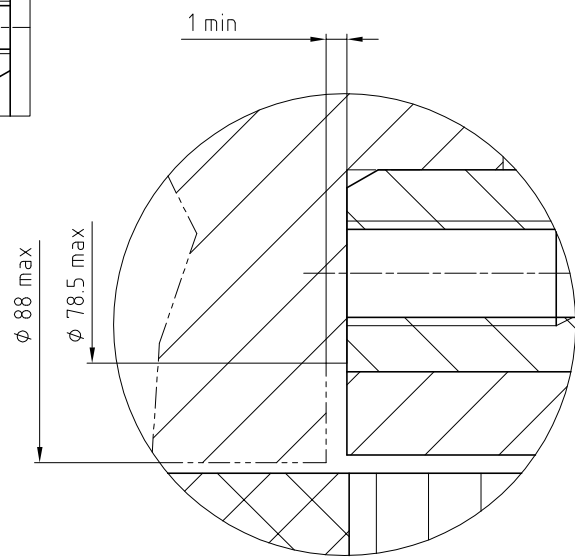


Mounting condition



Detail: Y  
Magnets safety clearance

Y (4:1)

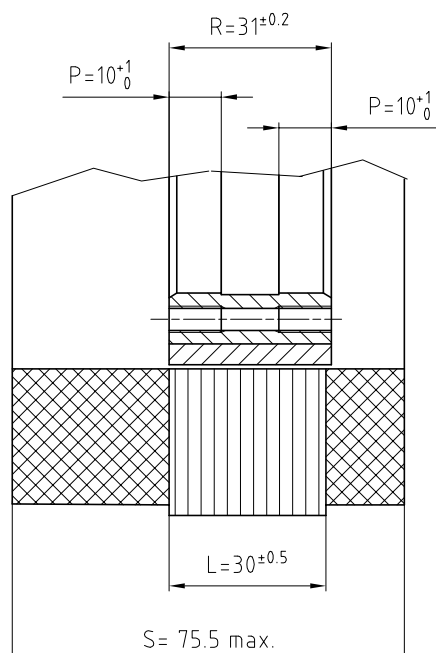


Power cable connection

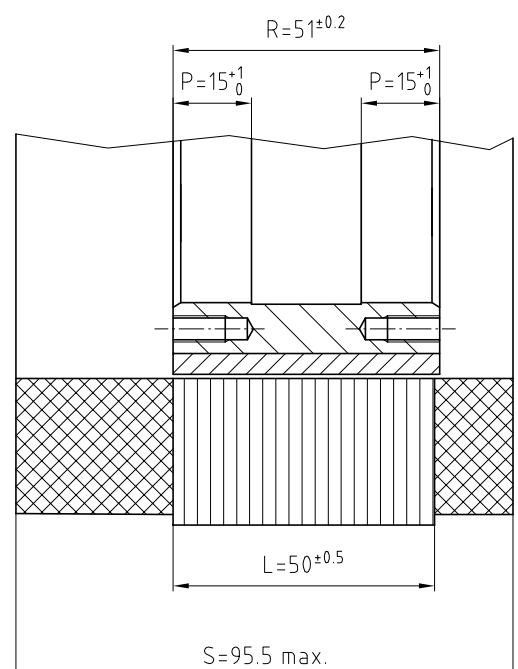
- Phase 1 = Wire 1
- Phase 2 = Wire 2
- Phase 3 = Wire 3
- Ground = Wire yellow-Green
- Neutral = Wire 5 or Br1 or White
- Not connected = Wire 6 or Br2 or Black

