

Position command value filter

Translation of the "Original Dokumentation"

Rights reserved to make technical changes

Name: FKT_Lagesollwertfilter_en

Version:

Version: 2019/45	
Change	Letter symbol
Controller card KW-R27 added	STL

Previous version: 2018/44

Product version:

Product	Firmware Version AMK part no.
KW-R06 (O835) KW-R07 (O807) KW-R16 (O872) KW-R17 (O873)	AE-R05/R06 V1.05 2010/32 (203194)
KW-R24 (O901)	AE-R24 V2.02 2014/23 (205216)
KW-R24-R (O954)	AE-R24-R V2.11 2016/46 (206643)
KW-R25 (O902)	AE-R25 V2.02 2014/23 (205217)
KW-R26 (O903)	AE-R26 V2.02 2014/23 (205215)
KW-R27 (O957)	AE-R26 V2.12 2018/40 (207284)
iX / iC / iDT5	iX V1.00 2011/21 (203699)
iX(-R3) / iC(-R3) / iDT5(-R3) /	iX V2.08 2015/46 (206017)
ihXT /	ihX V2.11 2017/05 (206766)

Publisher:

AMK Arnold Müller GmbH & Co. KG

Gaußstraße 37 – 39,
D-73230 Kirchheim/Teck
Germany

Phone: +49 7021/50 05-0,

Fax: +49 7021/50 05-176

E-Mail: info@amk-group.com

Homepage: www.amk-group.com

Personally liable shareholder: AMK Verwaltungsgesellschaft mbH, Kirchheim/Teck

Registration court: Stuttgart HRB 231283; HRA 230681

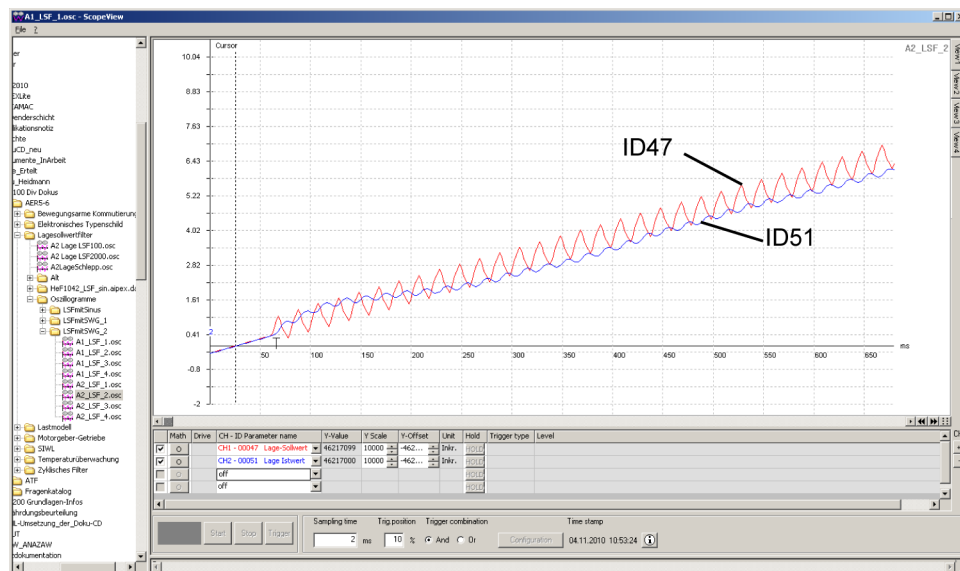
1 Position command value filter

If a drive is to follow a real axis whose position actual value is noisy, this causes a restlessness, which increases with increasing control stiffness.

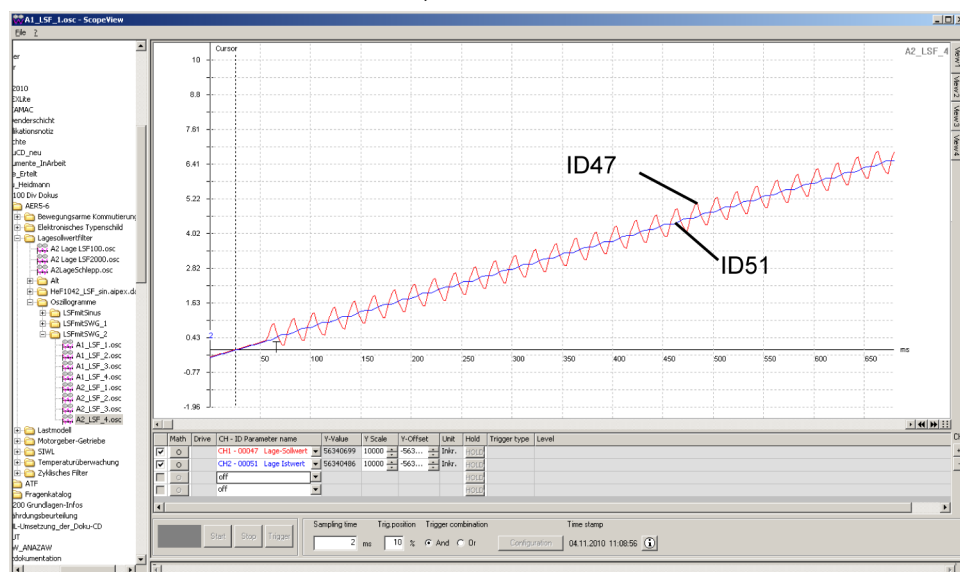
If it is not possible to improve the setpoint specification, it is advisable to filter the setpoints using parameter ID32894, 'Position command value filter'.

The position command value filter is an integrating method that can filter over periods up to 2000 ms. This allows position setpoints to be generated that no longer have the strong noise of the original measurement.

Position command value filter inactive



Position command value filter active, ID32894 = 1000 ms



Legend:

ID47 'Position command value' (Linear rising, with superimposed sine)

ID51 'Position feedback value'

1.1 Relevant parameters

Parameter	Name	Default	Minimum	Maximum	Faktor	Einheit
32894	'Position command value filter'	0	0	2000	1	ms

1.2 Associated diagnostic messages

Diagnostic number	Diagnostic-Text
--	--

2 Startup instructions

The only manipulated variable of this procedure is the filter time constant ID32894 'Position command value filter', which can be set between 0 and 2000 ms, where 0 means that the function is switched off.

The higher the time constant is chosen, the more the noise amplitude is smoothed. On the other hand, the setpoint follows a setpoint jump correspondingly slower with a higher time constant. However, this delay does not affect the position setpoint permanently, the following error is corrected.