

1151 Boston-Providence Turnpike
P.O. Box 9102 Norwood, MA 02062 USA
T: 781 762 4300 F: 781 762 9375 www.fmglobal.com

CERTIFICATE OF COMPLIANCE

HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT

This certificate is issued for the following equipment:

FY290-ab-cde-f. Smart Valve Positioner.

IS/I,II,III /1/ABCDEFGH/T4 Ta=60°C; Entity-102A0439; DIP/II,III/1/EFG/T4 Ta=60°C;
NI/II/2/ABCD/T4 Ta=60°C; Type 4X; Entity Parameters: Vmax = 30Vdc, Imax = 110 mA, Ci = 8nF,
Li = 12µH

- a = Digital indicator 1 (with Digital Indicator).
- b = Mounting bracket 0 or 1.
- c = Electrical connections 0 (1/2-14 NPT), A (M20×1/2) or B (Pg 13.5 DIN).
- d = Type of actuator (not included) 1, 2, 3, 4, 5, 6, 7, 8 or Z .
- e = Indication gage 0, 1, 2, 3, 4, 5 or Z.
- f = Optional items H1 (316 SST Housing).

FY301-ab-cde-f. Smart Valve Positioner.

IS/I,II,III /1/ABCDEFGH/T4 Ta=60°C; Entity-102A0439; DIP/II,III/1/EFG/T4 Ta=60°C;
NI/II/2/ABCD/T4 Ta=60°C; Type 4X; Entity Parameters: Vmax = 30Vdc, Imax = 110 mA, Ci = 8nF,
Li = 12µH

- a = Digital indicator 0 (without Indicator) or 1 (with Digital Indicator).
- b = Mounting bracket 0 or 1.
- c = Electrical connections 0 (1/2-14 NPT), A (M20×1/2) or B (Pg 13.5 DIN).
- d = Type of actuator (not included) 1, 2, 3, 4, 5, 6, 7, 8 or Z .
- e = Indication gage 0, 1, 2, 3, 4, 5 or Z.
- f = Optional items H1 (316 SST Housing).

Equipment Rating: Intrinsically safe for Class I, II and III, Division 1, Groups A, B, C, D, E, F and G in accordance with entity requirements and Control Document 102A0439; dust-ignitionproof for Classes II and III, Division 1, Groups E, F and G; nonincendive for Class I, Division 2, Group A, B, C and D hazardous (classified) outdoor (Type 4X) locations.

Approved for: SMAR Equipamentos Industriais LTDA
Av. Dr. Antonio Furlan Jr. 1028
Sertaozinho - SP CEP 14.160, BRAZIL

This certifies that the equipment described has been found to comply with the following Factory Mutual Research Approval Standards:

Approval Standard Class 3600 - November 1998
Approval Standard Class 3610 - October 1999
Approval Standard Class 3611- October 1999
Approval Standard Class 3810 - March 1989, Including Supplement #1, 1995
ANSI/NEMA 250 - 1991

Original Approval Job Identification: 3009955

Approval Granted: July 20, 2001

Subsequent Revision Reports/Date Approval Amended:

None

Factory Mutual Research Corporation



Paris Stavrianidis
Assistant Vice President
Approvals Division

July 26, 2001

Date

**APPROVED PRODUCT/SPECIFICATION TESTED - REVISION REPORT
OR ADDRESS/CONTACT CHANGE REPORT**



SENDER: Forward with updated drawings or other appropriate change information to the attention of the **Approvals Division**. Original will be returned showing course of action taken.

Additional forms may be requested by writing to the attention of the **Factory Mutual Stock Room**.

FORWARD TO:
FACTORY MUTUAL RESEARCH
1151 Boston-Providence Turnpike
P.O. Box 9102
Norwood MA 02062

Please type below: Attention of, Company Name, Address, City, State & Zip Code.

Attn: Ricardo Leite
Smar Research Corp.
4250 Veterans Memorial HWY
Holbrook - NY
ZIP 11741

Attention: **Mr. Andrew Lozinski**

Date	April 15, 2002
FORWARD BY	Ricardo Leite
TITLE	Electronic Engineer
SIGNATURE	<i>Ricardo Leite</i>
MODEL(S) AFFECTED	FY290/301 Positioners

Phone: 631-737-3111 **Fax: 631-737-3892**

PRODUCT(S) FY290/301 - POSITIONERS

DOES THIS REVISION RESULT IN MODEL/TYPE NO. CHANGE TO THE CURRENT APPROVAL GUIDE LISTING? IF YES, EXPLAIN (USE SEPARATE SHEET IF REQUIRED): YES NO

INDICATE FACTORY MUTUAL RESEARCH JOB IDENTIFICATION(S) AFFECTED
J.I. 3007267
J.I. 3009955

HAS THE MANUFACTURING LOCATION, LISTING ADDRESS, TELEPHONE NUMBER OR CONTACT PERSON CHANGED? IF YES, EXPLAIN BELOW: YES NO

REVISION DETAILS	DWG. NO. AFFECTED	REV.	NEW DWG. NO.	REV.
- Main Board - GLL1011 The Transil diode was changed from SMBJ6,5A to SM6T7V5A	102B-0283	08	102B-0283	09 - <i>on</i>
- The Terminal Block A new option was included into item Filter 2nF 1000V 25A The bill of material annex to schematic drawing was excluded and general components and Term Assembl list was included	102B-0506	01	102B-0506 LM102-0415 LM102-0161	02 - <i>on</i> 00 - <i>on</i> 04 - <i>on</i>

REASON FOR CHANGE(S)/COMMENTS:

- * The Transil diode was changed to reduce the leakage current in operational condition.
- * This new option of filter is more inexpensive.
The material control system was changed to comply with production process.

BELOW FOR FACTORY MUTUAL RESEARCH USE

COMMENTS: <i>- changes do not affect safety. Diodes have same size and ratings and new 2nF option is ^{same as} less than the previously approved 4.8nF ^{the} on the terminal block.</i> <i>- updated CDL</i>	REVISION REPORT J. I.	REVISION NOTICE NO. <i>E01061-283-7</i>	CLASS NO. <i>3610/3611/3615</i>
	FORWARD APPROVAL/SPECIFICATION TESTED AGREEMENT		
	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
EXAMINED BY <i>Mr. Leite</i>	DATE <i>May 3 2002</i>		
REVIEWED BY <i>O.W. Hyman</i>	DATE <i>6/7/02</i>		