For temperature sensor configuration, see Handbook

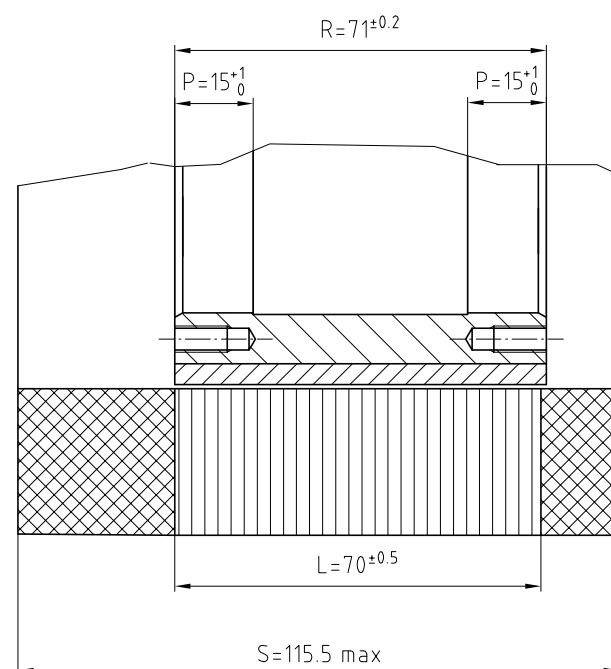
Tmm0140-030



Tmm0140-050

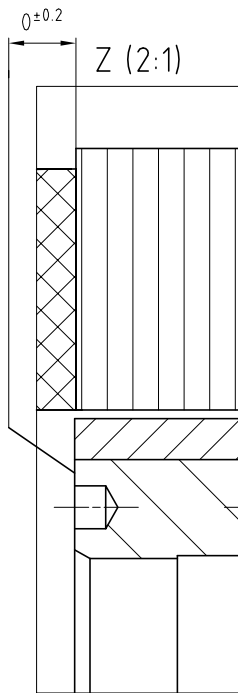


Tmm0140-070

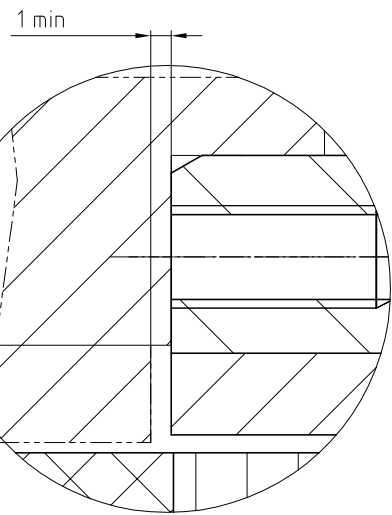


|                                           |        |     |            |             |                                                                                    |  |              |  |                 |            |            |              |                    |            |                      |  |                           |  |
|-------------------------------------------|--------|-----|------------|-------------|------------------------------------------------------------------------------------|--|--------------|--|-----------------|------------|------------|--------------|--------------------|------------|----------------------|--|---------------------------|--|
| 04<br>A                                   | ECO N° | Nom | Date       | Description |                                                                                    |  |              |  |                 |            |            |              |                    |            |                      |  |                           |  |
|                                           | C29035 | MBO | 22.10.2012 | -           |                                                                                    |  |              |  |                 |            |            |              |                    |            |                      |  |                           |  |
| Matière:                                  |        |     |            |             | Principe de tolérancement de base ISO 8015 et tolérance générale selon ISO 2768-mK |  |              |  |                 |            |            |              |                    |            | Equivalence rugosité |  |                           |  |
| Remarque:                                 |        |     |            |             | Dimension nominale                                                                 |  | Linéaire     |  | Rayon Chanfrein |            | Lks        |              | Dimension nominale |            | Ra μm                |  | Classe                    |  |
| Annexe:                                   |        |     |            |             | 0,5 ... 3                                                                          |  | ±0,1         |  | ±0,2            |            | Lks        |              | > 10 ... 30        |            | 0,05                 |  | 0,4                       |  |
|                                           |        |     |            |             | > 3 ... 6                                                                          |  | ±0,1         |  | ±0,5            |            | Lks        |              | > 30 ... 100       |            | 0,1                  |  | 0,4                       |  |
|                                           |        |     |            |             | > 6 ... 30                                                                         |  | ±0,2         |  | ±1              |            | Lks        |              | > 100 ... 300      |            | 0,2                  |  | 0,4                       |  |
|                                           |        |     |            |             | > 30 ... 120                                                                       |  | ±0,3         |  | ±2              |            | Lks        |              | > 300 ... 1000     |            | 0,4                  |  | 0,6                       |  |
|                                           |        |     |            |             | > 120 ... 400                                                                      |  | ±0,5         |  | ±4              |            | Lks        |              | > 1000 ... 3000    |            | 0,6                  |  | 0,8                       |  |
|                                           |        |     |            |             | > 400 ... 1000                                                                     |  | ±0,8         |  |                 |            | Lks        |              |                    |            | 0,8                  |  | 0,8                       |  |
|                                           |        |     |            |             | > 1000 ... 2000                                                                    |  | ±1,2         |  |                 |            | Lks        |              |                    |            | 1                    |  | 1                         |  |
| Arêtes de formes ISO 13715                |        |     |            |             | Torque motor                                                                       |  |              |  |                 | Auteur     |            | Vérificateur |                    | Libérateur |                      |  |                           |  |
| Interface drawing Tmm0140-030 / 050 / 070 |        |     |            |             |                                                                                    |  |              |  |                 | M. Tabasso |            |              |                    |            |                      |  |                           |  |
|                                           |        |     |            |             |                                                                                    |  |              |  |                 | 06.10.2005 |            |              |                    |            |                      |  |                           |  |
| φ140                                      |        |     |            |             | k10                                                                                |  | -0.16 / 14.0 |  |                 |            | Projection |              | Format             |            | Echelle              |  | Ancien n° : 0501m-i40-02d |  |
| φ60                                       |        |     |            |             | H8                                                                                 |  | +0.046 / 60  |  |                 |            | A2         |              | 1:1                |            | 577551 - 04 - A-01   |  | 1/1                       |  |
| Cofe                                      |        |     |            |             | A ajustement                                                                       |  |              |  |                 |            |            |              |                    |            |                      |  |                           |  |

