

ISO 3951-1:2022-08 (E)

Sampling procedures for inspection by variables - Part 1: Specification for single sampling plans indexed by acceptance quality limit (AQL) for lot-by-lot inspection for a single quality characteristic and a single AQL

Contents		Page
Foreword		v
Introduction		vi
1	Scope	1
2	Normative references	1
3	Terms and definitions	2
4	Symbols	6
5	Choice of a sampling plan	7
5.1	Choice between variables and attributes	7
5.2	General	8
5.3	Choice between the s-method and -method	8
5.4	Choice of inspection level and AQL	9
6	Standard procedures for the s-method	10
6.1	General	10
6.2	Single specification limits	10
6.3	Double specification limits	11
7	Standard procedures for the -method	11
7.1	General	11
7.2	Single specification limits	11
7.3	Double specification limits	12
8	The p*-method	12
9	Switching between inspection severities	13
9.1	Rules for switching between inspection severities	14
9.2	Records for switching between inspection severities	15
10	Relation to ISO 2859-1	15
10.1	Similarities	15
10.2	Differences	16
11	Allowing for measurement uncertainty	17
12	Normality, data transformations and outliers	17
12.1	Normality	17
12.2	Data transformations	17
12.3	Outliers	18
13	Monitoring and recording of inspection results	18
13.1	Monitoring of inspection results	18
13.2	Process capability and performance assessment	18
13.3	Monitoring of process parameters	18

14	Tables	19
14.1	Form k for single sampling plans: s-method	19
14.2	Form k for single sampling plans: -method	26
14.3	Form p* single sampling plans	33
14.4	Values of f for maximum process standard deviation (MPSD)	40
14.5	Supplementary acceptance constants for qualifying towards reduced inspection	40
15	Examples	41
15.1	General	41
15.2	Examples for the s-method	41
15.3	Examples for the -method	48
15.4	Examples for the p*-method	52
	Annex A (informative) Procedures for obtaining s and	55
	Annex B (informative) Accommodating measurement variability	58
	Annex C (informative) Sampling strategies	63
	Annex D (informative) Operating characteristics for the -method	65
	Annex E (informative) Operating characteristic for the s-method - tabulated values for single sampling plans, normal inspection	66
	Annex F (informative) Consumer's risk qualities	75
	Annex G (informative) Producer's risks	82
	Annex H (informative) Construction of acceptance diagrams for double specification limits	90
	Annex I (informative) Use of the underlying software	101
	Bibliography	106