

IRBT 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)
- 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
- Cable arrangement

	Robot	Travel length	No of robots	Mounting pos
IRBT 4004	IRB 4400/ 4450S/4600	1.9... 19.9 m/1 m step	One or two/track	Floor
IRBT 6004/ 7004	IRB 6620/6650S/6700	1.7... 19.7 m/1 m step	One or two/track	Floor
IRBT 7004	IRB 7600	1.7... 19.7 m/1 m step	One or two/track	Floor

Cable arrangement

Plastic with cover - standard

Pos to Pos time (s) *)	1 m	2 m	3 m	4 m	5 m
IRBT 4004	< 1.2	< 1.7	< 2.2	< 2.7	< 3.2
IRBT 6004	< 1.5	< 2.1	< 2.8	< 3.4	< 4.0
IRBT 7004	< 1.7	< 2.6	< 3.4	< 4.2	< 5.0

*) With max load

Acceleration/Retardation (m/s²) X004

IRB 4004	2.5*
IRB 6004	2.0*
IRB 7004	1.8*

* Dep. on actual load

Speed (m/s)

IRB 4004	2.0
IRB 6004	1.6
IRB 7004	1.2

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