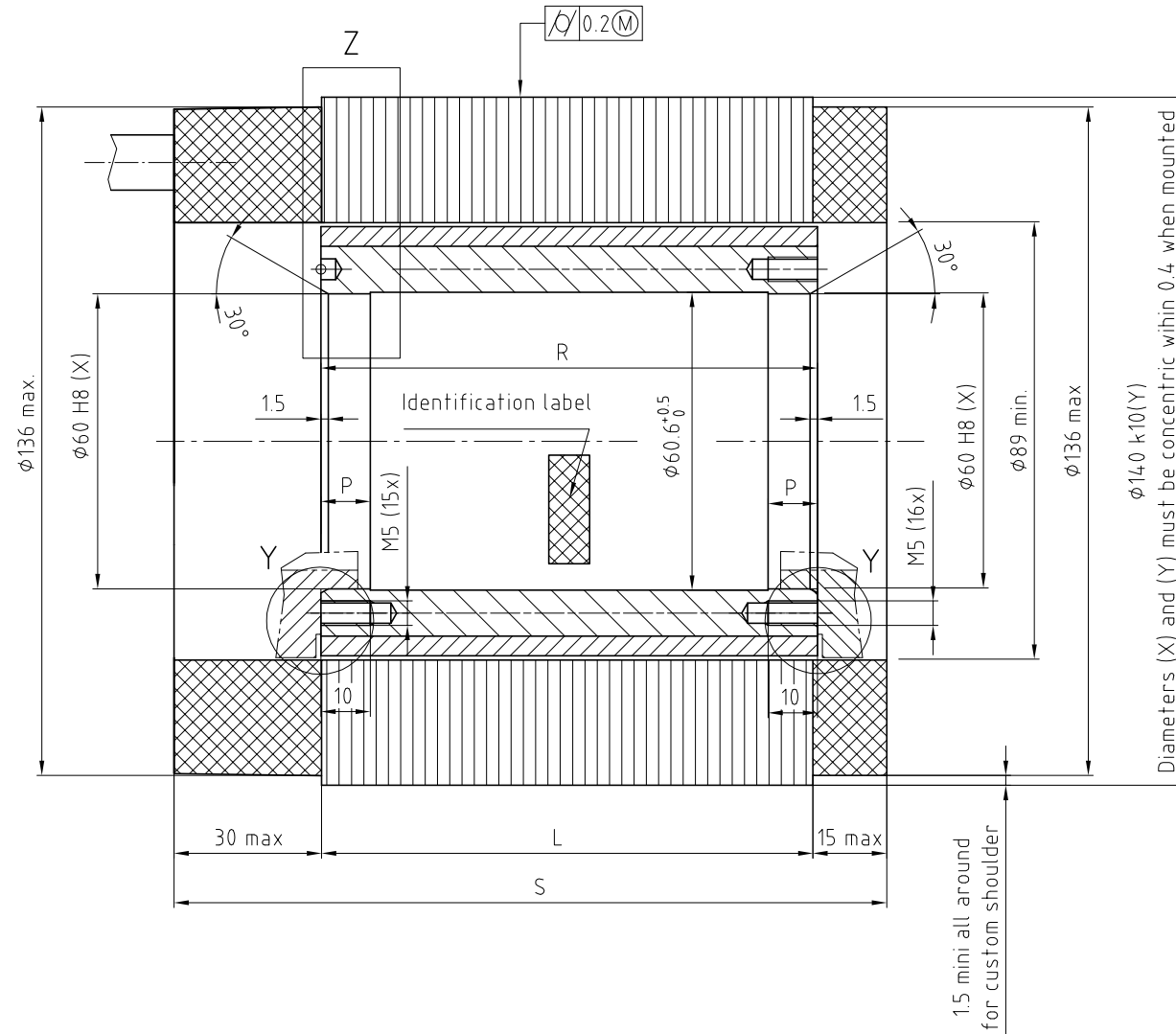
Mounting condition



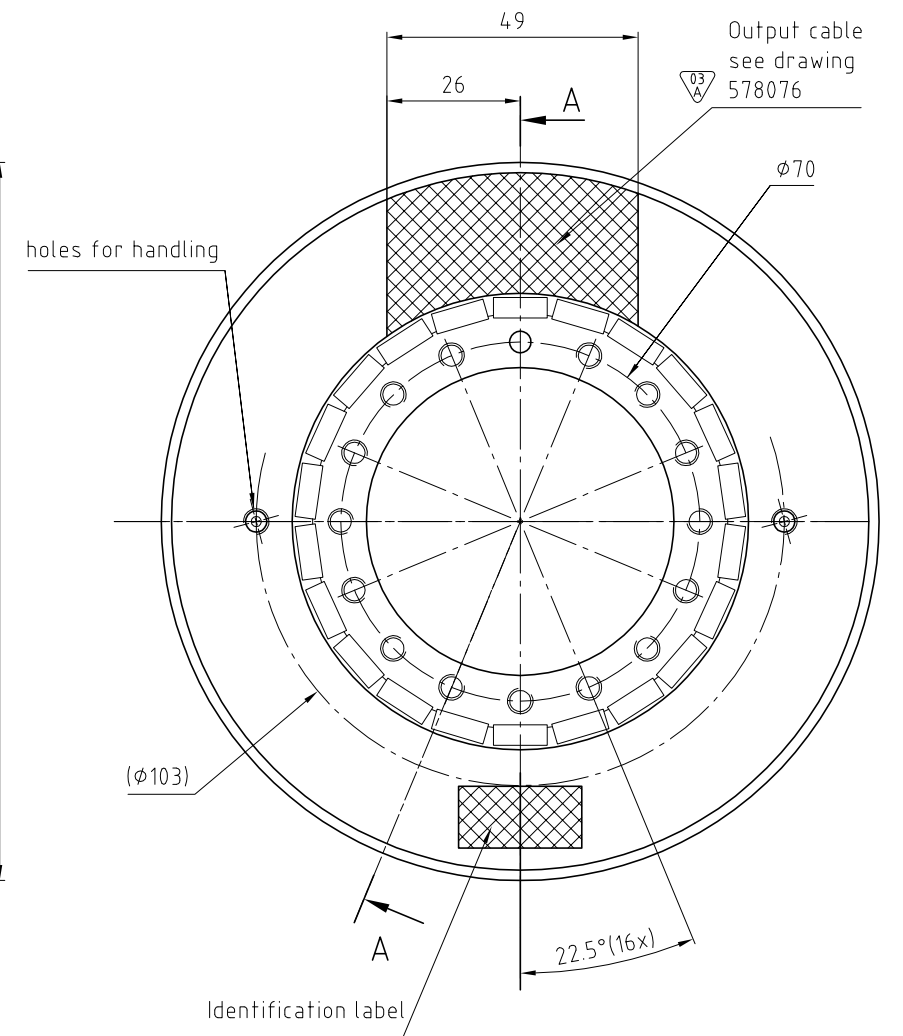
Detail:Y  
Magnets safety clearance  
Y (4:1)



A-A



|            |            |              |          |
|------------|------------|--------------|----------|
| $\phi 140$ | k10        | $0^{+0.16}$  | $140.16$ |
| $\phi 60$  | H8         | $0^{-0.046}$ | $60.046$ |
| Cote       | Ajustement |              |          |

