

CONTENTS

FOREWORD.....	5
INTRODUCTION.....	7
General.....	7
Device type dictionary.....	7
1 Scope.....	8
2 Normative references	8
3 Terms and definitions	9
4 General	9
4.1 Characterization scheme.....	9
4.2 OLOP and DLOP	10
4.3 Cardinality and polymorphism	11
5 Operating List of Properties (OLOP)	11
5.1 Generic block structure	11
5.2 Base conditions	12
5.3 Process case	12
5.3.1 General	12
5.3.2 Process conditions for final control elements	13
5.3.3 Other process case variable	13
5.4 Operating conditions for device design.....	13
5.4.1 General	13
5.4.2 Installation design conditions.....	14
5.4.3 Environmental design conditions.....	14
5.4.4 Process design conditions	15
5.4.5 Design conditions for valve body assembly	15
5.4.6 Pressure-temperature design conditions	15
5.5 Process equipment	15
5.5.1 General	15
5.5.2 Line or nozzle	16
5.6 Physical location	16
5.6.1 General	16
5.6.2 Available power supply	16
5.6.3 Process criticality classification	16
5.6.4 Area classification	16
6 Device List of Properties (DLOP)	17
6.1 Basic structure.....	17
6.1.1 General	17
6.1.2 Generic block structure.....	17
6.1.3 Relationship to IEC 61987-1.....	19
6.2 Identification	19
6.3 Application.....	19
6.4 Parameters of <device group>	19
6.5 Function and system design.....	19
6.5.1 General	19
6.5.2 Dependability.....	19

6.6	Input	19
6.6.1	General	19
6.6.2	Control input.....	20
6.6.3	Type of auxiliary input.....	20
6.7	Output.....	21
6.7.1	General	21
6.7.2	Type of output	21
6.8	Digital communication	22
6.8.1	General	22
6.8.2	Digital communication interface	22
6.9	Performance	23
6.9.1	General	23
6.9.2	Reference conditions for the device	23
6.9.3	Performance variable.....	23
6.10	Rated operating conditions	24
6.10.1	General	24
6.10.2	Installation conditions	24
6.10.3	Environmental design ratings.....	25
6.10.4	Process design ratings	25
6.10.5	Pressure-temperature design ratings	26
6.11	Mechanical and electrical construction	26
6.11.1	General	26
6.11.2	Overall dimensions and weight	26
6.11.3	Structural design	26
6.11.4	Explosion protection design approval.....	26
6.11.5	Codes and standards approval	26
6.12	Operability	27
6.12.1	General	27
6.12.2	Basic configuration	27
6.12.3	Parametrization	27
6.12.4	Adjustment	27
6.12.5	Operation	27
6.12.6	Diagnosis	27
6.13	Power supply	27
6.14	Certificates and approvals.....	27
6.15	Component part identifications.....	28
7	Composite devices	28
8	Additional aspects	28
Annex A (informative) Device type dictionary – Classification of final control elements		29
Bibliography.....		33
Figure 1 – Characterization of final control elements on the basis of IEC 60534-1		9
Figure 2 – Characterization of actuators		10
Figure 3 – Assignment of OLOP and DLOPs for valve body assembly.....		10
Figure 4 – Assignment of OLOP and DLOPs for actuators		11
Table 1 – Generic block structure of an OLOP		12