Application recommendations
PMA accessories and conduits in automation applications

For use in association with PMA conduits and the SH tube clamp
- **SH**: Rapid assembly tube clamp for positioning / guiding / fixing of PMA conduits
  - + **GN**: Slide half-shells
  - + **GN**: Strain relief half-shells
  - + **GN**: Strain relief half-shell reduction
  - + **GS**: Half shell insert for cable loom fixing, providing axial strain relief
  - + **TK**: Ball joint sleeve to increase flexibility and relieve the conduit at the attachment points
  - + **TR**: Strain relief insert for TK providing axial fixing of the conduit
  - + **KE**: Ball joint fitting for highest flexibility at the termination

To optimise conduit life
- **SV / SS**: Abrasion protection or connection / torsion sleeves

To optimise conduit fixing at the termination
- **ES / AS**: Termination sleeves increase the pull out strength of soft conduits at the termination

For swivel movements
- **DKLK**: Swivel base for SH rapid assembly tube clamps

For guiding of PMA conduits
- **LH**: Compact and space saving tube clamp for fixing of PMA conduits
  - + **GN**: Slide half-shells
  - + **GN**: Strain relief half-shells
  - + **GN**: Strain relief half-shell reduction

For fixation of PMA conduits
- **GG**: Straight flange fitting for PMA conduits
- **GO**: 90° flange fitting for PMA conduits

PMA conduits for automation and movable systems
- **XR90**: PA12 – Very flexible, medium-duty conduit for highly dynamic systems in robotics and automation
  - Three layer conduit
  - Very good chafing resistance
  - Integrated wear indicator
- **R90**: PA12 – Very flexible, medium-duty conduit with aboveaverage endurance strength under dynamic loads
- **PUE**: PUR – Extremely flexible conduit, especially abrasionresistant with reduced rigidity
- **PIS/PIH**: PA12 – Highly flexible conduit, good rigidity, increased fire protection characteristics
- **POS**: Polyolefin – Highly flexible conduit, excellent fatigue / reversed bending, resistance against strong acids
- **ESD**: PA12 – Very flexible conduit with antistatic properties
For Automation applications with little dynamic loading (e.g. handling robots) other PMA conduits can be considered as alternatives. Please contact the local PMA specialist or PMA AG, CH-8610 Uster for further application engineering support.

All PMA conduits for automation applications are free from halogens and cadmium and are non-corrosive.

For technical details and specifications please see our technical data sheets on www.pma.ch.