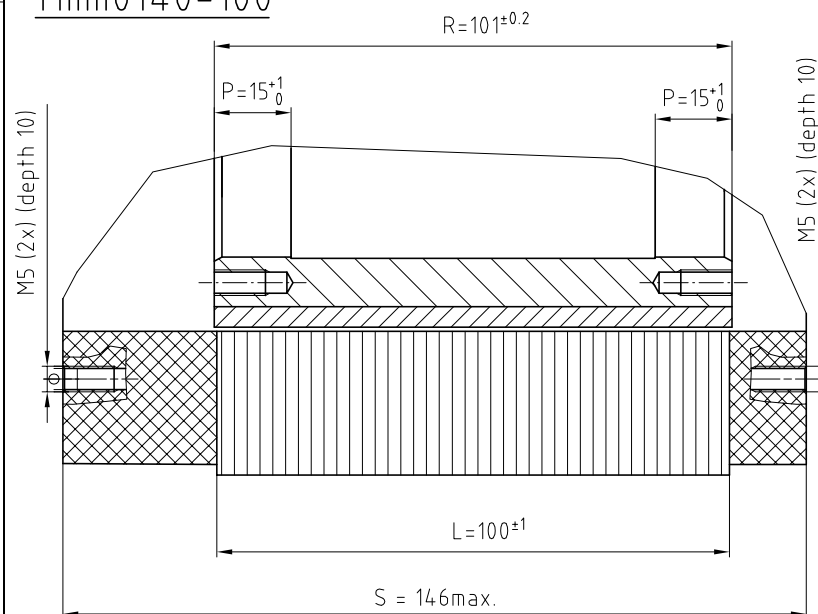


Power cable connection

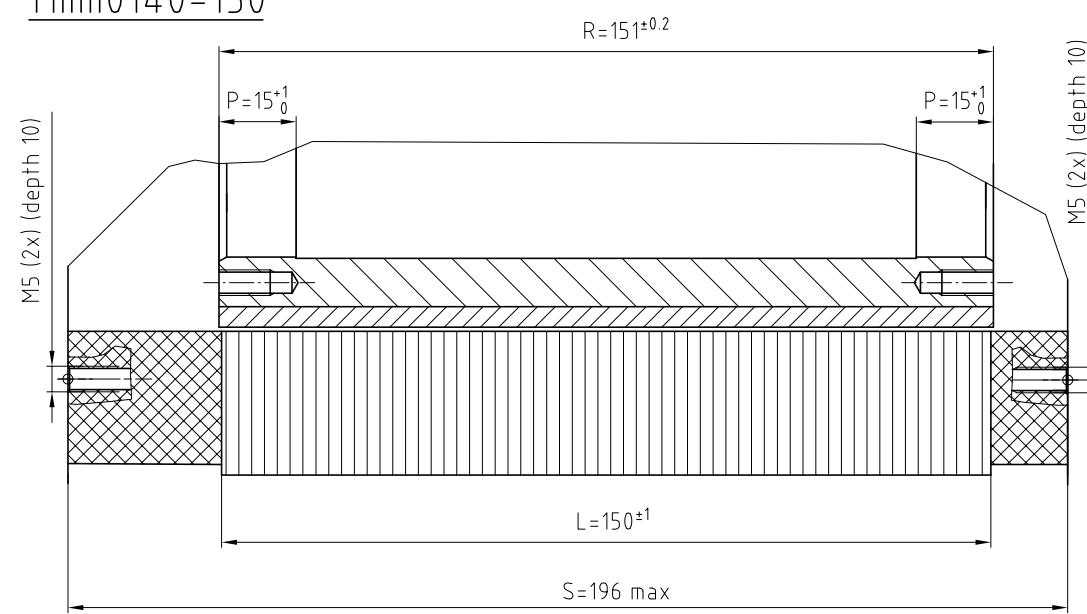
- Phase 1 = Wire 1
- Phase 2 = Wire 2
- Phase 3 = Wire 3
- Ground = Wire yellow-Green
- Neutral = Wire 5 or Br1 or White
- Not connected = Wire 6 or Br2 or Black

For temperature sensor configuration, see Handbook

Tmm0140-100

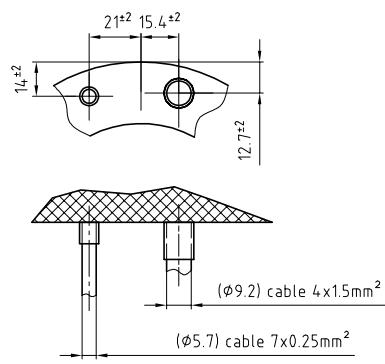


Tmm0140-150

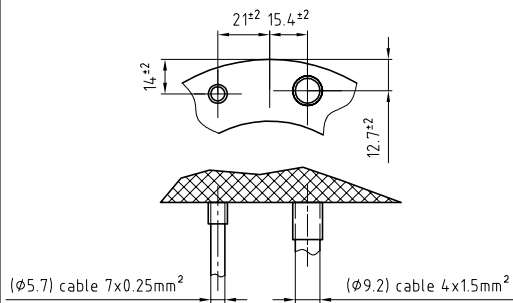


|                                     |            |                    |                                                                                    |           |           |           |                      |                  |                           |            |
|-------------------------------------|------------|--------------------|------------------------------------------------------------------------------------|-----------|-----------|-----------|----------------------|------------------|---------------------------|------------|
| ECO N°<br>C29035                    | Nom<br>MBO | Date<br>18.10.2012 | Description :                                                                      |           |           |           |                      |                  |                           |            |
|                                     |            |                    | -                                                                                  |           |           |           |                      |                  |                           |            |
| Matière :                           |            |                    | Principe de tolérancement de base ISO 8015 et tolérance générale selon ISO 2768-mK |           |           |           | Equivalence rugosité |                  |                           |            |
| Remarque :                          |            |                    | Dimension nominale                                                                 | Linéaire  | Rayon     | Chanfrein | Dimension nominale   | Ra $\mu\text{m}$ | Classe                    |            |
| Annexe :                            |            |                    | 0.5 ... 3                                                                          | $\pm 0.1$ | $\pm 0.2$ |           | ... 10               | 0.05             | 0.4                       |            |
|                                     |            |                    | > 3 ... 6                                                                          | $\pm 0.1$ | $\pm 0.5$ |           | > 10 ... 30          | 0.1              | 0.4                       |            |
|                                     |            |                    | > 6 ... 30                                                                         | $\pm 0.2$ | $\pm 1$   |           | > 30 ... 100         | 0.2              | 0.4                       |            |
|                                     |            |                    | > 30 ... 120                                                                       | $\pm 0.3$ | $\pm 2$   |           | > 100 ... 300        | 0.4              | 0.6                       |            |
|                                     |            |                    | > 120 ... 400                                                                      | $\pm 0.5$ | $\pm 4$   |           | > 300 ... 1000       | 0.6              | 0.8                       |            |
|                                     |            |                    | > 400 ... 1000                                                                     | $\pm 0.8$ |           |           | > 1000 ... 3000      | 0.8              | 1                         |            |
|                                     |            |                    | > 1000 ... 2000                                                                    | $\pm 1.2$ |           |           |                      |                  |                           |            |
| Arêtes de formes ISO 13715          |            |                    | Torque motor                                                                       |           |           |           | Auteur               |                  | Vérificateur              | Libérateur |
| -0.3                                |            |                    |                                                                                    |           |           |           | S. Perrot            |                  |                           |            |
| +0.3                                |            |                    |                                                                                    |           |           |           | 07.04.2006           |                  |                           |            |
| Interface drawing Tmm0140-100 / 150 |            |                    | Projection                                                                         |           |           |           | Format               |                  | Echelle                   |            |
|                                     |            |                    | A2                                                                                 |           |           |           | 1:1                  |                  | Ancien n° : 0501m-140-03c |            |
|                                     |            |                    |                                                                                    |           |           |           | Version              |                  | Revision                  |            |
|                                     |            |                    |                                                                                    |           |           |           | 587818               |                  | - 03- A-01                |            |
|                                     |            |                    |                                                                                    |           |           |           | 1/1                  |                  | Numero de document        |            |

