PUBLICLY **ISO/PAS**

SPECIFICATION

First edition
2023-11

Robotics — Collaborative applications — Test methods for measuring forces and pressures in human-robot contacts

Robotique — Applications collaboratives — Méthodes d'essai pour mesurer les forces et les pressions dans les contacts homme-robot

Reference number
ISO/PAS 5672:2023(E)

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at www.iso.org/patents. ISO shall not be held responsible for identifying any or all such patent rights.

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 299, *Robotics*.

Any feedback or questions on this document should be directed to the user’s national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

All testing methods specified in this document represent the latest state-of-the-art in the research field of contact measurement and testing with robots made for biomechanically safe interactions with humans. The procedures described in this document have been developed with a focus on practical applicability and several examples have been included in the annexes to this effect. The intended users of the document include integrators, operators, and users of collaborative applications as well as manufacturers of pressure-force measurement devices (PFMD).

The purpose of this document is to facilitate the application of other standards such as ISO 10218-2:—[1)], Annex N, robot applications and robot cells integration (based on RIA TR R15.806:2018) or ISO/TS 15066.

1) Under preparation. Stage at the time of publication: ISO/FDIS 10218-2:2023.