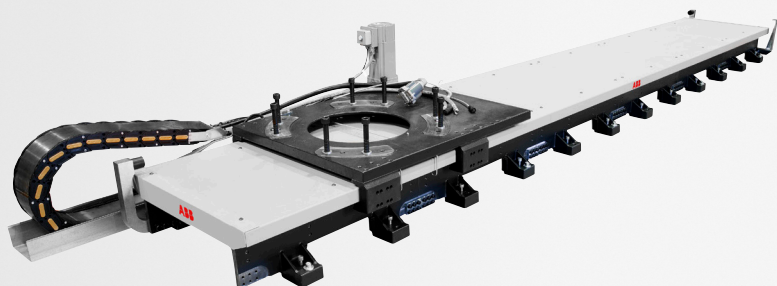


ROBOTICS

IRBT X004 - 4004/6004/7004

Track motions for robots



The IRBT X004 from ABB is the only track motion platform on the market to guarantee high speed, precision accuracy, and great flexibility.

Outstanding speed and accuracy

As first on the market, ABB's track motions and its respective robot is a seven-axis dynamic model. ABB's unique Quick-Move and TrueMove can be fully exploited, which means optimal movement for the robot and the track with actual load. Furthermore, path accuracy and speed are optimized. The speed position-to-position, which is the real benchmark of the capability of the track, has improved by more than 40% compared to earlier models.

Benefits

- Path accuracy best in class
- Simple, robust and compact design
 - Less parts, many common modules for complete range
 - Easy to adjust at installation and start up
 - The same mechanical footprint of the track for all robot models
- Improved performance
 - Shorter cycle time
 - Improved path accuracy
- Robot position chosen at installation
- Wide range of options for different applications

Options

- Mirrored version
- Double carriages
- Pedestals
- Customer Signal and power cable (spot welding, material handling, etc)
- Cable arrangement
- Lubrication (standard = manual lubrication)
 - Prepared for local adaptation (no pump included)
 - Central lubrication system incl pump
- Foundry
 - Travel length from 1.9 to max 7.9 for IRBT 4004
 - From 1.7 to max 7.7 for IRBT 6004 and 7004

| IRBT X004 | | | | |
|------------------|---------------------|------------------------|----------------------|--------------------------|
| | Robot | Travel length | # of robots | Mounting position |
| IRBT 4004 | IRB 4400/4450S/4600 | 1.9... 19.9 m/1 m step | one or two per track | Floor |
| IRBT 6004 / 7004 | IRB 6620/6650S/6700 | 1.7... 19.7 m/1 m step | one or two per track | Floor |
| IRBT 7004 | IRB 7600 | 1.7... 19.7 m/1 m step | one or two per track | Floor |

| Position to position time with max. load (seconds) | | | | | |
|---|--------------|--------------|--------------|--------------|--------------|
| | 1.0 m | 2.0 m | 3.0 m | 4.0 m | 5.0 m |
| IRBT 4004 | < 1.2 s | < 1.7 s | < 2.2 s | < 2.7 s | < 3.2 s |
| IRBT 6004 | < 1.5 s | < 2.1 s | < 2.8 s | < 3.4 s | < 4.0 s |
| IRBT 7004 | < 1.7 s | < 2.6 s | < 3.4 s | < 4.2 s | < 5.0 s |

| Performance | | |
|--------------------|--------------|----------------------|
| | Speed | Acceleration |
| IRBT 4004 | 2.0 m/s | 2.5 m/s ² |
| IRBT 6004 | 1.6 m/s | 2.0 m/s ² |
| IRBT 7004 | 1.2 m/s | 1.8 m/s ² |

*numbers are dependent on actual load

| Cable arrangement |
|-------------------------------|
| Plastic with cover - standard |