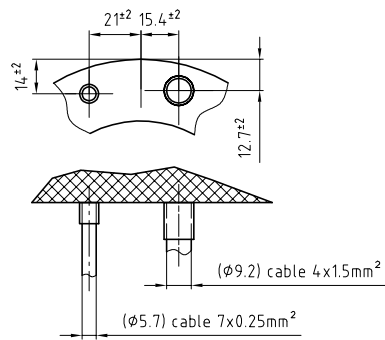
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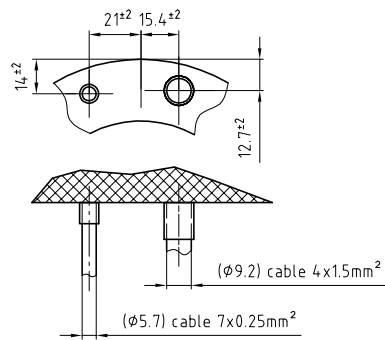
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TMM0140-030-3TBS-S##



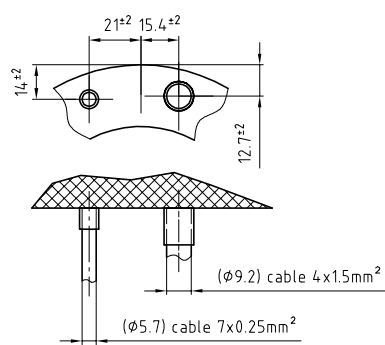
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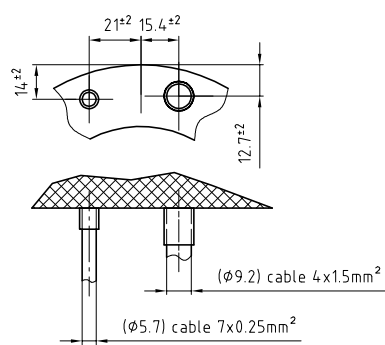
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TMM0140-050-3TBS-S##



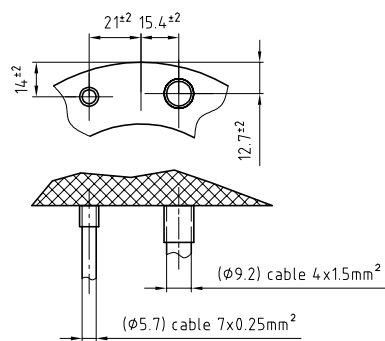
TMM0140-070-3RBS-S##



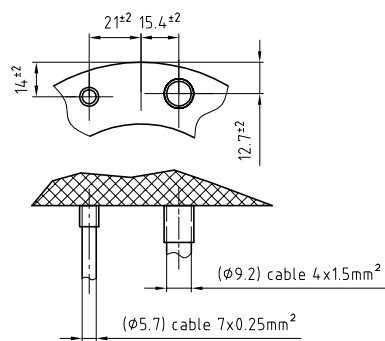
TMM0140-070-3UBS-S##



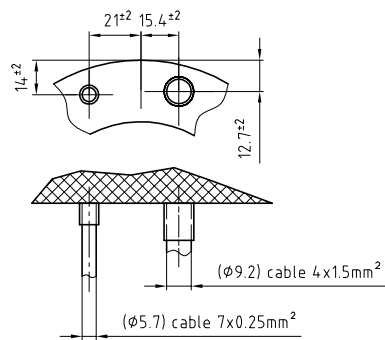
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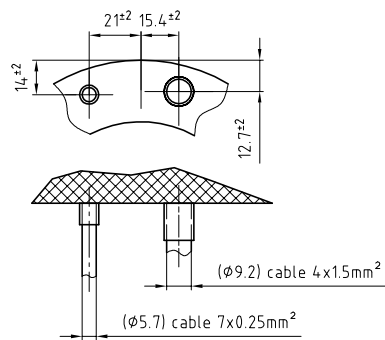
TMM0140-100-3UBS-S##



