

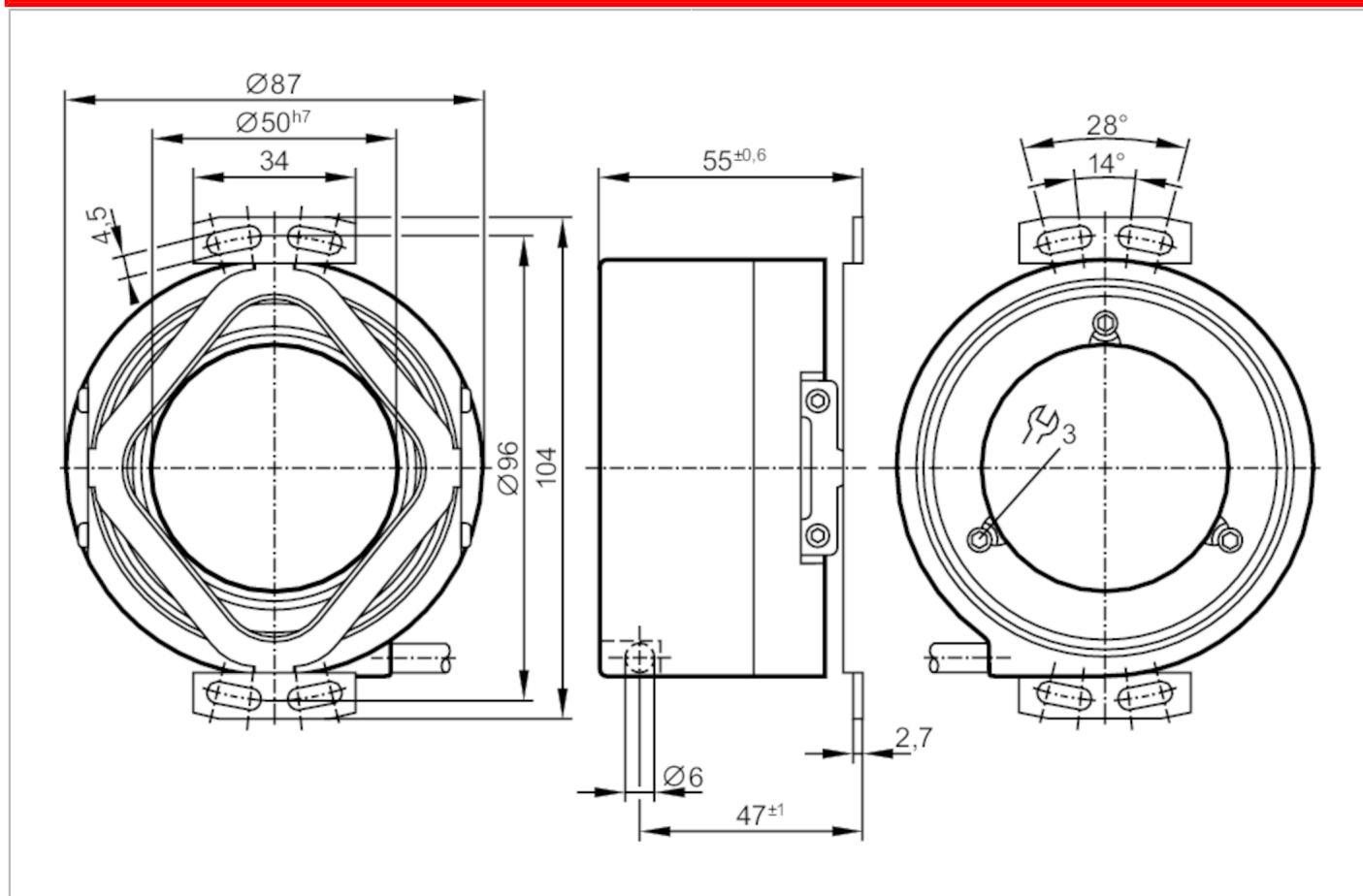
# RP6410

## Incremental encoder with hollow shaft

RP-1000-I24/N15



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| Application                  |       |                                                                                      |
|------------------------------|-------|--------------------------------------------------------------------------------------|
| Function principle           |       | incremental                                                                          |
| Electrical data              |       |                                                                                      |
| Operating voltage            | [V]   | 10...30 DC                                                                           |
| Current consumption          | [mA]  | < 150                                                                                |
| Outputs                      |       |                                                                                      |
| Electrical design            |       | HTL                                                                                  |
| Max. current load per output | [mA]  | 50                                                                                   |
| Switching frequency          | [kHz] | 300                                                                                  |
| Phase difference A und B     | [°]   | 90                                                                                   |
| Measuring/setting range      |       |                                                                                      |
| Resolution                   |       | 1000 resolution                                                                      |
| Operating conditions         |       |                                                                                      |
| Ambient temperature          | [°C]  | -30...65                                                                             |
| Note on ambient temperature  |       | higher temperature upon request<br>for the diagram see the installation instructions |
| Max. relative air humidity   | [%]   | 75; (briefly: 95 %; condensation not permissible)                                    |
| Protection                   |       | IP 64                                                                                |



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| Tests / approvals                   |                  |                                                                                                            |
|-------------------------------------|------------------|------------------------------------------------------------------------------------------------------------|
| Shock resistance                    |                  | 100 g (6 ms)                                                                                               |
| Vibration resistance                |                  | 10 g (55...2000 Hz)                                                                                        |
| MTTF                                | [years]          | 57                                                                                                         |
| Mechanical data                     |                  |                                                                                                            |
| Weight                              | [g]              | 946.8                                                                                                      |
| Dimensions                          | [mm]             | Ø 87 / L = 55                                                                                              |
| Materials                           |                  | aluminium                                                                                                  |
| Max. revolution, mechanical [U/min] |                  | 4000                                                                                                       |
| Max. starting torque                | [Nm]             | 20                                                                                                         |
| Reference temperature torque        | [°C]             | 20                                                                                                         |
| Shaft design                        |                  | continuous hollow shaft                                                                                    |
| Shaft diameter                      | [mm]             | 50                                                                                                         |
| Shaft fit                           |                  | H7                                                                                                         |
| Shaft material                      |                  | steel (1.4104)                                                                                             |
| Max. axial shaft misalignment       | [mm]             | 1,5; (Only to compensate for installation tolerances and thermal expansion.; No dynamic movement allowed.) |
| Remarks                             |                  |                                                                                                            |
| Notes                               |                  | discontinued article                                                                                       |
| Electrical connection               |                  |                                                                                                            |
| Cable: 1 m, PUR; radial             |                  |                                                                                                            |
| brown                               | A                |                                                                                                            |
| green                               | A inverted       |                                                                                                            |
| grey                                | B                |                                                                                                            |
| pink                                | B inverted       |                                                                                                            |
| red                                 | 0 index          |                                                                                                            |
| black                               | 0 index inverted |                                                                                                            |
| blue                                | 10...30V sensor  |                                                                                                            |
| white                               | 0V sensor        |                                                                                                            |
| brown/green                         | 10...30V (Up)    |                                                                                                            |
| white/green                         | 0V (Un)          |                                                                                                            |
| lilac                               | failure inverted |                                                                                                            |
| screen                              | housing          |                                                                                                            |



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### Diagrams and graphs

Pulse diagram



Output A

Output B

0 index

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