

		DATA SHEET		Page 1 of 2	Document ST 5-1810-0-1 Edition 0 Date 12/03/2015
DESCRIPTION		TECHNICAL SPECIFICATION FOR SINGLE LEVEL DENSITY SWITCHES TYPE 5-1810-0-1-*			
1 CONSTRUCTION FEATURES 1.1 BODY IN ANODIZED ALUMINIUM 1.2 BASIS IN STAINLESS STEEL 1.3 SEALING THROUGH GROOVE OR 3075 WITH FRONT SEALING 1.4 SINGLE LEVEL INTERVENTION WITH EXCHANGE CONTACTS 2 APPLICATION FIELD 2.1 SF6 GAS PRESSURE MONITORING 3 TECHNICAL FEATURES 3.1 ENVIRONMENT 3.1.1 OPERATING TEMPERATURE: -25°C ÷ +70°C 3.1.2 STORAGE TEMPERATURE: -40°C ÷ +80°C 3.1.3 SALT MIST RESISTANCE: 96 h in salt mist according to ASTM - B117 3.2 PRESSURE (all values are expressed in relative bar) 3.2.1 CALIBRATION RANGE (according to model): 0,05 ÷ 0,3 bar 3.2.2 OPERATING PRESSURE LIMIT 0,5 bar 3.2.3 MECHANICAL RESISTENCE LIMIT: 5 bar 3.2.4 ADMITTABLE TRANSIENT (MAX 20 ms): 2 bar x 20 cycles 3.3 PRECISION (all values are expressed in relative bar) 3.3.1 MAX HYSTERESIS IN SWITCHING BETWEEN RISE AND DESCENT 0,015 bar 3.3.2 TOLERANCE OF LEVEL INTERVENTION AT 20°C: ± 0,008 bar 3.3.3 MAX REPEATIBILITY AFTER ONE OR MORE TESTS: ± 0,008 bar 					
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EDITION	DESCRIPTION		WRITTEN	APPROVED	DATE



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3.4 PRESSURE SEALING (all values are expressed in relative bar)

- 3.4.1 MAX ADMITTED HELIUM LEAKAGE: 6 x 10⁻⁹ mbar x l/sec
3.4.2 RESISTANCE IN VACUUM FOR 1 HOUR: 10⁻³ bar

3.5 INSTALLATION

- 3.5.1 MAX ADMITTABLE COUPLING TORQUE 50 Nm

4 ELECTRICAL FEATURES

4.1 INSULATION

- 4.1.1 INSULATION TENSION TO GROUND 50 Hz: 2 Kv x 1'
4.1.2 INSULATION TENSION TO GROUND IMPULSE: 5 Kv x 1.2/50 μ s
4.1.3 INSULATION TENSION BETWEEN CONTACTS (C - NO): 1 Kv x 1'
4.1.4 INSULATION TENSION BETWEEN CONTACTS (C - NO) IMPULSE: 2.5 Kv x 1.2/50 μ s

4.2 BREAKING POWER ACCORDING TO IEC 60947.5.1

- 4.2.1 THE VALUES INDICATED MUST BE GUARANTEED FOR 100 CYCLES

NOMINAL TENSION	CHARGE IN OHM	INDUCTIVE CHARGE
250V 50 Hz	5 A	5 A cos φ 0,3
UNTIL 250V DC	0,25 A	0,2 A L/R = 15 ms
UNTIL 125V DC	0,50 A	0,32 A L/R = 15 ms
UNTIL 75V DC	0,75 A	0,75 A L/R = 15 ms
UNTIL 50V DC	1 A	1,0 A L/R = 15 ms
UNTIL 30V DC	5 A	3,0 A L/R = 15 ms
According to EN 60730-1 and/or EN 60947-1		

5 IDENTIFICATION

- 5.1 THE SCHEME BELOW SHOWS THE RATING FEATURES OF EVERY DIFFERENT MODEL
THE SWITCHING VALUES MUST BE INTENDED IN THE PRESSURE DESCENT PHASE

CODE	EXT. REF	RATING L1	TOLERANCE L1
5-1810-0-1-A	//	0,110 bar	$\pm$ 0,08 bar