TMM0140-150-3RBS-S##

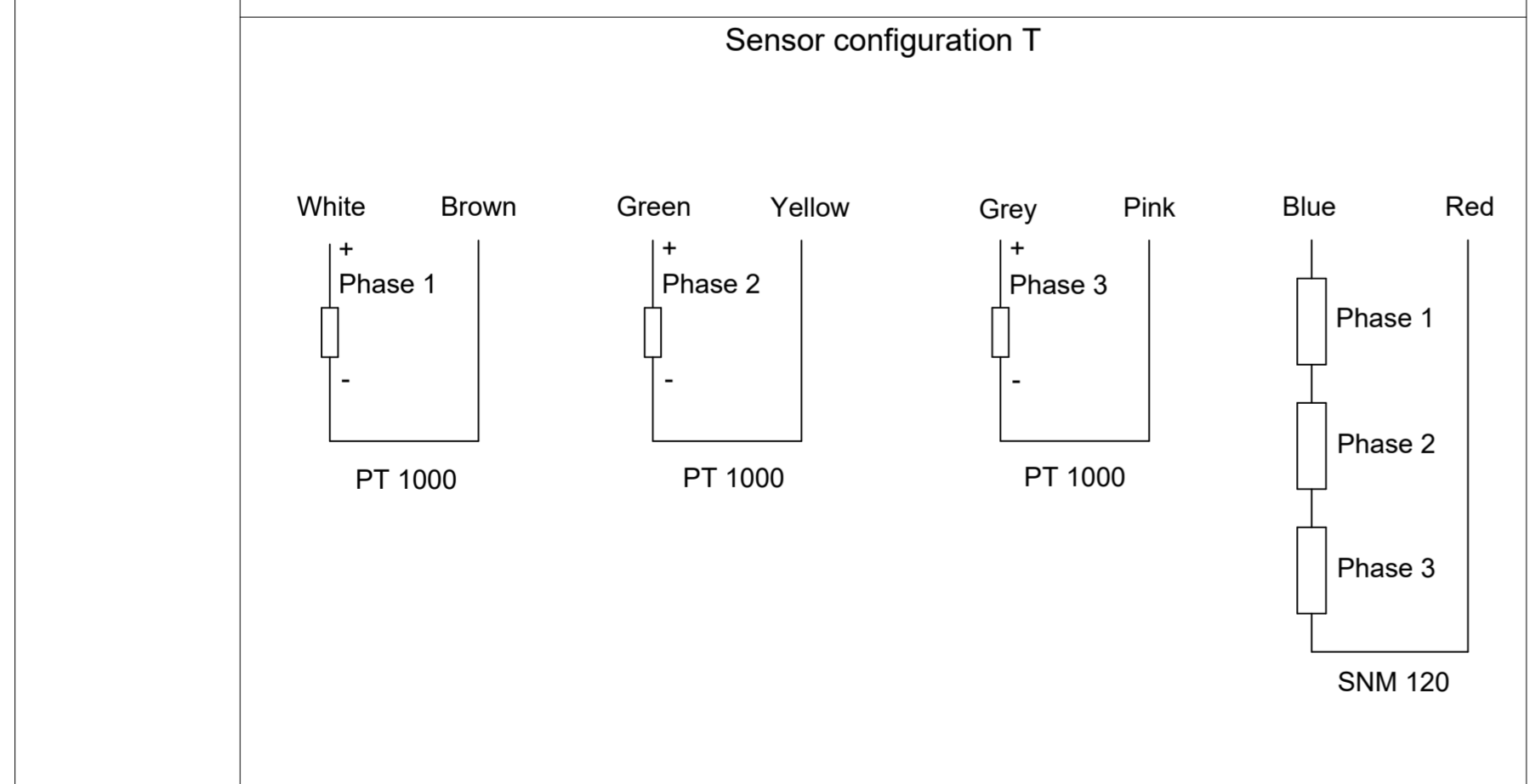
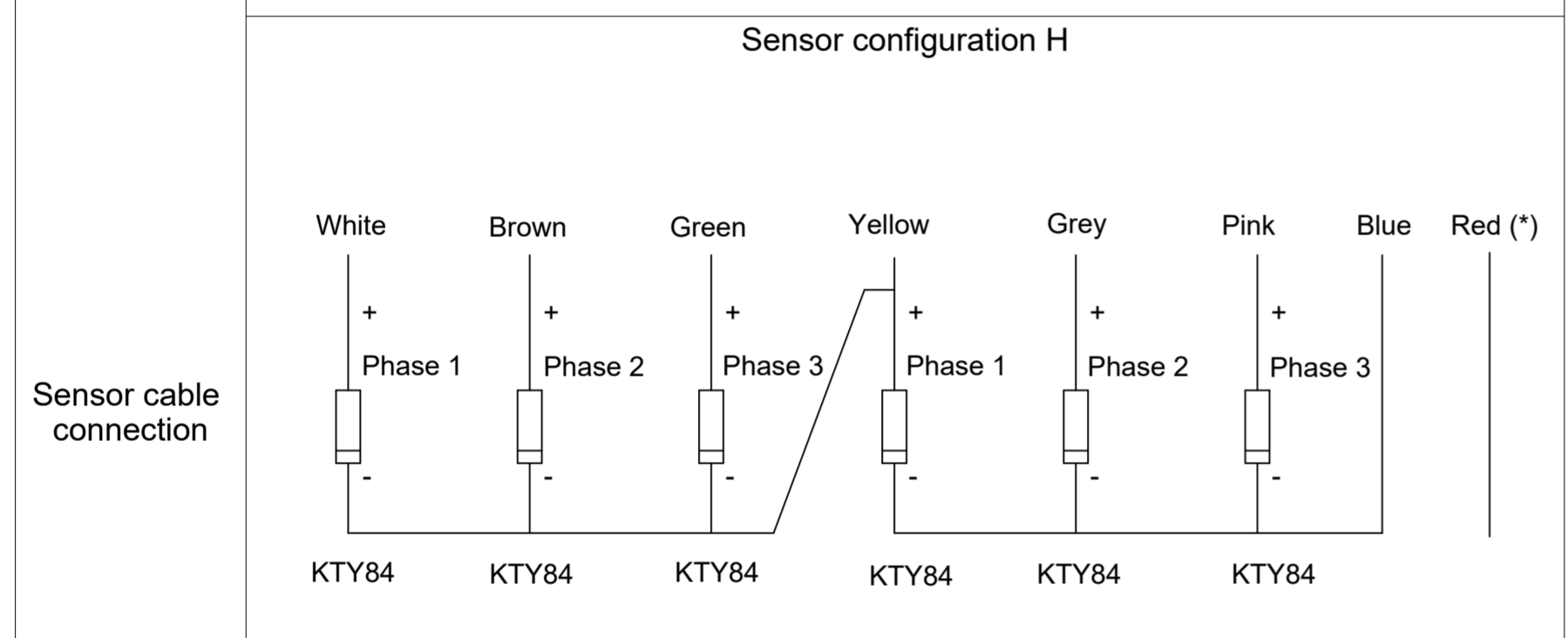
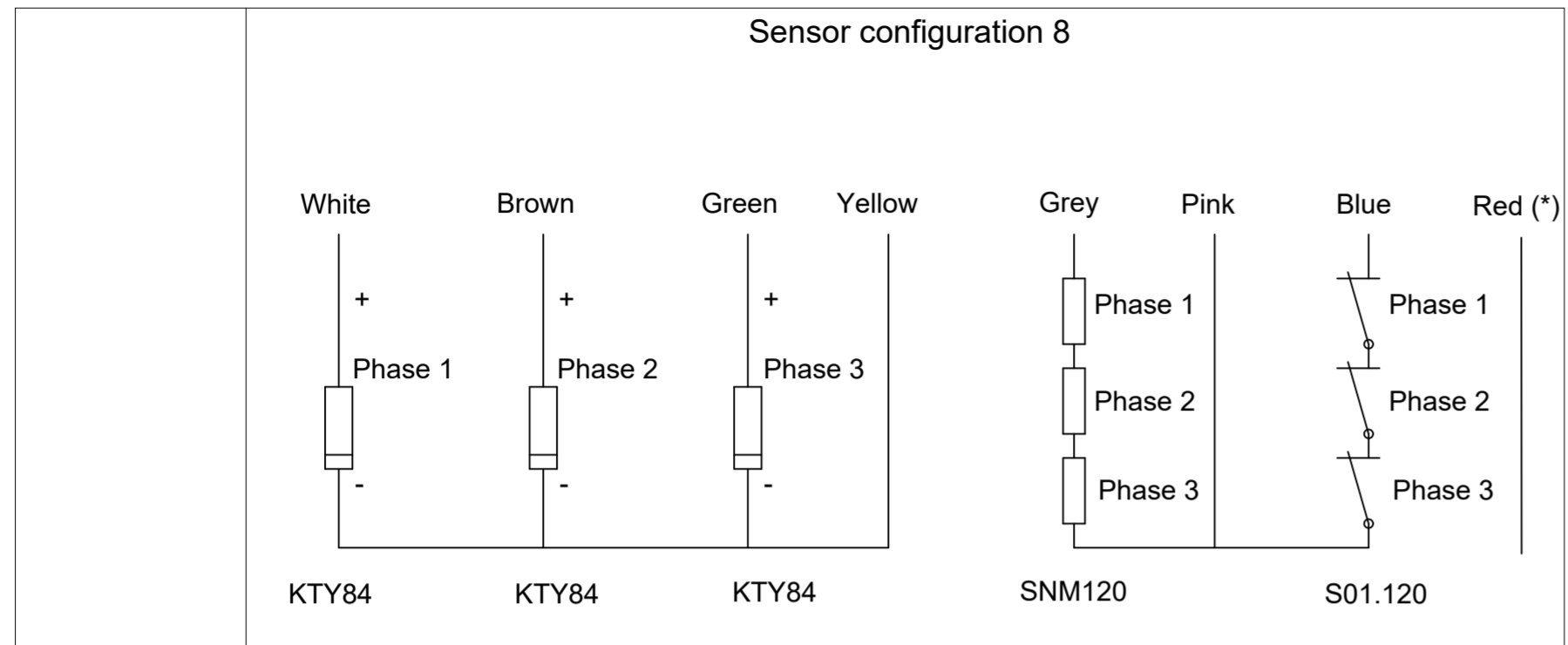


TMM0140-150-3UBS-S##



06  
A

|                                             |                      |                                                                                                                                                                                             |                    |                                             |              |
|---------------------------------------------|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------------------------------------|--------------|
| 06                                          | FSM N°<br>C064.986-5 | Nom<br>JGU                                                                                                                                                                                  | Date<br>02.10.2017 | Description<br>Elbowed output cable removed |              |
| Matière: -                                  |                      |                                                                                                                                                                                             |                    | Equivalence rugosité                        |              |
| Remarque: -                                 |                      |                                                                                                                                                                                             |                    | Ra µm   Classe                              |              |
| Annexe: -                                   |                      |                                                                                                                                                                                             |                    | 50 N12                                      |              |
|                                             |                      |                                                                                                                                                                                             |                    | 25 N11                                      |              |
|                                             |                      |                                                                                                                                                                                             |                    | 12.5 N10                                    |              |
|                                             |                      |                                                                                                                                                                                             |                    | 6.3 N9                                      |              |
|                                             |                      |                                                                                                                                                                                             |                    | 3.2 N8                                      |              |
|                                             |                      |                                                                                                                                                                                             |                    | 1.6 N7                                      |              |
|                                             |                      |                                                                                                                                                                                             |                    | 0.8 N6                                      |              |
|                                             |                      |                                                                                                                                                                                             |                    | 0.4 N5                                      |              |
|                                             |                      |                                                                                                                                                                                             |                    | 0.2 N4                                      |              |
|                                             |                      |                                                                                                                                                                                             |                    | 0.1 N3                                      |              |
|                                             |                      |                                                                                                                                                                                             |                    | 0.05 N2                                     |              |
|                                             |                      |                                                                                                                                                                                             |                    | 0.025 N1                                    |              |
| Arêtes de formes ISO 13715<br>-0.3   +0.3   |                      | Torque motor TMM0140 cables outputs                                                                                                                                                         |                    | Auteur                                      | Vérificateur |
|                                             |                      | Moteur coupleur fer TMM0140 sorties de câbles                                                                                                                                               |                    | M. Tabasso                                  | -            |
|                                             |                      |                                                                                                                                                                                             |                    | 06.10.2005                                  | -            |
|                                             |                      |                                                                                                                                                                                             |                    | Libérateur                                  | -            |
|                                             |                      |                                                                                                                                                                                             |                    |                                             |              |
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|                                             |                      |                                                                                                                                                                                             |                    | A1                                          |              |
|                                             |                      |                                                                                                                                                                                             |                    | Echelle                                     |              |
|                                             |                      |                                                                                                                                                                                             |                    | Ancien n°: 050Tm-140-01                     | Version      |
|                                             |                      |                                                                                                                                                                                             |                    | 578076                                      | -06-A-01     |
|                                             |                      |                                                                                                                                                                                             |                    | Revision                                    | Feuille      |
|                                             |                      |                                                                                                                                                                                             |                    |                                             | 1/1          |
|                                             |                      |                                                                                                                                                                                             |                    | Page                                        |              |



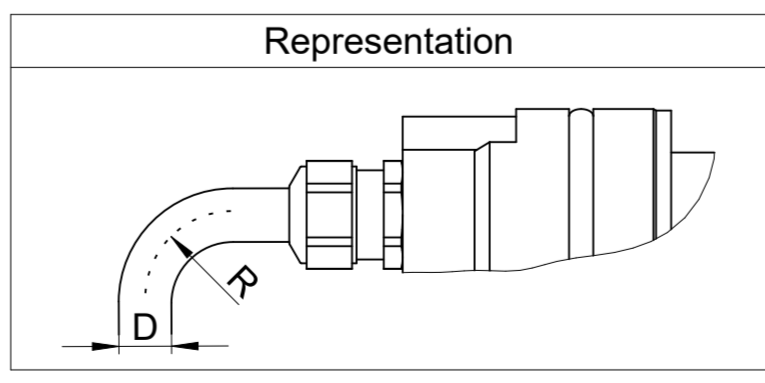
### Power cable connection

| Color and wire number                                       | Function                                              | Drawing |
|-------------------------------------------------------------|-------------------------------------------------------|---------|
| Black wire with number 1 or U                               | Phase 1 (PH1)                                         |         |
| Black wire with number 2 or V                               | Phase 2 (PH2)                                         |         |
| Black wire with number 3 or W                               | Phase 3 (PH3)                                         |         |
| Yellow and green wire                                       | Ground (GND)                                          |         |
| Black wire with number Br1 or 5 or white cable              | Neutral point wire (present only on some motor types) |         |
| Black wire with number Br2 or 6 or black wire without label | None(**)                                              |         |

(\*\*): This wire is automatically present when the neutral point wire (which is an option) is added in the motor as it is a 2 x 1.5 mm<sup>2</sup> cable.

### Wire section (mm<sup>2</sup>)

| Characteristics                      | 4 x 1.5                                      | 4 x 1.5 + 2 x 1.5                            | 4 x 2.5      | 4 x 2.5 + 2 x 1.5 | 4 x 4                | 4 x 4 + 2 x 1.5      | 4 x 10       | 4 x 10 + 2 x 1.5 | Sensor cable  |
|--------------------------------------|----------------------------------------------|----------------------------------------------|--------------|-------------------|----------------------|----------------------|--------------|------------------|---------------|
| Applicable motors: TMM / TML         | 0140<br>0175<br>0210<br>0291<br>0360<br>0450 | 0175<br>0210<br>0291<br>0360<br>0450<br>0530 | 0291<br>0360 | 0360<br>0530      | 0360<br>0450<br>0530 | 0360<br>0450<br>0530 | 0450<br>0530 | 0530             | All TMM / TML |
| Minimum bend radius for fixed cable  | R = 4 X D                                    | R = 5 X D                                    | R = 4 X D    | R = 5 X D         | R = 4 X D            | R = 4 X D            | R = 4 X D    | R = 4 X D        | R = 6 X D     |
| Minimum bend radius for moving cable | R = 7.5 X D                                  | R = 7.5 X D                                  | R = 7.5 X D  | R = 7.5 X D       | R = 7.5 X D          | R = 7.5 X D          | R = 7.5 X D  | R = 7.5 X D      | R = 12 X D    |



(\*): Red wire (if present) is not connected on the motor side and cutted flush on cable extremity.

|                                                                                                                                                                                                                                                                                                                               |  |                                                       |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------|--|
| Text:                                                                                                                                                                                                                                                                                                                         |  | ID number:                                            |  |
| Original drawing                                                                                                                                                                                                                                                                                                              |  | Change No. C145178-05                                 |  |
| Scale                                                                                                                                                                                                                                                                                                                         |  | Released: 20-Sep-22                                   |  |
| Format                                                                                                                                                                                                                                                                                                                        |  | TMM / TML sensor config. and cables prop. (interface) |  |
| Dimensions in mm                                                                                                                                                                                                                                                                                                              |  | TMM / TML config. capteur et prop. câbles (interface) |  |
| 1:1                                                                                                                                                                                                                                                                                                                           |  | A2                                                    |  |
|                                                                                                                                                                                                                                                                                                                               |  | Mating Dimensions / Cotes d'encombrement              |  |
|                                                                                                                                                                                                                                                                                                                               |  | Tolerances as per ISO 8015 : 2011                     |  |
|                                                                                                                                                                                                                                                                                                                               |  | Tolérances selon ISO 8015 : 2011                      |  |
|                                                                                                                                                                                                                                                                                                                               |  | Dimensions without tolerance ± 0,2                    |  |
|                                                                                                                                                                                                                                                                                                                               |  | Dimensions sans tolérances                            |  |
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|                                                                                                                                                                                                                                                                                                                               |  | Version   Revision   Sheet   Page                     |  |
|                                                                                                                                                                                                                                                                                                                               |  | 1389869-00 - A-01                                     |  |
|                                                                                                                                                                                                                                                                                                                               |  | Document number                                       |  |
|                                                                                                                                                                                                                                                                                                                               |  | 1 of 1                                                |  |